Urinary incontinence in women (update) (appendices A–V)

National Collaborating Centre for Women's and Children's Health

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This guideline has been fully funded by NICE. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient.

Implementation of this guidance is the responsibility of local commissioners and/or providers

Contents

Appendix A Scope

Guideline title

Urinary incontinence in women: the management of urinary incontinence in women

Short title

Urinary incontinence in women

The remit

This is a partial update of 'Urinary incontinence', NICE clinical guideline 40 (2006), available from www.nice.org.uk/guidance/CG40. See section 4.3.1 for details of which sections will be updated. We will also carry out an editorial review of all recommendations to ensure that they comply with NICE's duties under equalities legislation.

This update is being undertaken as part of the guideline review cycle.

Clinical need for the guideline

Epidemiology

Urinary incontinence is the complaint of any involuntary urinary leakage. There are two main causes: overactive bladder (OAB) resulting in symptoms such as urgency, urge incontinence and/or urinary frequency; and weakness of the pelvic floor and urethral sphincter, resulting in stress incontinence. The main clinical feature of stress incontinence is the involuntary passage of urine when the intra-abdominal pressure is raised, for example by coughing or sneezing.

There is large variation in the estimates of prevalence of urinary incontinence. This relates to differences of definition, method and population characteristics. It is more common in women than men. A recent longitudinal study from

one country in the UK estimated the prevalence for women as 34%. There is a linear increase in the incidence of incontinence in women with advancing age.

Recent prospective studies on the incidence and natural history of the condition (progression, regression and resolution) suggest that urinary incontinence or urine loss occurring at least once in the past 12 months affects between 5 and 69% of women. Limited data on twins suggest a genetic component to urinary incontinence, especially stress incontinence. About 50% of urinary incontinence treatment will be unsuccessful or the condition will recur. The literature on progression and remission is scarce. Annual incidence rates in women range from 2 to 11%, with the highest incidence occurring during pregnancy. Rates of complete remission range from 0 to 13%, with the highest remission rate after pregnancy. The annual incidence of OAB ranges from 4 to 6% and the annual remission rate ranges from 2 to 3%.

Current practice

General

Lifestyle interventions such as bladder training and modification of fluids are used throughout the treatment pathway. They are an important part of strategies to manage the symptoms of urinary incontinence. They are used as part of ongoing management alongside treatment and are to control long-term symptoms if treatment fails.

Management of overactive bladder

Overactive bladder is managed primarily by lifestyle interventions, in particular retraining, followed by antimuscarinic drug therapy if retraining is not helpful. Several antimuscarinics are used to treat OAB symptoms. The 2006 NICE guideline on urinary incontinence recommends offering immediate release oxybutynin as the first pharmacological treatment. Since the publication of that guideline new drug therapies and new preparations of existing drugs have become available on the NHS. Pharmacological treatment options are not always successful or may produce unacceptable side effects, which has encouraged the

development and use of other techniques such as neuromodulation or injection of botulinum toxin A into the bladder muscle.

Neuromodulation for OAB is becoming more popular across the NHS, so it is important to evaluate how effective and acceptable it is as a treatment option. Neuromodulation includes sacral neuromodulation, percutaneous (posterior) tibial nerve stimulation (PTNS) and transcutaneous electrical nerve stimulation (TENS). Sacral neuromodulation involves threading stimulating wire electrodes through the gap in the sacral spine and placing a battery stimulator under the skin in the buttock. TENS involves using surface electrodes positioned over a particular nerve (sacral or tibial). PTNS involves inserting a stimulating needle electrode near to the posterior tibial nerve close to the ankle. This is repeated on regular outpatient visits.

Botulinum toxin A injection into the wall of the bladder is used widely for women with OAB caused by detrusor overactivity in whom antimuscarinic drugs have failed or have not been tolerated. The effect of therapy lasts for 3 to 10 months. After treatment with botulinum toxin A 10% of women will have to self-catheterise, so it is not an acceptable treatment option for all women. Botulinum toxin B is not currently recommended for treatment of OAB.

Surgery is also an option for treatment of OAB if conservative management is unsuccessful. The most common surgical option for OAB is the clam cystoplasty, in which a segment of bowel is attached to the bladder. This may not cure OAB symptoms (such as frequency, urgency or urge incontinence), and possible complications include recurrent infections and tumour development in the bowel segment. Long term surveillance is needed.

Management of stress incontinence

Stress incontinence is primarily treated by lifestyle options such as weight loss and pelvic floor muscle training. Duloxetine was recommended in the 2006 NICE guideline on urinary incontinence as an alternative to surgery for

treatment of stress incontinence. However, it has a high incidence of side effects, which makes it an unpopular treatment.

If pharmacological and non-pharmacological treatments are not successful, surgical treatment can be considered. Surgical options include mid-urethral tapes, colposuspension, sling procedures and para-urethral bulking agents. The use of mid-urethral tapes has grown over the past decade and procedures such as colposuspension and slings are now performed much less frequently. There are newer procedures that may be as effective and may have a shorter recovery period. The evidence has focussed on the retropubic approach, but many variants (including the transobturator approach and single-incision technique) have been introduced and it is not currently clear which of these approaches or techniques is most effective. Furthermore it is not clear whether the different tapes manufactured for each of these approaches are equally effective.

Mixed urinary incontinence

The original NICE guideline on urinary incontinence recommended that treatment for mixed incontinence should be determined by whether stress or urge incontinence was the dominant symptom.

The guideline

The guideline development process is described in detail on the NICE website (see section 6, ‘Further information’).

This scope defines what the guideline will (and will not) examine, and what the guideline developers will consider. The areas that will be addressed by the guideline are described in the following sections.

Population

Groups that will be covered

- Women 18 years and older with urinary incontinence (OAB, stress or mixed urinary incontinence). Data for subgroups will be examined separately, if appropriate, if it has been reported in studies.

Groups that will not be covered

Women with incontinence in association with neurological disease (this is covered by a separate guideline, see section 5.2).

Children and young people younger than 18 years.

Men.

Healthcare setting

- The guideline will cover all NHS funded settings in which NHS care is provided by primary, community, secondary and tertiary healthcare professionals.

Clinical management

Key clinical issues that will be covered

Note that guideline recommendations will normally fall within licensed indications. Exceptionally, and only if clearly supported by evidence, use outside a licensed indication may be recommended. The guideline will assume that prescribers will use a drug's summary of product characteristics to inform their decisions for individual patients.

Overactive bladder

Drugs

- Comparative effectiveness of the following drugs:
    - darifenacin
    - darifenacin – extended release
    - fesoterodine – modified release
    - oxybutynin – modified release
    - oxybutynin – transdermal
    - oxybutynin – topical gel
    - propiverine
    - propiverine – extended release
    - solifenacin

- tolterodine
- tolterodine – extended release
- trospium

trospium – extended release

in

- all women with OAB
- women with OAB caused by detrusor overactivity only.

Neuromodulation

- Sacral nerve stimulation compared with either no active treatment or placebo in:
  - all women with overactive bladder
  - women with OAB caused by detrusor overactivity only.
- PTNS compared with either no active treatment or placebo in:
  - all women with overactive bladder
  - women with OAB caused by detrusor overactivity only.
- TENS compared with no either no active treatment or placebo in:
  - all women with overactive bladder
  - women with OAB caused by detrusor overactivity only.
- A comparison of TENS, sacral nerve stimulation and PTNS (if these treatments are found to be effective compared with no treatment or placebo) in:
  - all women with overactive bladder
  - women with OAB caused by detrusor overactivity only.

Botulinum toxin A

- Botulinum toxin A compared with placebo in women with OAB caused by detrusor overactivity.

Comparison of all treatments above shown to be effective compared with no treatment or placebo

- Comparative effectiveness of pharmacological treatment and neuromodulation in all women with overactive bladder.

- Comparative effectiveness of pharmacological treatment, neuromodulation and botulinum toxin A in women with OAB caused by detrusor overactivity only.

Stress urinary incontinence

- Comparative effectiveness of the following surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure:

  - retropubic bottom up
  - retropubic top down
  - transobturator inside out
  - transobturator outside in

  - single-incision.

  Details of tape properties (colour, material, size, for example) will be reported if these have been included in the individual studies.

- Comparative effectiveness of the following interventions for women for whom the primary tape procedure has failed:

  - conservative management, looking only at:
    lifestyle interventions, specifically weight loss, fluid management and smoking cessation
    physical therapy, specifically pelvic floor muscle training
  - repeat tape procedure
  - fascial sling

- colposuspension.

Clinical issues that will not be covered

Management and treatment of comorbidities, such as pelvic organ prolapse.

Faecal incontinence with or without urinary incontinence.

Urinary incontinence in association with pregnancy (incontinence presenting in pregnancy, or surgery for incontinence before pregnancy).

The following areas addressed in the 2006 guideline will not be updated (the existing recommendations will remain as current guidance):

- Diagnostic accuracy, identification of other conditions, prediction of outcome, outcome effectiveness, and reliability of all tests, investigations and observations across the urinary incontinence pathway.
- Conservative management except in the contexts described in sections 4.3.1 a and i.
- Mulitchannel cystometry in preoperative assessment for stress incontinence.
- Multichannel cystometry with imaging before surgical treatment to determine treatment outcomes.
- Surgical procedures other than single-incision sling, transobturator tape and tension-free vaginal tape for women with urinary incontinence.

- Management of mixed urinary incontinence.

Main outcomes

Continence status (zero episodes per day).

Self reported rate of absolute symptom reduction, for example number of episodes of incontinence per day.

Patient satisfaction with treatment: for example, Patient Global Improvement (PGI), Electronic Personal Assessment Questionnaire (e-PAQ).

Adverse effects: for example, tolerability of drugs, development of new OAB symptoms after surgery for stress urinary incontinences, need for self-catheterisation after botulimum toxin A.

Incontinence-specific quality of life: for example, Incontinence – Quality of Life, Bristol Female Lower Urinary Tract Symptoms questionnaire (BFLUTS) or the King's Health Questionnaire.

Psychological outcomes, such as anxiety and depression.

Clinical measures, such as cystometric capacity, post-void residual volume.

Economic aspects

Developers will take into account both clinical and cost effectiveness when making recommendations involving a choice between alternative interventions. A review of the economic evidence will be conducted and analyses will be carried out as appropriate. The preferred unit of effectiveness is the quality-adjusted life year (QALY), and the costs considered will usually be only from an NHS and personal social services (PSS) perspective. Further detail on the methods can be found in 'The guidelines manual' (see ‘Further information’).

Status

Scope

This is the final scope.

Timing

The development of the guideline recommendations will begin in November 2011.

Related NICE guidance

Published guidance

NICE guidance to be updated

Urinary incontinence. NICE clinical guideline 40 (2006). Available from www.nice.org.uk/guidance/CG40

NICE guidance to be incorporated

This guideline will incorporate the following NICE guidance:

Percutaneous posterior tibial nerve stimulation for overactive bladder syndrome. NICE interventional procedure guidance 362 (2010). Available from www.nice.org.uk/guidance/IPG362

Insertion of biological slings for stress urinary incontinence. NICE interventional procedure guidance 154 (2006). Available from www.nice.org.uk/guidance/IPG154

Sacral nerve stimulation for urge incontinence and urgency-frequency. NICE interventional procedure guidance 64 (2004). Available from www.nice.org.uk/guidance/IPG64

Other related NICE guidance

Lower urinary tract symptoms. NICE clinical guideline 97 (2010). Available from www.nice.org.uk/guidance/CG97

Laparoscopic augmentation cystoplasty (including clam cystoplasty). NICE interventional procedure guidance 326 (2009). Available from www.nice.org.uk/guidance/IPG326

Single-incision sub-urethral short tape insertion for stress urinary incontinence in women. NICE interventional procedure guidance 262 (2008). Available from www.nice.org.uk/guidance/IPG262

Faecal incontinence. NICE clinical guideline 49 (2007). Available from www.nice.org.uk/guidance/CG49

Insertion of extraurethral (non-circumferential) retropubic adjustable compression devices for stress urinary incontinence in women. NICE interventional procedure guidance 133 (2005). Available from www.nice.org.uk/guidance/IPG133

Intramural urethral bulking procedures for stress urinary incontinence. NICE interventional procedure guidance 138 (2005). Available from www.nice.org.uk/guidance/IPG138

Guidance under development

Incontinence in neurological disease. NICE clinical guideline. Publication expected October 2012.

Further information

Information on the guideline development process is provided in:

'How NICE clinical guidelines are developed: an overview for stakeholders the public and the NHS'

'The guidelines manual'.

These are available from the NICE website (www.nice.org.uk/GuidelinesManual). Information on the progress of the guideline will also be available from the NICE website (www.nice.org.uk

Appendix B Stakeholders

The list of stakeholders for this guideline is below. Please note that stakeholders for a guideline can register at any time, and so to see the most up-to-date list, please consult the Urinary incontinence in women guideline page on the NICE website.

21st Century Catheter Project

A Little Wish

AAH Pharmaceuticals

Acupuncture Association of Chartered Physiotherapists

Adults Strategy and Commissioning Unit

Age UK

Airedale NHS Trust

Albyn Medical Ltd

Alder Hey Children's NHS Foundation Trust

All Wales Tissue Viability Nurse Forum

Allergan Ltd UK

Allocate Software PLC

Alzheimer's Society

Amdipharm plc

American Medical Systems Inc.

Anglesey Local Health Board

APOGEPHA Arzneimittel GmbH

Arrowe Park Hospital

Aspen Medical Europe

Association for Continence Advice

Association for Improvements in the Maternity Services

Association of Anaesthetists of Great Britain and Ireland

Association of British Healthcare Industries

Association of British Neurologists

Association of Chartered Physiotherapists in Women's Health

Astellas Pharma Ltd

Astra Tech Ltd

B. Braun Medical Ltd

Barchester Healthcare

Bard Limited

Barnsley Hospital NHS Foundation Trust

Barnsley Primary Care Trust

Basildon and Thurrock University Hospitals NHS Foundation Trust

Bedfordshire and Hertfordshire Tissue Viability Nurses Forum

Bedfordshire Integrated Continence Strategy Group

BES Rehab Ltd

BioForm Medical

BioMed HTC

Black and Ethnic Minority Diabetes Association

Bladder and Bowel Foundation

Boehringer Ingelheim

Boston Scientific

Bradford and Airedale Primary Care Trust

Bradford District Care Trust

Brahms UK Limited-Thermo Fisher Scientific

Bridgewater CHC

Britannia Health Products Ltd

British Acupuncture Council

British Association of Behavioural and Cognitive Psychotherapies

British Association of Plastic, Reconstructive and Aesthetic Surgeons

British Association of Social Workers

British Association of Urological Surgeons

British Dietetic Association

British Geriatrics Society

British Healthcare Trades Association

British Infection Association

British Medical Association

British Medical Journal

British Menopause Society

British National Formulary

British Psychological Society

British Society for Antimicrobial Chemotherapy

British Society for Gynaecological Endoscopy

British Society of Urogynaecology

Buckinghamshire Primary Care Trust

Bullen Healthcare Company Ltd, The

BUPA Foundation

C. R. Bard, Inc.

Calderstones Partnerships NHS Foundation Trust

Cambridge University Hospitals NHS Foundation Trust

Camden Link

Capsulation PPS

Care Quality Commission (CQC)

Central London Community Health Care NHS Trust

Central Manchester University Hospitals

Central Surrey Health

Cerebra

Chartered Physiotherapists Promoting Continence

Chartered Society of Physiotherapy

CIS' ters

City Hospitals Sunderland NHS Foundation Trust

Clarity Informatics Ltd

Clinimed Limited

Cochrane Incontinence Review Group

College of Occupational Therapists

Coloplast Limited

Commission for Social Care Inspection

Continence Advisory Service

Cook Medical Inc.

Co-operative Pharmacy Association

Covidien Ltd.

Craegmoor

Croydon Health Services NHS Trust

Cumberland Infirmary

Cumbria and Lancashire Cardiac and Stroke Network

Cystitis and Overactive Bladder Foundation

Cytori Therapeutics Inc

David Lewis Centre, The

Department for Communities and Local Government

Department of Health

Department of Health, Social Services and Public Safety - Northern Ireland

Diagnostic Ultrasound UK Ltd

Dorset Primary Care Trust

Dudley Group Of Hospitals NHS Foundation Trust

Dudley Metropolitan Borough Council

East and North Hertfordshire NHS Trust

East Sussex County Council
Elective Cesarean
Eli Lilly and Company
English Community Care Association
Equalities National Council
Faculty of Pain Medicine of the Royal College of Anaesthetists
Faculty of Public Health
Faculty of Sexual and Reproductive Healthcare
Ferring Pharmaceuticals
Fibroid Network Charity
Foundation Trust Network
G&N Medical Ltd
Galen Ltd
George Eliot Hospital NHS Trust
GlaxoSmithKline
Gloucestershire Hospitals NHS Foundation Trust
Gloucestershire LINk
Great Western Hospitals NHS Foundation Trust
Greater Manchester West Mental Health NHS Foundation Trust
Guy's and St Thomas' NHS Foundation Trust
Halton & St. Helens Primary Care Trust
Hammersmith and Fulham Primary Care Trust
Hampshire Partnership NHS Trust
Hayward Medical Communications
Health Protection Agency
Health Quality Improvement Partnership
Healthcare Improvement Scotland
Healthcare Infection Society
Heart of England NHS Foundation Trust
Help the Hospices
Hertfordshire Partnership NHS Trust
Hindu Council UK
Hockley Medical Practice
Hollister Ltd
Hull City Council
Humber NHS Foundation Trust
Independent Healthcare Advisory Services
Institute for Womens Health

Integrity Care Services Ltd.

International Neuromodulation Society

iQudos

Janssen

Johnson & Johnson

KCARE

King George Hospital

King's College Hospital NHS Foundation Trust

Kingston Primary Care Trust

Knowsley Primary Care Trust

L.IN.C.Medical

Lambeth Community Health

Lancashire Care NHS Foundation Trust

Leeds Community Healthcare NHS Trust

Leeds Teaching Hospitals NHS Trust

Leicestershire Partnership NHS Trust

Liverpool Community Health

Liverpool Women's NHS Foundation Trust

Lothian University Hospitals Trust

Luton and Dunstable Hospital NHS Trust

Maternity and Health Links

Medicines and Healthcare products Regulatory Agency

Mediplus Ltd.

Medtronic

Medtronic International Trading Sarl

Medway Community Centre

Mid Staffordshire NHS Foundation Trust

Mid Yorkshire Hospitals NHS Trust

Midlands Centre for Spinal Injuries

Ministry of Defence

Multiple Sclerosis Resource Centre

National Clinical Guideline Centre

National Collaborating Centre for Cancer

National Collaborating Centre for Mental Health

National Collaborating Centre for Women's and Children's Health

National Institute for Health Research Health Technology Assessment Programme

National Obesity Forum

National Patient Safety Agency

National Public Health Service for Wales
National Treatment Agency for Substance Misuse
Nester Healthcare Group Plc
Neuromodulation Society of UK & Ireland
Newcastle upon Tyne Hospitals NHS Foundation Trust
Newham Primary Care Trust
NHS Clinical Knowledge Summaries
NHS Connecting for Health
NHS Cornwall and Isles Of Scilly
NHS County Durham and Darlington
NHS Derbyshire county
NHS Devon
NHS Direct
NHS Hertfordshire
NHS Improvement
NHS Newcastle
NHS North East Essex
NHS Plus
NHS Sheffield
NHS South Birmingham
NHS Sussex
NHS Trafford
NHS Warwickshire Primary Care Trust
NHS West Kent
NHS Worcestershire
NICE - Centre for Evidence based Purchasing
NICE - CPHE
NICE - Medicines and Prescribing Centre
NICE - NHS Evidence
NICE - PPIP
NICE - Technical Appraisals
Niger Delta University
Norfolk Suffolk & Cambridgeshire Strategic Health Authority
Norgine Limited
North East London Community Services
North East London Foundation Trust
North Essex Mental Health Partnership Trust
North Somerset Primary Care Trust

North Tees and Hartlepool NHS Foundation Trust

North Tyneside Primary Care Trust

Northumberland Care Trust

Nottingham City Hospital

Nottingham Healthcare NHS Trust

Novartis Pharmaceuticals

Novo Nordisk Ltd

Nursing, Midwifery and Allied Health Professions Resarch Unit

Nutrition Society

Oceana Therapeutics

Oldham Primary Care Trust

Orion Pharma

Oxford Health NHS Foundation Trust

Paediatric Continence Forum

Parkinson's Disease Society

Pembrokeshire NHS Trust

PERIGON Healthcare Ltd

Perinatal Institute

Peterborough and Stamford Hospitals NHS Foundation Trust

Pfizer

PFM Medical AG

Pharmametrics GmbH

Pnn Medical

Preglem UK

Primary Care Womens Health Forum

PromoCon

Public Health Wales NHS Trust

Q-Med

RCM Consultant Midwives Forum

Robert Jones & Agnes Hunt Orthopaedic & District Hospital NHS Trust

Rochdale and District Disability Action Group

Rotherham Primary Care Trust

Royal Berkshire NHS Foundation Trust

Royal College of General Practitioners

Royal College of General Practitioners in Wales

Royal College of Midwives

Royal College of Nursing

Royal College of Obstetricians and Gynaecologists

Royal College of Paediatrics and Child Health

Royal College of Paediatrics and Child Health, Gastroenetrology, Hepatology and Nutrition

Royal College of Pathologists

Royal College of Physicians

Royal College of Psychiatrists

Royal College of Radiologists

Royal College of Surgeons of England

Royal Cornwall Hospitals NHS Trust

Royal Free Hospital NHS Foundation Trust

Royal Pharmaceutical Society

Royal Society of Medicine

Royal West Sussex NHS Trust

Royal Wolverhampton Hospitals NHS Trust

Rupanyup Hospital/Nursing Home

Sacyl

Safeguarding the Rights of Children with Autism

School of Health Sciences

Scottish Intercollegiate Guidelines Network

Sheffield Childrens Hospital

Sheffield Teaching Hospitals NHS Foundation Trust

Shine

Shire Pharmaceuticals Ltd

Sickle Cell Society

Sky Medical Technology Ltd

Social Care Institute for Excellence

Society and College of Radiographers

Society of British Neurological Surgeons

Solent NHS Trust

Solution Project Management Ltd

South Asian Health Foundation

South Essex Partnership NHS Foundation Trust

South Staffordshire Primary Care Trust

South West Yorkshire Partnership NHS Foundation Trust

Southport and Ormskirk Hospital NHS Trust

Speciality European Pharma

Spinal Injuries Association

St Mary's Hospital

Sue Ryder

Surrey Primary Care Trust
Sussex Partnership NHS Foundation Trust
Tameside Hospital NHS Foundation Trust
Tees, Esk and Wear Valleys NHS Trust
Tenscare Ltd
Teva UK
Thames Ambulance Service Ltd
The Association of the British Pharmaceutical Industry
The Neurological Alliance
The Patients Association
The Princess Alexandra Hospital NHS Trust
The Rotherham NHS Foundation Trust
The Stroke Association
The Urology Trade Association
Tissue Viability Society
Torbay and Southern Devon Health and Care NHS Trus
Tunstall Healthcare UK Ltd
UK Clinical Pharmacy Association
UK Multiple Sclerosis Specialist Nurse Association
UK Specialised Services Public Health Network
United Lincolnshire Hospitals NHS
University College London Hospital NHS Foundation Trust
University Hospital Birmingham NHS Foundation Trust
Urology User Group Coalition
Uromedica, Inc.
Uroplasty Ltd.
Urostomy Association
Verathon Medical UK Limited
Walsall Local Involvement Network
Welsh Government
Welsh Scientific Advisory Committee
West Midlands Ambulance Service NHS Trust
Western Cheshire Primary Care Trust
Western Health and Social Care Trust
Westminster Local Involvement Network
Whipps Cross University Hospital NHS Trust
Wirral University Teaching Hospital NHS Foundation Trust
Worcestershire Acute Hospitals Trust

Wound Care Alliance UK

Wren Hall Nursing Home

Wrightington, Wigan and Leigh NHS Foundation Trust

Wye Valley NHS Trust

York Hospitals NHS Foundation Trust

Yorkshire Cancer Network

Appendix C Declarations of interest

All GDG members' interests were recorded on declaration forms provided by NICE. The form covered consultancies, fee-paid work, shareholdings, fellowships and support from the healthcare industry. GDG members' interests are listed in this section.

This appendix includes all interests declared on or before April 2013.

Table C.1 GDG members' declarations of interest

GDG member	Interest
Tony Smith	Running a course sponsored by Ethicon Healthcare
Paul Abrams	Worked in a consultancy capacity and lectured on behalf of Astellas, Pfizer and Novartis
	ACA conference, which was sponsored by industry, who paid for his travel expenses
	Meeting with lawyers representing Allergan to discuss the terminology of urethral dysfunction
	Attended a meeting at the RCOG that was sponsored by industry
	Attended a meeting in Japan sponsored by Astellas
	Attended a meeting sponsored by Ferring
	Lectured for Pfizer, Ferring and Astellas
Elisabeth Adams	Received expenses and reimbursement for the training of a junior surgeon from a Boston Scientific
	Receive sponsorship to a ICS meeting held in Beijing
	Attended a sponsored meeting regarding mesh marketing for prolapse in Dublin
Kate Anders	Attended a study on incontinence in older people that was funded by Astellas
	Attended multi-disciplinary team meetings sponsored by Galen and Vesicare urology
	Attended multi-disciplinary team meetings sponsored by Astellas
Rosie Benneyworth	Attended a meetings sponsored by Astellas
Stephanie Knight	Attended a lecture sponsored by Astellas and a lunchtime meeting sponsored by Pfizer
	Attended a study day sponsored by Astellas
	Attended a meeting sponsored by Pfizer
Susie Orme	Received sponsorship to a ICS meeting held in Beijing
June Rogers	Attended the ACA conference, which was sponsored by pharmaceutical companies, who paid for her travel expenses
	Disabled Living had been given funding by Bullans and Bard to produce and print educational booklets for patients
	Received sponsorship to a ICS meeting held in Beijing
Mandy Wells	Attended the ACA conference, which was sponsored by pharmaceutical companies, who paid for her travel expenses

Table C.2 NCC staff members' declarations of interest

NCC-WCH staff	Interest
Liz Bickerdike	None declared
David Bevan	None declared
Hannah Rose Douglas	None declared
Rosalind Lai	None declared
Hugh McGuire	None declared
David James	None declared
Nitara Prassanan	None declared

Table C.3 Peer reviewers' declarations of interest

Peer reviewer	Interest
Linda Cardozo	None declared
Bob Freeman	None declared
Peter Hilton	None declared

Appendix D Review protocols

	Details	Additional comments
Review question for 2013 update	In women with OAB, what is the effectiveness of transcutaneous electrical nerve stimulation compared with no active treatment?	Transcutaneous electrical nerve stimulation is also known as TENS
Objectives	See question above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since 2006	
Population	Women over the age of 18 years with OAB	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Transcutaneous electrical nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression)	

	Details	Additional comments
	Symptom reduction (Number of episodes / per day) *Incontinence specific Quality of life* (e.g. Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* Post-void residual volume	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in the NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of Transcutaneous electrical nerve stimulation compared with no active treatment?	Transcutaneous electrical nerve stimulation is also known as TENS
Objectives	See question above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since 2006	

	Details	Additional comments
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Transcutaneous electrical nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (e.g. Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* Post-void residual volume	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB, what is the effectiveness of transcutaneous posterior tibial nerve stimulation compared with no active treatment?	Transcutaneous posterior tibial nerve stimulation can also be known as Posterior tibial nerve stimulation in the literature
Objectives	See question above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since 2006	
Population	Women over the age of18 years with OAB	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Transcutaneous posterior tibial nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological Outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (e.g. Incontinence –QOL / Kings Health Questionnaire) *Clinicians' measures* (Post-void residual volume)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	Details	Additional comments
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of transcutaneous posterior tibial nerve stimulation compared with no active treatment?	Transcutaneous posterior tibial nerve stimulation can also be known as Posterior tibial nerve stimulation in the literature
Objectives	See question above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since 2006	
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Transcutaneous posterior tibial nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	Details	Additional comments
	Adverse effects	
	(Dry mouth, constipation, blurred vision)	
	Satisfaction	
	Patient rated improvement (PGI)	
	Psychological outcomes	
	(Anxiety or depression)	
	Symptom reduction	
	(Number of episodes / per day)	
	Incontinence specific Quality of life	
	(e.g. Incontinence – QOL / Kings Health Questionnaire)	
	Clinicians' measures	
	(Post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies	
	Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009)	
	A list of excluded studies will be provided following weeding	
	Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB, what is the effectiveness of percutaneous tibial nerve stimulation (PTNS) compared with no active treatment?	Percutaneous tibial nerve stimulation is often confused with (transcutaneous) posterior tibial nerve stimulation and both are abbreviated to PTNS in the literature.
Objectives	See question above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since 2006	
Population	Women over the age of18 years with OAB	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Percutaneous (posterior) tibial nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Post-void residual volume)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	Details	Additional comments
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of percutaneous tibial nerve stimulation (PTNS) compared with no active treatment?	
Objectives	See question above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since 2006 (PTNS was introduced after 2006)	
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Percutaneous (posterior) tibial nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects*	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	(Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies
Search strategies	See appendix E
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)

	Details	**Additional comments**
Review question for 2013 update	In women with OAB, what is the comparative effectiveness of the following pharmacological interventions? • Darifenacin • Solifenacin • Tolterodine • Trospium • Propiverine	This has been narrowed from original 2006 question in two ways: Limited to comparison against the current recommendation not placebo because this recommendation was based on A grade evidence and can therefore be reliably considered as a 'gold standard'

	Details	Additional comments
	• Propiverine – extended release • Darifenacin – extended release • Fesoterodine – modified release • Oxybutynin - modified release • Oxybutynin - transdermal • Oxybutynin – topical gel • Trospium - extended release • Tolterodine - extended release	The following drugs have been removed from the list because they were do not use recommendations in the 2006 guideline and SH feedback confirmed that they are not effective and not currently used in clinical practice • Flavoxate • Imipramine • Propantheline This has been expanded from the original question in one way: The following new drugs have been added to the list • Fesoterodine – modified release • Oxybutynin - modified release • Oxybutynin - transdermal • Oxybutynin – topical gel • Trospium - extended release • Tolterodine - extended release
Objectives	The 2006 recommendation was based on high quality evidence. Will this recommendation change now there are new evidence and new drugs and/or formulations?	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over 18 years of age with OAB	
Intervention	• Darifenacin • Solifenacin • Tolterodine • Trospium • Propiverine	

	Details	Additional comments
	• Propiverine – extended release • Darifenacin – extended release • Fesoterodine – modified release • Oxybutynin - modified release • Oxybutynin - transdermal • Oxybutynin – topical gel • Trospium - extended release • Tolterodine - extended release	
Comparator or reference standard	Each intervention listed	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Post-void residual volume)	GDG to decide a priori on definition of failure and issues of clinical/patient significance For this question, we could go for patient significance not clinical significance as tolerability seems to be the major issue at play GDG report that 4 weeks was the time-point of interest This decision was reviewed when it was found that only 5 out of 10 studies provided data at this time-point so another tech team decision to look at 12 week data as well as 4 weeks data was made. After it was decided to do a network meta-analysis, the GDG chose to focus on two outcomes: Continence status and Discontinuation for any reason for the network meta-analysis
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies *Extra criteria for exclusion* Exclude studies which did not use the BNF recommended dose of the drug for the specific population Exclude studies that do not report on either continence status (zero episodes per day)	Extra criteria for exclusion were added **(in bold**) after it was decided to do a network-meta-analysis

	Details	Additional comments
	of discontinuation for any reason at either 4 or 12 weeks	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the comparative effectiveness the following pharmacological interventions? • Darifenacin • Solifenacin • Tolterodine • Trospium • Propiverine • Propiverine – extended release • Darifenacin – extended release • Fesoterodine – modified release • Oxybutynin – modified release • Oxybutynin – transdermal • Oxybutynin – topical gel • Trospium – extended release • Tolterodine – extended release	
Objectives	The 2006 recommendation was based on high quality evidence. Will this recommendation change now there are new evidence and new drugs and/or formulations?	
Language	English	

	Details	Additional comments
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over 18 years of age with OAB caused by detrusor overactivity	
Intervention	• Darifenacin • Solifenacin • Tolterodine • Trospium • Propiverine • Propiverine – extended release • Darifenacin – extended release • Fesoterodine – modified release • Oxybutynin – modified release • Oxybutynin – transdermal • Oxybutynin – topical gel • Trospium – extended release • Tolterodine – extended release	
Comparator or reference standard	Each intervention listed	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life*	GDG to decide a priori on definition of failure and issues of clinical/patient significance For this question, we could go for patient significance not clinical significance as tolerability seems to be the major issue at play, After it was decided to do a network meta-analysis, the GDG chose to focus on two outcomes Continence status and Discontinuation for any reason for the network meta-analysis

	Details	Additional comments
	(Incontinence – QOL / Kings Health Questionnaire)	
	Clinicians' measures	
	(Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies	Extra criteria for exclusion were added (**in bold**) after it was decided to do a network-meta-analysis
	Exclude non-RCT studies	
	Extra criteria for exclusion	
	Exclude studies which did not use the BNF recommended dose of the drug for the specific population	
	Exclude studies that do not report on either continence status (zero episodes per day) of discontinuation for any reason at either 4 or 12 weeks	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009)	
	A list of excluded studies will be provided following weeding	
	Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB, what is the effectiveness of sacral nerve stimulation (SNS) compared with no active treatment?	This has been expanded from the original question in one way: Limited to OAB instead of all types of UI This was based on clinical feedback during scoping process
Objectives	Will the addition of new high quality studies change the recommendation?	
Language	English	

	Details	Additional comments
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over the age of18 years with OAB	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Sacral nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding	

	Details	Additional comments
	Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of sacral nerve stimulation (SNS) compared with no active treatment?	This has been expanded from the original question in one way: • Limited to OAB instead of all types of UI This was based on clinical feedback during scoping process
Objectives	Will the addition of new high quality studies change the recommendation?	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Sacral nerve stimulation	
Comparator or reference standard	No active treatment	No active treatment = placebo/sham stimulation/ waiting list/ delayed start of treatment
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	Details	Additional comments
	Psychological outcomes (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) Incontinence specific Quality of life (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB, what is the effectiveness of sacral nerve stimulation (SNS) compared with percutaneous (posterior) tibial nerve stimulation (PTNS)	This review will only be carried out if both sacral nerve stimulation and PTNS are better than no active treatment.
Objectives	As above.	
Language	English	
Study design	Systematic reviews RCTs	

	Details	Additional comments
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over the age of18 years with OAB	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Sacral nerve stimulation	
Comparator or reference standard	Percutaneous (posterior) tibial nerve stimulation	Percutaneous tibial nerve stimulation is also known as posterior tibial nerve stimulation. Both are abbreviated to PTNS in the literature.
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	

	Details	Additional comments
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of sacral nerve stimulation (SNS) compared with percutaneous (posterior) tibial nerve stimulation (PTNS)?	This review will only be carried out if both sacral nerve stimulation and PTNS are better than sham treatment
Objectives	As above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Sacral nerve stimulation	
Comparator or reference standard	Percutaneous (posterior) tibial nerve stimulation	Percutaneous tibial nerve stimulation is also known as posterior tibial nerve stimulation. Both are abbreviated to PTNS in the literature.
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction*	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	Details	Additional comments
	(Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence –QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of BoNT A when compared with placebo?	This has been narrowed from original 2006 question in two ways: • Limited to BoNT A • Limited to women with OAB caused by detrusor overactivity Both these limitations are based on clinical feedback during scoping process. It has not, however, been specified in the current question that women should have failed conservative management as new trials may have evaluated BoNT at any stage of the care pathway.
Objectives	The 2006 recommendation was based on poor evidence. Will this recommendation	

	Details	Additional comments
	change now better studies are available?	
Language	English	
Study design	Systematic reviews RCTs	2006 guideline used evidence from case series in the absence of RCTs. There are now RCTs available.
Status	Papers published since completion of searches undertaken for 2006 guideline	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Population	Women over 18 years of age with OAB caused by detrusor overactivity	
Intervention	Botulinum toxin A	Currently unlicensed
Comparator or reference standard	Placebo	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	

	Details	Additional comments
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of BoNT A 100U when compared with BoNT-A 200U?	This question is in addition to questions originally in scope and comes from GDG feedback It will be done if BoNT-A 200U is found to be more effective than placebo
Objectives	To identify the most effective and safest dose of BoNT-A	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over 18 years of age with OAB caused by detrusor overactivity	
Intervention	Botulinum toxin A 200U	
Comparator or reference standard	Botulinum toxin A 100U	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction*	

	Details	Additional comments
	Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the effectiveness of BoNT A 100U when compared with placebo?	This question is in addition to questions originally in scope and comes from GDG feedback It will be done if BoNT-A 200U is found to be more effective than placebo
Objectives	To identify the most effective and safest dose of BoNT-A	
Language	English	

	Details	Additional comments
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over 18 years of age with OAB caused by detrusor overactivity	
Intervention	Botulinum toxin A 100U	
Comparator or reference standard	Placebo	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	

	Details	Additional comments
Equality	Equalities issues will be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB what is the effectiveness of neuromodulation (SNS or PTNS) compared with pharmacological interventions?	This review will only be carried out if both sacral nerve stimulation and PTNS are better than sham treatment
Objectives	As above	
Language	English	
Study design	Systematic reviews RCTs	
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Sacral nerve stimulation	
Comparator or reference standard	Percutaneous (posterior) tibial nerve stimulation	Percutaneous tibial nerve stimulation is also known as posterior tibial nerve stimulation. Both are abbreviated to PTNS in the literature.
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction*	GDG to decide a priori on definitions of failure and issues of clinical/patient significance

	Details	Additional comments
	(Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues with be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	In women with OAB caused by detrusor overactivity, what is the comparative effectiveness of neuromodulation (SNS or PTNS), pharmacological interventions and Botulinum toxin A?	New question based on stakeholder requests for pathway-led question. This question will only be done if Botulinum toxin A is better than placebo and is to be compared to whichever of sacral nerve stimulation or percutaneous (posterior) tibial nerve stimulation is better
Objectives	Will the addition of new high quality studies change the recommendation?	
Language	English	
Study design	Systematic reviews RCTs	

	Details	Additional comments
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over the age of18 years with OAB caused by detrusor overactivity	Clinical advice to be wary of studies that include patients with voiding dysfunction.
Intervention	Sacral nerve stimulation or percutaneous (posterior) tibial nerve stimulation	
Comparator or reference standard	Botulinum toxin A	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	GDG to decide a priori on definitions of failure and issues of clinical/patient significance
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude non-RCT studies	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	

	Details	Additional comments
Equality	Equalities issues with be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	What is the comparative effectiveness (short-term) of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure? • retropubic bottom up • retropubic top down • transobturator inside out • transobturator outside in • single incision	Details of tape properties (colour, material, size, for example) will be reported where these have been included in the individual studies.
Objectives	Will newer procedures and more evidence change the recommendations?	
Language	English	
Study design	RCTs (for short-term effectiveness)	The original review in 2006 used data from both RCTs and uncontrolled observational studies. Unlike other questions in update we have decided to continue to include data from non-RCTs as this will provide useful information about longer-term outcomes which is an important consideration for this review and the carepathway. However given the volume of studies of this type we will limit studies with long term follow up. It should be possible to report outcomes from all study types in the same grade table.
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over 18 years of age with stress urinary incontinence	
Intervention	Retropubic bottom up Retropubic top-down Transobturator inside out	Special consideration will be given to the following (where available) • Size of needle

	Details	Additional comments
	Transobturator outside in Single incision	• Material used • colour of tape • silicone-coating • de-tanged edges
Comparator or reference standard	All interventions listed in 'Intervention' above	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (mesh erosion, bladder perforation [short and long term] etc) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	GDG to decide a priori on issues of clinical/patient significance We can use the definition of tape failure defined in Smith et al. "Managing unsatisfactory outcome after mid-urethral tape insertion: ICIRS 2010" Failure may be defined in four different ways which are not mutually exclusive: (1) Failure to cure the symptom of stress incontinence. (2) Stress incontinence cured, but de novo overactive bladder (OAB) symptoms±voiding symptoms. (3) Stress incontinence not cured, and emergence of de novo OAB symptoms±voiding symptoms. (4) Other new symptoms or complications, for example, pain, erosion.
Other criteria for inclusion/ exclusion of studies	N/A	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding	

	Details	Additional comments
	Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues with be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	What is the comparative effectiveness (long-term) of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure? • retropubic bottom up • retropubic top down • transobturator inside out • transobturator outside in • single incision	Details of tape properties (colour, material, size, for example) will be reported where these have been included in the individual studies.
Objectives	Will newer procedures and more evidence change the recommendations?	
Language	English	
Study design	RCTs (for short-term effectiveness) Prospective observational studies of over 50 participants, follow up of 24 months or longer (for long-term effectiveness)	The original review in 2006 used data from both RCTs and uncontrolled observational studies. Unlike other questions in update we have decided to continue to include data from non-RCTs as this will provide useful information about longer-term outcomes which is an important consideration for this review and the carepathway. However given the volume of studies of this type we will limit studies with long term follow up. It should be possible to report outcomes from all study types in the same grade table.
Status	Papers published since completion of searches undertaken for 2006 guideline	
Population	Women over 18 years of age with stress urinary incontinence	
Intervention	Retropubic bottom up Retropubic top-down	Special consideration will be given to the following (where available)

	Details	Additional comments
	Transobturator inside out Transobturator outside in Single incision	• Size of needle • Material used • colour of tape • silicone-coating • de-tanged edges
Comparator or reference standard	All interventions listed in 'Intervention' above	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (mesh erosion, bladder perforation [short and long term] etc) *Satisfaction* Patient rated improvement (PGI) *Psychological outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence – QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	GDG to decide a priori on issues of clinical/patient significance We can use the definition of tape failure defined in Smith et al. "Managing unsatisfactory outcome after mid-urethral tape insertion: ICIRS 2010" Failure may be defined in four different ways which are not mutually exclusive: (1) Failure to cure the symptom of stress incontinence. (2) Stress incontinence cured, but de novo overactive bladder (OAB) symptoms ± voiding symptoms. (3) Stress incontinence not cured, and emergence of de novo OAB symptoms±voiding symptoms. (4) Other new symptoms or complications, for example, pain, erosion.
Other criteria for inclusion/ exclusion of studies	Exclude non-human studies Exclude retrospective studies Exclude observational studies with sample size < 50 Exclude observational studies with follow-up < 24 months Exclude studies with > 25% drop out rates	

	Details	Additional comments
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues with be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	What population characteristics are predictors of primary tape failure? • Age • BMI • Previous UI surgery • MUCP	
Objectives	To determine population-based factors that predict failure of tapes	
Language	English	
Study design	Prospective observational studies with multivariate regression analysis	
Status	All published papers	
Population	Women over 18 years of age with stress urinary incontinence	
Intervention	• Retropubic bottom up • Retropubic top-down • Transobturator inside out • Transobturator outside in • Single incision	
Comparator or reference standard	N/A	

	Details	Additional comments
Outcomes	Adjusted odds ratio	
Other criteria for inclusion/ exclusion of studies	Exclude retrospective studies and studies without multivariate regression analysis	
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues with be assessed according to processes described in NICE guidelines manual (January 2009)	

	Details	Additional comments
Review question for 2013 update	What is the comparative effectiveness of the following interventions for women with failure of the primary tape procedure? • lifestyle interventions, specifically weight loss, fluid management and smoking cessation • physical therapy, specifically pelvic floor muscle training (PFMT) • Repeat tape procedure • Fascial sling • Colposuspension	Interventions taken from Smith 2011 NaU paper
Objectives	Does this recommendations hold for women who have failed a primary tape procedure	
Language	English	
Study design	Observational studies (controlled or uncontrolled)	
Status	All published papers	
Population	Women over 18 years of age with stress urinary incontinence who have failed a primary tape procedure	

	Details	Additional comments
Intervention	• Repeat retropubic or transobturator procedure • Rectus sheath fascial sling • Colposuspension • Bulking agents • Adjustable tape • Tape plication	
Comparator or reference standard	N/A	
Outcomes	*Continence status* (No episodes per day) *Adverse effects* (Dry mouth, constipation, blurred vision) *Satisfaction* Patient rated improvement (PGI) *Psychological Outcomes* (Anxiety or depression) *Symptom reduction* (Number of episodes / per day) *Incontinence specific Quality of life* (Incontinence –QOL / Kings Health Questionnaire) *Clinicians' measures* (Mean detrusor pressure / mean cystometric capacity / post-void residual volume)	
Other criteria for inclusion/	Exclude non-human studies	

	Details	Additional comments
exclusion of studies		
Search strategies	See appendix E	
Review strategies	Evidence will be assessed for quality according to the process described in the NICE guidelines manual (January 2009) A list of excluded studies will be provided following weeding Evidence tables and an evidence profile will be used to summarise the evidence	
Equality	Equalities issues with be assessed according to processes described in NICE guidelines manual (January 2009)	

Appendix E Search strategies

2006 Search strategies

Ovid MEDLINE

1966 to May Week 2 2005

URINC_assessment_medline_250505

#	Search History	Results
1	URINARY INCONTINENCE/	11727
2	URINARY INCONTINENCE, STRESS/	5312
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11754
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1572
5	OAB.tw.	121
6	((urgency adj frequency) or (frequency adj urgency)).tw.	623
7	((urinary adj frequency) or (urinary adj urgency)).tw.	762
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1388
9	nocturia.tw.	798
10	or/1-9	20873
11	MEDICAL HISTORY TAKING/	11711
12	QUESTIONNAIRES/ and "QUALITY OF LIFE"/	8836
13	quality of life scale$.tw.	448
14	symptom scoring.tw.	90
15	((void$ or bladder$ or micturition) adj3 diar$).tw.	296
16	((frequency or fluid) adj3 volume adj3 chart$).tw.	127
17	PHYSICAL EXAMINATION/	18812
18	NEUROLOGIC EXAMINATION/	16832
19	((abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	1737

20	bonney$ test$.tw.	13
21	(cough$ adj1 test$).tw.	77
22	cough$ stress$ test$.tw.	40
23	fluid bridge test$.tw.	12
24	UTERINE PROLAPSE/di, us [Diagnosis, Ultrasonography]	275
25	popq.tw.	14
26	q tip test$.tw.	56
27	grading system$.tw.	2624
28	(oxford adj3 grad$).tw.	25
29	perineometry.tw.	35
30	pad test$.tw.	345
31	pad weigh$.tw.	422
32	URINALYSIS/	1787
33	BLADDER/us [Ultrasonography]	644
34	URODYNAMICS/	9059
35	cystometr$.tw.	2211
36	videocystometr$.tw.	19
37	videourodynamic$.tw.	146
38	((video$ or void$) adj3 cystourethrogra$).tw.	967
39	vcug.tw.	191
40	uroflowmetr$.tw.	923
41	profilometr$.tw.	622
42	leak point pressure$.tw.	297
43	CYSTOSCOPY/	4080
44	MAGNETIC RESONANCE IMAGING/	126417
45	TOMOGRAPHY, X-RAY COMPUTED/	157007
46	ULTRASONOGRAPHY/	52371
47	NEUROPHYSIOLOGY/ and di.fs.	192
48	ELECTROMYOGRAPHY/	46223
49	or/11-48	411199
50	DIAGNOSIS/	6861
51	DIAGNOSIS, DIFFERENTIAL/	255691
52	"DIAGNOSTIC TECHNIQUES AND PROCEDURES"/	743

53	DIAGNOSTIC TECHNIQUES, UROLOGICAL/	134
54	DIAGNOSTIC TESTS, ROUTINE/	3589
55	DIAGNOSTIC ERRORS/	21341
56	"SENSITIVITY AND SPECIFICITY"/	129805
57	"PREDICTIVE VALUE OF TESTS"/	60033
58	FALSE NEGATIVE REACTIONS/	11933
59	FALSE POSITIVE REACTIONS/	17074
60	or/50-59	466482
61	and/10,49,60	486
62	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	147
63	and/49,62	83
64	"DRUG UTILIZATION REVIEW"/	1428
65	(medicat$ adj2 review$).tw.	708
66	or/64-65	2107
67	and/10,66	5
68	or/61,63,67	552
69	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2861110
70	68 not 69	546

EMBASE

1980 to 2005 Week 21

URINC_assessment_embase_250505

#	**Search History**	**Results**
1	URINE INCONTINENCE/	9677
2	STRESS INCONTINENCE/	4633
3	URGE INCONTINENCE/	1486
4	MIXED INCONTINENCE/	65
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9693
6	OVERACTIVE BLADDER/	470
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1514

8	OAB.tw.	140
9	URINARY URGENCY/	444
10	URINARY FREQUENCY/	567
11	((urgency adj frequency) or (frequency adj urgency)).tw.	574
12	((urinary adj frequency) or (urinary adj urgency)).tw.	694
13	DETRUSOR DYSSYNERGIA/	1751
14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1379
15	NOCTURIA/	997
16	nocturia.tw.	752
17	or/1-16	18172
18	ANAMNESIS/	28528
19	QUESTIONNAIRE/ and "QUALITY OF LIFE"/	7796
20	quality of life scale$.tw.	442
21	symptom scoring.tw.	79
22	((void$ or bladder$ or micturition) adj3 diar$).tw.	285
23	((frequency or fluid) adj3 volume adj3 chart$).tw.	129
24	PHYSICAL EXAMINATION/	30786
25	NEUROLOGIC EXAMINATION/	10197
26	((abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	1511
27	bonney$ test$.tw.	14
28	(cough$ adj1 test$).tw.	80
29	cough$ stress$ test$.tw.	45
30	fluid bridge test$.tw.	10
31	UTERUS PROLAPSE/di [Diagnosis]	127
32	PELVIC ORGAN PROLAPSE/di [Diagnosis]	19
33	VAGINAL VAULT PROLAPSE/di [Diagnosis]	1
34	popq.tw.	14
35	q tip test$.tw.	57
36	grading system$.tw.	2326
37	(oxford adj3 grad$).tw.	21
38	perineometry.tw.	28
39	pad test$.tw.	336
40	pad weigh$.tw.	343

41	URINALYSIS/	21794
42	(bladder adj3 ultrasound).tw.	367
43	URODYNAMICS/	5366
44	CYSTOMETRY/	1355
45	URETHROCYSTOMETRY/	304
46	CYSTOURETHROGRAPHY/	906
47	videocystometr$.tw.	17
48	videourodynamic$.tw.	143
49	((video$ or void$) adj3 cystourethrogra$).tw.	828
50	vcug.tw.	176
51	UROFLOWMETRY/	929
52	profilometr$.tw.	393
53	leak point pressure$.tw.	296
54	CYSTOSCOPY/	3461
55	NUCLEAR MAGNETIC RESONANCE IMAGING/	138557
56	COMPUTER ASSISTED TOMOGRAPHY/	172980
57	ECHOGRAPHY/	75725
58	NEUROPHYSIOLOGY/	7956
59	ELECTROMYOGRAPHY/	19433
60	or/18-59	439499
61	DIAGNOSIS/	464978
62	DIFFERENTIAL DIAGNOSIS/	66550
63	DIAGNOSTIC PROCEDURE/	28904
64	UROLOGIC EXAMINATION/	186
65	DIAGNOSTIC TEST/	24360
66	DIAGNOSTIC ERROR/	12521
67	"SENSITIVITY AND SPECIFICITY"/	19508
68	"PREDICTION AND FORECASTING"/	627
69	LABORATORY DIAGNOSIS/	11141
70	or/61-69	612346
71	and/17,60,70	711

72	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	105
73	and/60,72	71
74	(medicat$ adj2 review$).tw.	774
75	and/17,74	7
76	or/71,73,75	765
77	limit 76 to human	712

CINAHL - Cumulative Index to Nursing & Allied Health Literature

1982 to May Week 3 2005

URINC_assessment_cinahl_250505

#	Search History	Results
1	URINARY INCONTINENCE/	2843
2	STRESS INCONTINENCE/	514
3	URGE INCONTINENCE/	168
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1855
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	218
6	OAB.tw.	25
7	((urgency adj frequency) or (frequency adj urgency)).tw.	55
8	((urinary adj frequency) or (urinary adj urgency)).tw.	81
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	40
10	nocturia.tw.	72
11	or/1-10	3736
12	PATIENT HISTORY TAKING/	3543
13	QUESTIONNAIRES/ and "QUALITY OF LIFE"/	2474
14	quality of life scale$.tw.	255
15	symptom scoring.tw.	6
16	((void$ or bladder$ or micturition) adj3 diar$).tw.	35
17	((frequency or fluid) adj3 volume adj3 chart$).tw.	9
18	PHYSICAL EXAMINATION/	6061

19	NEUROLOGIC EXAMINATION/	1152
20	((abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	194
21	bonney$ test$.tw.	0
22	(cough$ adj1 test$).tw.	4
23	cough$ stress$ test$.tw.	1
24	fluid bridge test$.tw.	0
25	UTERINE PROLAPSE/di [Diagnosis]	10
26	PELVIC ORGAN PROLAPSE/di [Diagnosis]	10
27	popq.tw.	0
28	q tip test$.tw.	3
29	grading system$.tw.	143
30	(oxford adj3 grad$).tw.	2
31	perineometry.tw.	5
32	pad test$.tw.	29
33	pad weigh$.tw.	5
34	URINALYSIS/	1513
35	BLADDER/us [Ultrasonography]	43
36	URODYNAMICS/	250
37	cystometr$.tw.	56
38	videocystometr$.tw.	0
39	videourodynamic$.tw.	7
40	((video$ or void$) adj3 cystourethrogra$).tw.	14
41	vcug.tw.	5
42	uroflowmetr$.tw.	10
43	profilometr$.tw.	16
44	leak point pressure$.tw.	7
45	CYSTOSCOPY/	57
46	MAGNETIC RESONANCE IMAGING/	5200
47	TOMOGRAPHY, X-RAY COMPUTED/	4770
48	ULTRASONOGRAPHY/	1642
49	NEUROPHYSIOLOGY/	206
50	ELECTROMYOGRAPHY/	2833
51	or/12-50	26637

52	DIAGNOSIS/	592
53	DIAGNOSIS, DIFFERENTIAL/	6771
54	DIAGNOSIS, UROLOGIC/	91
55	DIAGNOSTIC TESTS, ROUTINE/	305
56	DIAGNOSTIC ERRORS/	1601
57	FAILURE TO DIAGNOSE/	455
58	"SENSITIVITY AND SPECIFICITY"/	6540
59	"PREDICTIVE VALUE OF TESTS"/	3016
60	FALSE POSITIVE RESULTS/	831
61	FALSE NEGATIVE RESULTS/	489
62	or/52-61	18103
63	and/11,51,62	42
64	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	38
65	and/51,64	17
66	(medicat$ adj2 review$).tw.	222
67	and/11,66	5
68	or/63,65,67	63
69	ANIMALS/ or ANIMAL STUDIES/	3359
70	68 not 69	63

British Nursing Index

1985 to May 2005

URINC_assessment_bni_250505

#	Search History	Results
1	INCONTINENCE/	1664
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	436
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	21
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	((urinary adj frequency) or (urinary adj urgency)).tw.	3

7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
8	nocturia.tw.	7
9	or/1-8	1706
10	(history adj3 tak$).tw.	32
11	"HEALTH AND QUALITY OF LIFE"/	1797
12	quality of life scale$.tw.	7
13	symptom scoring.tw.	2
14	((void$ or bladder$ or micturition) adj3 diar$).tw.	1
15	((frequency or fluid) adj3 volume adj3 chart$).tw.	2
16	((physical or neurological or abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	60
17	bonney$ test$.tw.	0
18	(cough$ adj1 test$).tw.	0
19	cough$ stress$ test$.tw.	0
20	fluid bridge test$.tw.	0
21	((uter$ or vagina$ or pelvi$) adj3 prolaps$).tw.	14
22	popq.tw.	0
23	q tip test$.tw.	0
24	grading system$.tw.	11
25	(oxford adj3 grad$).tw.	0
26	perineometry.tw.	0
27	pad test$.tw.	2
28	pad weigh$.tw.	0
29	urinalysis$.tw.	25
30	(bladder adj3 ultrasound).tw.	10
31	urodynamic$.tw.	17
32	cystometr$.tw.	0
33	videocystometr$.tw.	0
34	videourodynamic$.tw.	0
35	((video$ or void$) adj3 cystourethrogra$).tw.	0
36	vcug.tw.	0
37	uroflowmetr$.tw.	0
38	profilometr$.tw.	0
39	leak point pressure$.tw.	0

40	cystoscop$.tw.	16
41	IMAGING/	150
42	ULTRASOUND/	127
43	electromyograph$.tw.	3
44	or/10-43	2255
45	DIAGNOSIS/	197
46	DIAGNOSTIC PROCEDURES/	423
47	(sensitivity adj3 specificity).tw.	8
48	(predict$ adj3 value$).tw.	18
49	(false adj3 (negative$ or positive$)).tw.	7
50	or/45-49	645
51	and/9,44,50	0
52	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	24
53	and/44,52	3
54	(medicat$ adj2 review$).tw.	23
55	and/9,54	0
56	or/51,53,55	3

Ovid MEDLINE

1966 to October Week 1 2005

URINC_assessment_economic_specific_medline_191005

#	Search History	Results
1	ECONOMICS/	24015
2	"COSTS AND COST ANALYSIS"/	33707
3	COST ALLOCATION/	1736
4	COST-BENEFIT ANALYSIS/	36150
5	COST CONTROL/	16508
6	COST SAVINGS/	5305
7	COST OF ILLNESS/	7377
8	COST SHARING/	1089
9	HEALTH CARE COSTS/	13119
10	DIRECT SERVICE COSTS/	731

11	DRUG COSTS/	6962
12	EMPLOYER HEALTH COSTS/	892
13	HOSPITAL COSTS/	4762
14	HEALTH RESOURCES/	5419
15	"HEALTH SERVICES NEEDS AND DEMAND"/	21400
16	HEALTH PRIORITIES/	5661
17	HEALTH EXPENDITURES/	8663
18	CAPITAL EXPENDITURES/	1750
19	FINANCIAL MANAGEMENT/	13846
20	FINANCIAL MANAGEMENT, HOSPITAL/	6237
21	QUALITY-ADJUSTED LIFE YEARS/	2300
22	"DEDUCTIBLES AND COINSURANCE"/	1024
23	MEDICAL SAVINGS ACCOUNTS/	200
24	ECONOMICS, HOSPITAL/	7656
25	ECONOMICS, MEDICAL/	5230
26	ECONOMICS, NURSING/	3667
27	ECONOMICS, PHARMACEUTICAL/	1533
28	MODELS, ECONOMIC/	2307
29	MODELS, ECONOMETRIC/	2103
30	RESOURCE ALLOCATION/	5225
31	HEALTH CARE RATIONING/	8197
32	"FEES AND CHARGES"/	6748
33	BUDGETS/	6843
34	VALUE OF LIFE/	4554
35	(financ$ or fiscal$ or funding).ti.	11111
36	(QALY$ or life?year$).ti.	166
37	(econom$ or cost$).ti.	64598
38	pharmacoeconomic$.ti.	906
39	or/1-38	237332
40	URINARY INCONTINENCE/	12067
41	URINARY INCONTINENCE, STRESS/	5471
42	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12141
43	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1706
44	OAB.tw.	166
45	((urgency adj frequency) or (frequency adj urgency)).tw.	656
46	((urinary adj frequency) or (urinary adj urgency)).tw.	794
47	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1441
48	nocturia.tw.	853
49	or/40-48	21537
50	MEDICAL HISTORY TAKING/	11995

51	QUESTIONNAIRES/ and "QUALITY OF LIFE"/	9652
52	quality of life scale$.tw.	487
53	symptom scoring.tw.	94
54	((void$ or bladder$ or micturition) adj3 diar$).tw.	327
55	((frequency or fluid) adj3 volume adj3 chart$).tw.	134
56	PHYSICAL EXAMINATION/	19345
57	NEUROLOGIC EXAMINATION/	17095
58	((abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	1782
59	bonney$ test$.tw.	13
60	(cough$ adj1 test$).tw.	79
61	cough$ stress$ test$.tw.	41
62	fluid bridge test$.tw.	12
63	UTERINE PROLAPSE/di, us [Diagnosis, Ultrasonography]	289
64	popq.tw.	16
65	q tip test$.tw.	57
66	grading system$.tw.	2733
67	(oxford adj3 grad$).tw.	26
68	perineometry.tw.	37
69	pad test$.tw.	353
70	pad weigh$.tw.	439
71	URINALYSIS/	1926
72	BLADDER/us [Ultrasonography]	673
73	URODYNAMICS/	9272
74	cystometr$.tw.	2266
75	videocystometr$.tw.	19
76	videourodynamic$.tw.	150
77	((video$ or void$) adj3 cystourethrogra$).tw.	990
78	vcug.tw.	196
79	uroflowmetr$.tw.	945
80	profilometr$.tw.	642
81	leak point pressure$.tw.	315
82	CYSTOSCOPY/	4156
83	MAGNETIC RESONANCE IMAGING/	131953
84	TOMOGRAPHY, X-RAY COMPUTED/	161203
85	ULTRASONOGRAPHY/	52722
86	NEUROPHYSIOLOGY/ and di.fs.	197
87	ELECTROMYOGRAPHY/	47078
88	or/50-87	423417
89	DIAGNOSIS/	6936
90	DIAGNOSIS, DIFFERENTIAL/	261009

91	"DIAGNOSTIC TECHNIQUES AND PROCEDURES"/	798
92	DIAGNOSTIC TECHNIQUES, UROLOGICAL/	145
93	DIAGNOSTIC TESTS, ROUTINE/	3752
94	DIAGNOSTIC ERRORS/	21725
95	"SENSITIVITY AND SPECIFICITY"/	138611
96	"PREDICTIVE VALUE OF TESTS"/	63086
97	FALSE NEGATIVE REACTIONS/	12183
98	FALSE POSITIVE REACTIONS/	17437
99	or/89-98	483366
100	and/49,88,99	503
101	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	147
102	and/88,101	83
103	"DRUG UTILIZATION REVIEW"/	1585
104	(medicat$ adj2 review$).tw.	748
105	or/103-104	2299
106	and/49,105	6
107	or/100,102,106	570
108	and/39,107	7
109	limit 108 to humans	7

EMBASE

1980 to 2005 Week 42

URINC_assessment_economic_specific_embase_191005

#	Search History	Results
1	ECONOMICS/	4693
2	HEALTH ECONOMICS/	7835
3	ECONOMIC EVALUATION/	2680
4	COST BENEFIT ANALYSIS/	21676
5	COST CONTROL/	13145
6	COST EFFECTIVENESS ANALYSIS/	40007
7	COST MINIMIZATION ANALYSIS/	873
8	COST OF ILLNESS/	2713
9	COST UTILITY ANALYSIS/	1433
10	COST/	17781
11	HEALTH CARE COST/	43514

12	DRUG COST/	24693
13	HEALTH CARE FINANCING/	7742
14	HOSPITAL COST/	4743
15	SOCIOECONOMICS/	20943
16	ECONOMIC ASPECT/	63700
17	QUALITY-ADJUSTED LIFE YEARS/	2136
18	FINANCIAL MANAGEMENT/	16393
19	PHARMACOECONOMICS/	846
20	RESOURCE ALLOCATION/	5545
21	(financ$ or fiscal$ or funding).ti.	5099
22	(QALY$ or life?year$).ti.	119
23	(econom$ or cost$).ti.	42036
24	pharmacoeconomic$.ti.	1072
25	or/1-24	231528
26	URINE INCONTINENCE/	10096
27	STRESS INCONTINENCE/	4809
28	URGE INCONTINENCE/	1585
29	MIXED INCONTINENCE/	74
30	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	10020
31	OVERACTIVE BLADDER/	609
32	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1641
33	OAB.tw.	176
34	URINARY URGENCY/	563
35	URINARY FREQUENCY/	706
36	((urgency adj frequency) or (frequency adj urgency)).tw.	611
37	((urinary adj frequency) or (urinary adj urgency)).tw.	734
38	DETRUSOR DYSSYNERGIA/	1799
39	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1435
40	NOCTURIA/	1074
41	nocturia.tw.	805
42	or/26-41	19015
43	ANAMNESIS/	32324
44	QUESTIONNAIRE/ and "QUALITY OF LIFE"/	8571
45	quality of life scale$.tw.	475
46	symptom scoring.tw.	82
47	((void$ or bladder$ or micturition) adj3 diar$).tw.	315
48	((frequency or fluid) adj3 volume adj3 chart$).tw.	139
49	PHYSICAL EXAMINATION/	33459
50	NEUROLOGIC EXAMINATION/	11014
51	((abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	1551

52	bonney$ test$.tw.	14
53	(cough$ adj1 test$).tw.	86
54	cough$ stress$ test$.tw.	47
55	fluid bridge test$.tw.	10
56	UTERUS PROLAPSE/di [Diagnosis]	132
57	PELVIC ORGAN PROLAPSE/di [Diagnosis]	34
58	VAGINAL VAULT PROLAPSE/di [Diagnosis]	2
59	popq.tw.	15
60	q tip test$.tw.	58
61	grading system$.tw.	2422
62	(oxford adj3 grad$).tw.	22
63	perineometry.tw.	28
64	pad test$.tw.	347
65	pad weigh$.tw.	354
66	URINALYSIS/	22875
67	(bladder adj3 ultrasound).tw.	373
68	URODYNAMICS/	5557
69	CYSTOMETRY/	1426
70	URETHROCYSTOMETRY/	304
71	CYSTOURETHROGRAPHY/	927
72	videocystometr$.tw.	17
73	videourodynamic$.tw.	150
74	((video$ or void$) adj3 cystourethrogra$).tw.	854
75	vcug.tw.	183
76	UROFLOWMETRY/	960
77	profilometr$.tw.	403
78	leak point pressure$.tw.	307
79	CYSTOSCOPY/	3626
80	NUCLEAR MAGNETIC RESONANCE IMAGING/	144957
81	COMPUTER ASSISTED TOMOGRAPHY/	179624
82	ECHOGRAPHY/	78307
83	NEUROPHYSIOLOGY/	8344
84	ELECTROMYOGRAPHY/	19940
85	or/43-84	459416
86	DIAGNOSIS/	465001
87	DIFFERENTIAL DIAGNOSIS/	69579
88	DIAGNOSTIC PROCEDURE/	31113
89	UROLOGIC EXAMINATION/	199
90	DIAGNOSTIC TEST/	25927
91	DIAGNOSTIC ERROR/	13207

92	"SENSITIVITY AND SPECIFICITY"/	22123
93	"PREDICTION AND FORECASTING"/	658
94	LABORATORY DIAGNOSIS/	11816
95	or/86-94	622003
96	and/42,85,95	738
97	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	107
98	and/85,97	73
99	(medicat$ adj2 review$).tw.	810
100	and/42,99	8
101	or/96,98,100	795
102	and/25,101	25
103	limit 102 to human	25

CINAHL - Cumulative Index to Nursing & Allied Health Literature

1982 to October Week 2 2005

URINC_assessment_economic_specific_cinahl_191005

#	Search History	Results
1	ECONOMICS/	568
2	"COSTS AND COST ANALYSIS"/	3304
3	COST BENEFIT ANALYSIS/	4401
4	COST CONTROL/	2114
5	COST SAVINGS/	2781
6	COST OF ILLNESS/	971
7	HEALTH CARE COSTS/	5470
8	ECONOMIC ASPECTS OF ILLNESS/	971
9	ECONOMICS, PHARMACEUTICAL/	718
10	HEALTH CARE FINANCING/	2540
11	FINANCIAL MANAGEMENT/	2780
12	HOSPITAL COST/	834
13	SOCIOECONOMIC FACTORS/	9945
14	HEALTH RESOURCE ALLOCATION/	2358
15	(financ$ or fiscal$ or funding).ti.	3792
16	(QALY$ or life?year$).ti.	8
17	(econom$ or cost$).ti.	11523
18	pharmacoeconomic$.ti.	93

19	or/1-18	41637
20	URINARY INCONTINENCE/	2991
21	STRESS INCONTINENCE/	554
22	URGE INCONTINENCE/	197
23	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1971
24	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	269
25	OAB.tw.	42
26	((urgency adj frequency) or (frequency adj urgency)).tw.	60
27	((urinary adj frequency) or (urinary adj urgency)).tw.	89
28	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	46
29	nocturia.tw.	88
30	or/20-29	3967
31	PATIENT HISTORY TAKING/	3693
32	QUESTIONNAIRES/ and "QUALITY OF LIFE"/	2768
33	quality of life scale$.tw.	288
34	symptom scoring.tw.	6
35	((void$ or bladder$ or micturition) adj3 diar$).tw.	43
36	((frequency or fluid) adj3 volume adj3 chart$).tw.	10
37	PHYSICAL EXAMINATION/	6442
38	NEUROLOGIC EXAMINATION/	1218
39	((abdominal or pelvic or vagina$ or bimanual) adj examin$).tw.	200
40	bonney$ test$.tw.	0
41	(cough$ adj1 test$).tw.	6
42	cough$ stress$ test$.tw.	2
43	fluid bridge test$.tw.	0
44	UTERINE PROLAPSE/di [Diagnosis]	11
45	PELVIC ORGAN PROLAPSE/di [Diagnosis]	12
46	popq.tw.	3
47	q tip test$.tw.	3
48	grading system$.tw.	150
49	(oxford adj3 grad$).tw.	2
50	perineometry.tw.	7
51	pad test$.tw.	31
52	pad weigh$.tw.	6
53	URINALYSIS/	1585
54	BLADDER/us [Ultrasonography]	51
55	URODYNAMICS/	268
56	cystometr$.tw.	57
57	videocystometr$.tw.	0
58	videourodynamic$.tw.	7

59	((video$ or void$) adj3 cystourethrogra$).tw.	18
60	vcug.tw.	8
61	uroflowmetr$.tw.	11
62	profilometr$.tw.	20
63	leak point pressure$.tw.	8
64	CYSTOSCOPY/	67
65	MAGNETIC RESONANCE IMAGING/	5634
66	TOMOGRAPHY, X-RAY COMPUTED/	5085
67	ULTRASONOGRAPHY/	1749
68	NEUROPHYSIOLOGY/	216
69	ELECTROMYOGRAPHY/	2980
70	or/31-69	28480
71	DIAGNOSIS/	616
72	DIAGNOSIS, DIFFERENTIAL/	7284
73	DIAGNOSIS, UROLOGIC/	99
74	DIAGNOSTIC TESTS, ROUTINE/	318
75	DIAGNOSTIC ERRORS/	1702
76	FAILURE TO DIAGNOSE/	477
77	"SENSITIVITY AND SPECIFICITY"/	7168
78	"PREDICTIVE VALUE OF TESTS"/	3327
79	FALSE POSITIVE RESULTS/	892
80	FALSE NEGATIVE RESULTS/	514
81	or/71-80	19552
82	and/30,70,81	46
83	((((stress$ or mix$ or urg$ or urin$) adj3 incontinen$) or (bladder$ adj3 (overactiv$ or incontinen$)) or OAB or ((urgency adj frequency) or (frequency adj urgency)) or ((urinary adj frequency) or (urinary adj urgency)) or (detrusor$ adj3 (instabilit$ or overactiv$)) or nocturia) adj1 (diagnos$ or assess$ or investigat$)).ti.	41
84	and/70,83	19
85	(medicat$ adj2 review$).tw.	238
86	and/30,85	5
87	or/82,84,86	68
88	and/19,87	0

Ovid MEDLINE

1966 to February Week 1 2006

URINC_antibiotics_UTI_medline_100206

#	Search History	Results

1	URINARY INCONTINENCE/	12290
2	URINARY INCONTINENCE, STRESS/	5612
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12217
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1329
5	OAB.tw.	183
6	((urgency adj frequency) or (frequency adj urgency)).tw.	433
7	((urinary adj frequency) or (urinary adj urgency)).tw.	820
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1467
9	nocturia.tw.	890
10	or/1-9	21730
11	exp URINARY TRACT INFECTIONS/	29193
12	(urin$ adj3 tract$ adj3 infect$).tw.	17894
13	or/11-12	35264
14	exp ANTI-BACTERIAL AGENTS/	344276
15	antibiotic$.tw.	131081
16	ANTI-INFECTIVE AGENTS, URINARY/	1949
17	or/14-16	394405
18	and/10,13,17	148
19	limit 18 to humans	144

EMBASE

1980 to 2006 Week 05

URINC_antibiotics_UTI_embase_100206

#	**Search History**	**Results**
1	URINE INCONTINENCE/	10484
2	STRESS INCONTINENCE/	5008
3	URGE INCONTINENCE/	1668
4	MIXED INCONTINENCE/	87
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	10370
6	OVERACTIVE BLADDER/	743
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1747
8	OAB.tw.	201
9	URINARY URGENCY/	645
10	URINARY FREQUENCY/	804
11	((urgency adj frequency) or (frequency adj urgency)).tw.	635
12	((urinary adj frequency) or (urinary adj urgency)).tw.	770
13	DETRUSOR DYSSYNERGIA/	1851

14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1491
15	NOCTURIA/	1127
16	nocturia.tw.	840
17	or/1-16	19817
18	URINARY TRACT INFECTION/	23492
19	(urin$ adj3 tract$ adj3 infect$).tw.	16089
20	or/18-19	27072
21	exp ANTIBIOTIC AGENT/	443193
22	antibiotic$.tw.	110648
23	exp URINARY TRACT ANTIINFECTIVE AGENT/	60987
24	or/21-23	487914
25	and/17,20,24	287
26	limit 25 to human	283

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to February Week 1 2006

URINC_antibiotics_UTI_cinahl_100206

#	Search History	Results
1	URINARY INCONTINENCE/	3057
2	STRESS INCONTINENCE/	587
3	URGE INCONTINENCE/	209
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	2023
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	289
6	OAB.tw.	47
7	((urgency adj frequency) or (frequency adj urgency)).tw.	64
8	((urinary adj frequency) or (urinary adj urgency)).tw.	92
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	47
10	nocturia.tw.	89
11	or/1-10	4085
12	exp URINARY TRACT INFECTIONS/	1864
13	(urin$ adj3 tract$ adj3 infect$).tw.	1255
14	or/12-13	2230
15	exp ANTIBIOTICS/	8889
16	antibiotic$.tw.	5634
17	ANTIINFECTIVE AGENTS, URINARY/	53
18	or/15-17	11612
19	and/11,14,18	21

Ovid MEDLINE

1966 to August Week 5 2005

URINC_questionnaires_reliability_validity_medline_120905

#	Search History	Results
1	URINARY INCONTINENCE/	11954
2	URINARY INCONTINENCE, STRESS/	5423
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12020
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1664
5	OAB.tw.	152
6	((urgency adj frequency) or (frequency adj urgency)).tw.	650
7	((urinary adj frequency) or (urinary adj urgency)).tw.	781
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1425
9	nocturia.tw.	835
10	or/1-9	21323
11	QUESTIONNAIRES/	126816
12	bfluts.tw.	9
13	bristol female lower urinary tract symptom$.tw.	17
14	suiqq.tw.	0
15	quality of life questionnaire$.tw.	1659
16	iciq.tw.	8
17	international consultation on incontinence questionnaire$.tw.	6
18	oab-q.tw.	5
19	(overactive bladder$ adj10 questionnaire$).tw.	23
20	udi.tw.	45
21	urogenital distress inventory$.tw.	52
22	isi.tw.	1679
23	incontinence severity index$.tw.	21
24	seapi.tw.	16
25	khq.tw.	20
26	king's health questionnaire$.tw.	30
27	iiq.tw.	45
28	incontinence impact questionnaire$.tw.	71
29	uiss.tw.	9
30	urinary incontinence severity score$.tw.	7
31	contilife$.tw.	5
32	sip.tw.	890
33	sickness impact profile$.tw.	767

34	pgi.tw.	998
35	patient$ global impression$.tw.	75
36	sguis.tw.	1
37	st george$ urinary incontinence score$.tw.	1
38	lis.tw.	990
39	leicester impact scale$.tw.	1
40	leicester urinary symptom questionnaire$.tw.	1
41	or/11-40	132290
42	"REPRODUCIBILITY OF RESULTS"/	110871
43	reproducib$.tw.	59520
44	repeatab$.tw.	7206
45	reliab$.tw.	147931
46	valid$.tw.	138454
47	or/42-46	376112
48	and/10,41,47	215
49	limit 48 to humans	215

EMBASE

1980 to 2005 Week 37

URINC_questionnaires_reliability_validity_embase_120905

#	Search History	Results
1	URINE INCONTINENCE/	10009
2	STRESS INCONTINENCE/	4772
3	URGE INCONTINENCE/	1564
4	MIXED INCONTINENCE/	72
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9945
6	OVERACTIVE BLADDER/	584
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1617
8	OAB.tw.	167
9	URINARY URGENCY/	533
10	URINARY FREQUENCY/	676
11	((urgency adj frequency) or (frequency adj urgency)).tw.	601
12	((urinary adj frequency) or (urinary adj urgency)).tw.	726
13	DETRUSOR DYSSYNERGIA/	1790
14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1428
15	NOCTURIA/	1054
16	nocturia.tw.	793

17	or/1-16	18835
18	QUESTIONNAIRE/	82429
19	bfluts.tw.	8
20	bristol female lower urinary tract symptom$.tw.	17
21	suiqq.tw.	0
22	quality of life questionnaire$.tw.	1672
23	iciq.tw.	10
24	international consultation on incontinence questionnaire$.tw.	8
25	oab-q.tw.	5
26	(overactive bladder$ adj10 questionnaire$).tw.	23
27	udi.tw.	44
28	urogenital distress inventory$.tw.	53
29	isi.tw.	1352
30	incontinence severity index$.tw.	18
31	seapi.tw.	17
32	khq.tw.	19
33	king's health questionnaire$.tw.	30
34	iiq.tw.	43
35	incontinence impact questionnaire$.tw.	70
36	uiss.tw.	9
37	urinary incontinence severity score$.tw.	6
38	contilife$.tw.	4
39	sip.tw.	873
40	sickness impact profile$.tw.	691
41	pgi.tw.	594
42	patient$ global impression$.tw.	85
43	sguis.tw.	1
44	st george$ urinary incontinence score$.tw.	1
45	lis.tw.	838
46	leicester impact scale$.tw.	1
47	leicester urinary symptom questionnaire$.tw.	1
48	or/18-47	86793
49	REPRODUCIBILITY/	23872
50	reproducib$.tw.	54268
51	repeatab$.tw.	6460
52	RELIABILITY/	38477
53	reliab$.tw.	129738
54	VALIDATION PROCESS/	35537
55	valid$.tw.	127876
56	or/49-55	307879

57	and/17,48,56	220
58	limit 57 to human	219

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to September Week 1 2005

URINC_questionnaires_reliability_validity_cinahl_120905

#	Search History	Results
1	URINARY INCONTINENCE/	2955
2	STRESS INCONTINENCE/	548
3	URGE INCONTINENCE/	191
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1944
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	255
6	OAB.tw.	37
7	((urgency adj frequency) or (frequency adj urgency)).tw.	59
8	((urinary adj frequency) or (urinary adj urgency)).tw.	87
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	45
10	nocturia.tw.	83
11	or/1-10	3909
12	QUESTIONNAIRES/	55351
13	bfluts.tw.	2
14	bristol female lower urinary tract symptom$.tw.	6
15	suiqq.tw.	0
16	quality of life questionnaire$.tw.	624
17	iciq.tw.	2
18	international consultation on incontinence questionnaire$.tw.	1
19	oab-q.tw.	1
20	(overactive bladder$ adj10 questionnaire$).tw.	3
21	udi.tw.	23
22	urogenital distress inventory$.tw.	28
23	isi.tw.	117
24	incontinence severity index$.tw.	5
25	khq.tw.	4
26	king's health questionnaire$.tw.	8
27	iiq.tw.	40
28	incontinence impact questionnaire$.tw.	56
29	uiss.tw.	0
30	urinary incontinence severity score$.tw.	2

31	contilife$.tw.	1
32	SICKNESS IMPACT PROFILE/	450
33	sip.tw.	611
34	sickness impact profile$.tw.	625
35	pgi.tw.	23
36	patient$ global impression$.tw.	16
37	sguis.tw.	0
38	st george$ urinary incontinence score$.tw.	0
39	lis.tw.	124
40	leicester impact scale$.tw.	0
41	leicester urinary symptom questionnaire$.tw.	0
42	or/12-41	56372
43	REPRODUCIBILITY OF RESULTS/	2022
44	reproducib$.tw.	1178
45	repeatab$.tw.	316
46	"RELIABILITY AND VALIDITY"/	5630
47	exp RELIABILITY/	23945
48	reliab$.tw.	12861
49	VALIDITY/	2652
50	valid$.tw.	17044
51	or/43-50	46230
52	and/11,42,51	79
53	ANIMALS/ or ANIMAL STUDIES/	3492
54	52 not 53	79

British Nursing Index
1985 to August 2005

URINC_questionnaires_reliability_validity_bni_120905

#	Search History	Results
1	INCONTINENCE/	1682
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	440
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	24
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	((urinary adj frequency) or (urinary adj urgency)).tw.	3
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
8	nocturia.tw.	8

9	or/1-8	1725
10	"HEALTH AND QUALITY OF LIFE"/	1860
11	RESEARCH METHODS/	2528
12	bfluts.tw.	0
13	bristol female lower urinary tract symptom$.tw.	0
14	suiqq.tw.	0
15	quality of life questionnaire$.tw.	12
16	iciq.tw.	0
17	international consultation on incontinence questionnaire$.tw.	0
18	oab-q.tw.	0
19	(overactive bladder$ adj10 questionnaire$).tw.	0
20	udi.tw.	0
21	urogenital distress inventory$.tw.	1
22	isi.tw.	0
23	incontinence severity index$.tw.	0
24	seapi.tw.	0
25	khq.tw.	0
26	king's health questionnaire$.tw.	0
27	iiq.tw.	0
28	incontinence impact questionnaire$.tw.	1
29	uiss.tw.	0
30	urinary incontinence severity score$.tw.	0
31	contilife$.tw.	0
32	sip.tw.	9
33	sickness impact profile$.tw.	3
34	pgi.tw.	0
35	patient$ global impression$.tw.	0
36	sguis.tw.	0
37	st george$ urinary incontinence score$.tw.	0
38	lis.tw.	0
39	leicester impact scale$.tw.	0
40	leicester urinary symptom questionnaire$.tw.	0
41	or/10-40	4323
42	reproducib$.tw.	4
43	repeatab$.tw.	0
44	reliab$.tw.	439
45	valid$.tw.	835
46	or/42-45	1055
47	and/9,41,46	2

PsycINFO

1967 to August Week 5 2005

URINC_questionnaires_reliability_validity_psycinfo_120905

#	Search History	Results
1	URINARY INCONTINENCE/	1093
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	469
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	44
4	OAB.tw.	8
5	((urgency adj frequency) or (frequency adj urgency)).tw.	14
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	10
7	nocturia.tw.	24
8	or/1-7	1310
9	exp QUESTIONNAIRES/	8438
10	bfluts.tw.	0
11	bristol female lower urinary tract symptom$.tw.	0
12	suiqq.tw.	0
13	quality of life questionnaire$.tw.	481
14	iciq.tw.	0
15	international consultation on incontinence questionnaire$.tw.	0
16	oab-q.tw.	2
17	(overactive bladder$ adj10 questionnaire$).tw.	3
18	udi.tw.	5
19	urogenital distress inventory$.tw.	3
20	isi.tw.	795
21	incontinence severity index$.tw.	1
22	seapi.tw.	0
23	khq.tw.	1
24	king's health questionnaire$.tw.	1
25	iiq.tw.	10
26	incontinence impact questionnaire$.tw.	7
27	uiss.tw.	1
28	urinary incontinence severity score$.tw.	0
29	contilife$.tw.	0
30	sip.tw.	342
31	sickness impact profile$.tw.	246
32	pgi.tw.	93
33	patient$ global impression$.tw.	45

34	sguis.tw.	0
35	st george$ urinary incontinence score$.tw.	0
36	lis.tw.	114
37	leicester impact scale$.tw.	0
38	leicester urinary symptom questionnaire$.tw.	0
39	or/9-38	10247
40	reproducib$.tw.	1168
41	repeatab$.tw.	460
42	TEST RELIABILITY/	18513
43	reliab$.tw.	54004
44	TEST VALIDITY/	27666
45	valid$.tw.	87333
46	or/40-45	120442
47	and/8,39,46	11
48	limit 47 to human	11

Ovid MEDLINE

1966 to March Week 3 2005

URINC_lifestyle_changes_without_filter_medline_290305

#	Search History	Results
1	URINARY INCONTINENCE/	11587
2	URINARY INCONTINENCE, STRESS/	5250
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11594
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1529
5	OAB.tw.	112
6	((urgency adj frequency) or (frequency adj urgency)).tw.	607
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1373
8	nocturia.tw.	778
9	or/1-8	20253
10	LIFESTYLE/	20946
11	HEALTH BEHAVIOR/	11980
12	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	5137
13	DRINKING/	9056
14	DRINKING BEHAVIOR/	4626

15	CARBONATED BEVERAGES/	741
16	ALCOHOL DRINKING/	29921
17	CAFFEINE/	14296
18	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	65474
19	DIET/	64657
20	WEIGHT GAIN/	11222
21	WEIGHT LOSS/	9319
22	FOOD HABITS/	10265
23	(weigh$ adj5 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	83296
24	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	987
25	SMOKING CESSATION/	7870
26	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	10270
27	EXERCISE/	31020
28	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	26010
29	or/10-28	330533
30	and/9,29	584
31	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2835376
32	30 not 31	555
33	FEMALE/ or WOMEN/ or (female$ or wom?n).mp.	4214390
34	and/32-33	425

EMBASE

1980 to 2005 Week 13

URINC_lifestyle_changes_without_filter_embase_290305

#	**Search History**	**Results**
1	URINE INCONTINENCE/	9510
2	STRESS INCONTINENCE/	4529
3	URGE INCONTINENCE/	1466
4	MIXED INCONTINENCE/	63
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9541
6	OVERACTIVE BLADDER/	438

7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1479
8	OAB.tw.	133
9	URINARY URGENCY/	410
10	URINARY FREQUENCY/	528
11	((urgency adj frequency) or (frequency adj urgency)).tw.	569
12	DETRUSOR DYSSYNERGIA/	1738
13	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1368
14	NOCTURIA/	970
15	nocturia.tw.	737
16	or/1-15	17608
17	LIFESTYLE/	18413
18	HEALTH BEHAVIOR/	8989
19	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	4786
20	BEHAVIOR MODIFICATION/	3730
21	DRINKING/	2966
22	DRINKING BEHAVIOR/	6641
23	CARBONATED BEVERAGES/	165
24	ALCOHOL CONSUMPTION/	25996
25	CAFFEINE/	17842
26	FLUID INTAKE/	6011
27	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	62308
28	DIET/	41935
29	FEEDING BEHAVIOR/	10914
30	FOOD INTAKE/	28766
31	(weigh$ adj3 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	60943
32	DEFECATION HABIT/	29
33	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	920
34	SMOKING CESSATION/	10734
35	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	8834
36	EXERCISE/	56166
37	PHYSICAL ACTIVITY/	21019
38	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	23173

39	or/17-38	319104
40	and/16,39	896
41	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12771
42	40 not 41	896
43	FEMALES/ or WOMEN/ or (female$ or wom?n).mp.	1957742
44	and/42-43	558

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to March Week 3 2005

URINC_lifestyle_changes_without_filter_cinahl_290305

#	Search History	Results
1	URINARY INCONTINENCE/	2795
2	STRESS INCONTINENCE/	491
3	URGE INCONTINENCE/	159
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1798
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	203
6	OAB.tw.	21
7	((urgency adj frequency) or (frequency adj urgency)).tw.	51
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	39
9	nocturia.tw.	69
10	or/1-9	3616
11	LIFE STYLE CHANGES/	794
12	HEALTH BEHAVIOR/	6695
13	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	1439
14	BEHAVIOR MODIFICATION/	487
15	DRINKING BEHAVIOR/	213
16	CARBONATED BEVERAGES/	176
17	ALCOHOL DRINKING/	3348
18	CAFFEINE/	637
19	FLUID INTAKE/	208
20	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	3812

21	DIET/	7474
22	EATING BEHAVIOR/	1638
23	FOOD HABITS/	1237
24	FOOD INTAKE/	981
25	WEIGHT GAIN/	1214
26	WEIGHT LOSS/	2273
27	(weigh$ adj5 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	5479
28	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	61
29	SMOKING CESSATION/	2702
30	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	2747
31	EXERCISE/	7428
32	PHYSICAL ACTIVITY/	3766
33	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	5686
34	or/11-33	42886
35	and/10,34	153
36	ANIMALS/ or ANIMAL STUDIES/	3264
37	35 not 36	153

British Nursing Index
1985 to March 2005

URINC_lifestyle_changes_without_filter_bni_290305

#	Search History	Results
1	INCONTINENCE/	1654
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	20
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
7	nocturia.tw.	7
8	or/1-7	1694
9	LIFE STYLE/	323

10	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	68
11	"ALCOHOL AND ALCOHOLISM"/	1166
12	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	234
13	"NUTRITION AND DIET"/	2689
14	(weigh$ adj5 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	231
15	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	4
16	SMOKING/	1690
17	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	453
18	EXERCISE/	368
19	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	248
20	or/9-19	6617
21	and/8,20	15

PsycINFO

1967 to March Week 3 2005

URINC_lifestyle_changes_without_filter_psycinfo_290305

#	**Search History**	**Results**
1	URINARY INCONTINENCE/	1061
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	39
4	OAB.tw.	7
5	((urgency adj frequency) or (frequency adj urgency)).tw.	12
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8
7	nocturia.tw.	22
8	or/1-7	1258
9	LIFESTYLE CHANGES/	347
10	HEALTH BEHAVIOR/	7221
11	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	1496
12	BEHAVIOR MODIFICATION/	8494
13	DRINKING BEHAVIOR/	382
14	"BEVERAGES (NONALCOHOLIC)"/	270

15	ALCOHOL DRINKING PATTERNS/	10332
16	SOCIAL DRINKING/	609
17	CAFFEINE/	1568
18	FLUID INTAKE/	1109
19	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	16502
20	DIETARY RESTRAINT/	601
21	EATING BEHAVIOR/	1291
22	FOOD INTAKE/	7722
23	WEIGHT CONTROL/	1898
24	(weigh$ adj3 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	9731
25	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	25
26	SMOKING CESSATION/	3358
27	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	4395
28	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	6060
29	or/9-28	64532
30	and/8,29	208
31	limit 30 to human	207

Ovid MEDLINE

1966 to June Week 1 2005

URINC_lifestyle_changes_economic_specific_medline_150605

#	**Search History**	**Results**
1	ECONOMICS/	23946
2	"COSTS AND COST ANALYSIS"/	33281
3	COST ALLOCATION/	1708
4	COST-BENEFIT ANALYSIS/	35120
5	COST CONTROL/	16277
6	COST SAVINGS/	5146
7	COST OF ILLNESS/	6899
8	COST SHARING/	1035
9	HEALTH CARE COSTS/	12621

10	DIRECT SERVICE COSTS/	710
11	DRUG COSTS/	6607
12	EMPLOYER HEALTH COSTS/	867
13	HOSPITAL COSTS/	4612
14	HEALTH RESOURCES/	5290
15	"HEALTH SERVICES NEEDS AND DEMAND"/	20608
16	HEALTH PRIORITIES/	5488
17	HEALTH EXPENDITURES/	8440
18	CAPITAL EXPENDITURES/	1735
19	FINANCIAL MANAGEMENT/	13773
20	FINANCIAL MANAGEMENT, HOSPITAL/	6178
21	QUALITY-ADJUSTED LIFE YEARS/	2165
22	"DEDUCTIBLES AND COINSURANCE"/	1011
23	MEDICAL SAVINGS ACCOUNTS/	179
24	ECONOMICS, HOSPITAL/	7612
25	ECONOMICS, MEDICAL/	5206
26	ECONOMICS, NURSING/	3664
27	ECONOMICS, PHARMACEUTICAL/	1465
28	MODELS, ECONOMIC/	2205
29	MODELS, ECONOMETRIC/	1992
30	RESOURCE ALLOCATION/	5109
31	HEALTH CARE RATIONING/	8057
32	"FEES AND CHARGES"/	6652
33	BUDGETS/	6725
34	VALUE OF LIFE/	4434
35	(financ$ or fiscal$ or funding).ti.	10868
36	(QALY$ or life?year$).ti.	161
37	(econom$ or cost$).ti.	62767
38	pharmacoeconomic$.ti.	865
39	or/1-38	231992
40	URINARY INCONTINENCE/	11761
41	URINARY INCONTINENCE, STRESS/	5326
42	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11797

43	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1584
44	OAB.tw.	125
45	((urgency adj frequency) or (frequency adj urgency)).tw.	628
46	((urinary adj frequency) or (urinary adj urgency)).tw.	765
47	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1393
48	nocturia.tw.	807
49	or/40-48	20942
50	LIFESTYLE/	21452
51	HEALTH BEHAVIOR/	12324
52	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	5323
53	DRINKING/	9149
54	DRINKING BEHAVIOR/	4648
55	CARBONATED BEVERAGES/	754
56	ALCOHOL DRINKING/	30365
57	CAFFEINE/	14399
58	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	66555
59	DIET/	65428
60	WEIGHT GAIN/	11446
61	WEIGHT LOSS/	9601
62	FOOD HABITS/	10470
63	(weigh$ adj5 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	84763
64	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	1015
65	SMOKING CESSATION/	8074
66	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	10475
67	EXERCISE/	31749
68	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	26644
69	or/50-68	336010
70	and/39,49,69	11
71	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2868435
72	70 not 71	11
73	FEMALE/ or WOMEN/ or (female$ or wom?n$).mp.	4272488
74	and/72-73	9

EMBASE

1980 to 2005 Week 24

URINC_lifestyle_changes_economic_specific_embase_150605

#	Search History	Results
1	ECONOMICS/	4630
2	HEALTH ECONOMICS/	7512
3	ECONOMIC EVALUATION/	2508
4	COST BENEFIT ANALYSIS/	20803
5	COST CONTROL/	12694
6	COST EFFECTIVENESS ANALYSIS/	38336
7	COST MINIMIZATION ANALYSIS/	816
8	COST OF ILLNESS/	2521
9	COST UTILITY ANALYSIS/	1331
10	COST/	17506
11	HEALTH CARE COST/	41732
12	DRUG COST/	23700
13	HEALTH CARE FINANCING/	7551
14	HOSPITAL COST/	4583
15	SOCIOECONOMICS/	19958
16	ECONOMIC ASPECT/	62992
17	QUALITY-ADJUSTED LIFE YEARS/	1948
18	FINANCIAL MANAGEMENT/	15427
19	PHARMACOECONOMICS/	834
20	RESOURCE ALLOCATION/	5277
21	(financ$ or fiscal$ or funding).ti.	4974
22	(QALY$ or life?year$).ti.	111
23	(econom$ or cost$).ti.	40912
24	pharmacoeconomic$.ti.	1049
25	or/1-24	224003
26	URINE INCONTINENCE/	9745
27	STRESS INCONTINENCE/	4654

28	URGE INCONTINENCE/	1502
29	MIXED INCONTINENCE/	66
30	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9741
31	OVERACTIVE BLADDER/	491
32	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1532
33	OAB.tw.	146
34	URINARY URGENCY/	461
35	URINARY FREQUENCY/	586
36	((urgency adj frequency) or (frequency adj urgency)).tw.	579
37	((urinary adj frequency) or (urinary adj urgency)).tw.	702
38	DETRUSOR DYSSYNERGIA/	1754
39	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1387
40	NOCTURIA/	1004
41	nocturia.tw.	758
42	or/26-41	18302
43	LIFESTYLE/	19164
44	HEALTH BEHAVIOR/	9409
45	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	4964
46	BEHAVIOR MODIFICATION/	3859
47	DRINKING/	3003
48	DRINKING BEHAVIOR/	6840
49	CARBONATED BEVERAGES/	187
50	ALCOHOL CONSUMPTION/	26669
51	CAFFEINE/	18065
52	FLUID INTAKE/	6164
53	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	63225
54	DIET/	42446
55	FEEDING BEHAVIOR/	11159
56	FOOD INTAKE/	29482
57	(weigh$ adj3 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	61975
58	DEFECATION HABIT/	29
59	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	942

60	SMOKING CESSATION/	11055
61	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	9031
62	EXERCISE/	57171
63	PHYSICAL ACTIVITY/	21770
64	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	23707
65	or/43-64	325043
66	and/25,42,65	67
67	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12786
68	66 not 67	67

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to June Week 2 2005

URINC_lifestyle_changes_economic_specific_cinahl_150605

#	**Search History**	**Results**
1	ECONOMICS/	535
2	"COSTS AND COST ANALYSIS"/	3196
3	COST BENEFIT ANALYSIS/	4209
4	COST CONTROL/	2068
5	COST SAVINGS/	2679
6	COST OF ILLNESS/	926
7	HEALTH CARE COSTS/	5188
8	ECONOMIC ASPECTS OF ILLNESS/	926
9	ECONOMICS, PHARMACEUTICAL/	693
10	HEALTH CARE FINANCING/	2415
11	FINANCIAL MANAGEMENT/	2675
12	HOSPITAL COST/	779
13	SOCIOECONOMIC FACTORS/	9334
14	HEALTH RESOURCE ALLOCATION/	2262
15	(financ$ or fiscal$ or funding).ti.	3629
16	(QALY$ or life?year$).ti.	7
17	(econom$ or cost$).ti.	11053

18	pharmacoeconomic$.ti.	92
19	or/1-18	39760
20	URINARY INCONTINENCE/	2874
21	STRESS INCONTINENCE/	524
22	URGE INCONTINENCE/	173
23	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1871
24	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	223
25	OAB.tw.	25
26	((urgency adj frequency) or (frequency adj urgency)).tw.	57
27	((urinary adj frequency) or (urinary adj urgency)).tw.	83
28	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	40
29	nocturia.tw.	74
30	or/20-29	3782
31	LIFE STYLE CHANGES/	878
32	HEALTH BEHAVIOR/	7041
33	(lifestyle adj3 (interven$ or factor$ or change$ or alter$ or moderat$)).tw.	1521
34	BEHAVIOR MODIFICATION/	506
35	DRINKING BEHAVIOR/	217
36	CARBONATED BEVERAGES/	195
37	ALCOHOL DRINKING/	3484
38	CAFFEINE/	669
39	FLUID INTAKE/	229
40	((consum$ or intake$ or reduc$ or manag$ or time or timing or volume$) adj3 (water or alcohol$ or drink$ or fluid$ or liquid$ or beverage$ or coffee or caffeine or tea)).tw.	4026
41	DIET/	7827
42	EATING BEHAVIOR/	1686
43	FOOD HABITS/	1293
44	FOOD INTAKE/	1030
45	WEIGHT GAIN/	1281
46	WEIGHT LOSS/	2417
47	(weigh$ adj5 (los$ or reduc$ or gain$ or control$ or maintain$ or manag$)).tw.	5805
48	(bowel adj (habit$ or empty$ or regular$ or frequen$)).tw.	64
49	SMOKING CESSATION/	2840

50	((ceas$ or cess$ or stop$ or quit$ or abstain$) adj3 (smok$ or cigarette$ or tobacco)).tw.	2871
51	EXERCISE/	7702
52	PHYSICAL ACTIVITY/	4070
53	((appropriate or regular or physical$) adj1 (activ$ or exercis$)).tw.	6051
54	or/31-53	45009
55	and/19,30,54	7
56	ANIMALS/ or ANIMAL STUDIES/	3391
57	55 not 56	7

Ovid MEDLINE
1966 to February Week 2 2005

URINC_physical_behavioural_therapies_RCT_SR_medline_160205

#	**Search History**	**Results**
1	randomized controlled trial.pt.	195773
2	controlled clinical trial.pt.	67320
3	DOUBLE BLIND METHOD/	79747
4	SINGLE BLIND METHOD/	8569
5	RANDOM ALLOCATION/	52042
6	RANDOMIZED CONTROLLED TRIALS/	35292
7	or/1-6	332456
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	77112
9	clinical trial.pt.	395456
10	exp CLINICAL TRIALS/	160751
11	(clinic$ adj5 trial$).tw,sh.	89951
12	PLACEBOS/	23321
13	placebo$.tw,sh.	97895
14	random$.tw,sh.	343102
15	or/8-14	686177
16	or/7,15	689833
17	META ANALYSIS/	5731
18	meta analysis.pt.	9942

19	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	15346
20	(systematic$ adj5 (review$ or overview$)).tw,sh.	8032
21	(methodologic$ adj5 (review$ or overview$)).tw,sh.	1882
22	or/17-21	25806
23	review$.pt.	1072706
24	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	16682
25	((hand or manual$) adj2 search$).tw.	2018
26	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	2736
27	(pooling or pooled or mantel haenszel).tw,sh.	20882
28	(peto or dersimonian or der simonian or fixed effect).tw,sh.	749
29	or/24-28	38897
30	23 and 29	13503
31	or/22,30	35247
32	letter.pt.	519092
33	case report.tw.	102640
34	comment.pt.	263719
35	editorial.pt.	168733
36	historical article.pt.	214315
37	review of reported cases.pt.	51146
38	review, multicase.pt.	8689
39	ANIMAL/ not (HUMAN/ and ANIMAL/)	2820534
40	or/32-39	3863539
41	16 not 40	605968
42	31 not 40	32042
43	or/41-42	622487
44	URINARY INCONTINENCE/	11517
45	URINARY INCONTINENCE, STRESS/	5214
46	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11511
47	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1513
48	OAB.tw.	110
49	((urgency adj frequency) or (frequency adj urgency)).tw.	599
50	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1362

51	nocturia.tw.	772
52	or/44-51	20112
53	EXERCISE THERAPY/	12887
54	PHYSICAL THERAPY TECHNIQUES/	17047
55	((physical$ or exercis$) adj therap$).tw.	6958
56	MUSCLE CONTRACTION/	69059
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	2663
58	(pfmt or pfme).tw.	22
59	(vagina$ adj (cone$ or weight$ or ball)).tw.	57
60	geisha ball$.tw.	1
61	PELVIC FLOOR/ and (rh or th).fs.	412
62	"BIOFEEDBACK (PSYCHOLOGY)"/	4365
63	(biofeedback or bio-feedback).tw.	3258
64	perineometer$.tw.	25
65	ELECTROMYOGRAPHY/	45610
66	PALPATION/	5317
67	digital palpation.tw.	128
68	MANOMETRY/	12933
69	ELECTRIC STIMULATION THERAPY/	10269
70	(electric$ adj stimulat$).tw.	29921
71	(electrostimulat$ or electro-stimulat$).tw.	2213
72	(electrotherapy or electro-therapy).tw.	555
73	(SANS or Stoller).tw.	593
74	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	2088
75	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	277
76	neuromodulation.tw.	868
77	((trophic$ or eutrophic$) adj3 stimulation).tw.	114
78	interferential.tw.	114
79	MAGNETICS/tu [Therapeutic Use]	685
80	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	4861
81	PELVIC FLOOR/ir [Innervation]	107
82	ABDOMINAL MUSCLES/	7871

83	transversus abdominis.tw.	205
84	YOGA/	599
85	yoga.tw.	452
86	pilates.tw.	10
87	BREATHING EXERCISES/	1669
88	(breath$ adj5 (exercis$ or technique$)).tw.	3155
89	BEHAVIOR THERAPY/	17122
90	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	24419
91	BLADDER/ and (rh or th).fs.	2235
92	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	390
93	TOILET TRAINING/	575
94	(schedule$ adj3 toilet$).tw.	28
95	(prompt$ adj3 void$).tw.	49
96	two hourly toileting.tw.	2
97	((toilet$ or void$) adj3 regimen$).tw.	28
98	(habit adj3 (train$ or retrain$)).tw.	57
99	(timed adj3 void$).tw.	43
100	or/53-99	248084
101	and/43,52,100	469
102	HUMANS/ not ANIMALS/	7807541
103	FEMALE/ or WOMEN/ or (female$ or wom?n).mp.	4192465
104	and/101-103	406

EMBASE

1980 to 2005 Week 07

URINC_physical_behavioural_therapies_RCT_SR_embase_160205

#	**Search History**	**Results**
1	CLINICAL TRIALS/	324410
2	(clinic$ adj5 trial$).ti,ab,sh.	84967
3	SINGLE BLIND PROCEDURE/	5128
4	DOUBLE BLIND PROCEDURE/	54509

5	RANDOM ALLOCATION/	13778
6	CROSSOVER PROCEDURE/	15813
7	PLACEBO/	74838
8	placebo$.ti,ab,sh.	119122
9	random$.ti,ab,sh.	293983
10	RANDOMIZED CONTROLLED TRIALS/	91954
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	73905
12	randomi?ed control$ trial$.tw.	16515
13	or/1-12	599679
14	META ANALYSIS/	20397
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	24803
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	8699
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	1524
18	or/14-17	32178
19	review.pt.	551231
20	(medline or medlars or embase).ab.	11684
21	(scisearch or science citation index).ab.	367
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	2648
23	((hand or manual$) adj2 search$).tw.	1407
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	2111
25	(pooling or pooled or mantel haenszel).tw.	17273
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	444
27	or/20-26	31192
28	19 and 27	7832
29	or/18,28	37371
30	case study.tw,sh.	15816
31	abstract report.tw,sh.	71152
32	note.tw,sh.	186701
33	short survey.tw,sh.	361637
34	letter.tw,sh.	294429
35	case report.tw,sh.	831252
36	editorial.tw,sh.	184023

37	(ANIMAL/ or NONHUMAN/) not (HUMAN/ or ((ANIMAL/ or NONHUMAN/) and HUMAN/))	2190500
38	or/30-37	3957395
39	13 not 38	493485
40	29 not 38	32158
41	or/39-40	504858
42	URINE INCONTINENCE/	9395
43	STRESS INCONTINENCE/	4476
44	URGE INCONTINENCE/	1435
45	MIXED INCONTINENCE/	60
46	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9449
47	OVERACTIVE BLADDER/	404
48	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1446
49	OAB.tw.	124
50	URINARY URGENCY/	373
51	URINARY FREQUENCY/	501
52	((urgency adj frequency) or (frequency adj urgency)).tw.	554
53	DETRUSOR DYSSYNERGIA/	1717
54	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1355
55	NOCTURIA/	955
56	nocturia.tw.	727
57	or/42-56	17378
58	KINESIOTHERAPY/	4243
59	PHYSIOTHERAPY/	14218
60	((physical$ or exercis$) adj therap$).tw.	6013
61	MUSCLE CONTRACTION/	16418
62	MUSCLE EXERCISE/	1952
63	MUSCLE STRENGTH/	11693
64	MUSCLE TRAINING/	1422
65	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	2377
66	(pfmt or pfme).tw.	22
67	(vagina$ adj (cone$ or weight$ or ball)).tw.	54
68	geisha ball$.tw.	1

69	PELVIS FLOOR/ and (rh or th).fs.	584
70	FEEDBACK SYSTEM/	14368
71	(biofeedback or bio-feedback).tw.	2806
72	perineometer$.tw.	19
73	ELECTROMYOGRAPHY/	19074
74	PALPATION/	1808
75	digital palpation.tw.	97
76	MANOMETRY/	4291
77	ELECTROSTIMULATION THERAPY/	2129
78	(electric$ adj stimulat$).tw.	24331
79	(electrostimulat$ or electro-stimulat$).tw.	1183
80	(electrotherapy or electro-therapy).tw.	420
81	(SANS or Stoller).tw.	702
82	TRANSCUTANEOUS NERVE STIMULATION/	1924
83	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	279
84	neuromodulation.tw.	931
85	((trophic$ or eutrophic$) adj3 stimulation).tw.	104
86	interferential.tw.	133
87	MAGNETIC STIMULATION/	586
88	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	4738
89	ABDOMINAL WALL MUSCULATURE/	1340
90	transversus abdominis.tw.	187
91	YOGA/	472
92	yoga.tw.	309
93	pilates.tw.	17
94	BREATHING EXERCISE/	771
95	(breath$ adj5 (exercis$ or technique$)).tw.	2861
96	BEHAVIOR THERAPY/	13746
97	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	23365
98	BLADDER/ and (rh or th).fs.	220
99	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	279
100	(schedule$ adj3 toilet$).tw.	20

101	(prompt$ adj3 void$).tw.	33
102	two hourly toileting.tw.	1
103	((toilet$ or void$) adj3 regimen$).tw.	24
104	(habit adj3 (train$ or retrain$)).tw.	53
105	(timed adj3 void$).tw.	39
106	or/58-105	149954
107	and/41,57,106	441
108	HUMAN/ not ANIMAL/	4800223
109	FEMALES/ or WOMEN/ or (female$ or wom?n).mp.	1939587
110	and/107-109	308

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to February Week 2 2005

URINC_physical_behavioural_therapies_RCT_SR_cinahl_160205

#	**Search History**	**Results**
1	exp CLINICAL TRIALS/	28624
2	(clinic$ adj5 trial$).tw,sh.	7407
3	clinical trial.pt.	12721
4	SINGLE-BLIND STUDIES/	1424
5	DOUBLE-BLIND STUDIES/	5821
6	TRIPLE-BLIND STUDIES/	25
7	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	4046
8	RANDOM ASSIGNMENT/	8996
9	random$.tw.	27840
10	RANDOMIZED CONTROLLED TRIALS/	21605
11	randomi?ed control$ trial$.tw.	5379
12	PLACEBOS/	2566
13	placebo$.tw.	5590
14	or/1-13	49121
15	META ANALYSIS/	3830
16	((meta adj analy$) or metaanalys$ or meta-analy$).tw.	2263

17	SYSTEMATIC REVIEW/	1783
18	systematic review$.pt.	4802
19	(systematic$ adj5 (review$ or overview$)).tw.	4457
20	LITERATURE REVIEW/	1905
21	or/15-20	10695
22	("review" or "review studies" or "review academic" or "review tutorial").ti,ab,sh,pt.	64406
23	(medline or medlars or embase or cochrane or scisearch or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation").tw.	5128
24	((hand or manual$) adj2 search$).tw.	637
25	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	901
26	(pooling or pooled or mantel haenszel).tw.	1234
27	(peto or dersimonian or "der simonian" or fixed effect).tw.	231
28	or/23-27	6521
29	22 and 28	4445
30	or/21,29	11818
31	letter.pt,sh.	26182
32	commentary.pt,sh.	39922
33	editorial.pt,sh.	54636
34	manuscripts.pt,sh.	386
35	pamphlets.pt,sh.	869
36	reports.pt,sh.	1507
37	newsletters.pt,sh.	283
38	newspapers.pt,sh.	312
39	ANIMALS/ or ANIMAL STUDIES/	3233
40	or/31-39	108534
41	14 not 40	42782
42	30 not 40	10059
43	or/41-42	48557
44	URINARY INCONTINENCE/	2766
45	STRESS INCONTINENCE/	483
46	URGE INCONTINENCE/	156
47	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1784
48	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	204

49	OAB.tw.	19
50	((urgency adj frequency) or (frequency adj urgency)).tw.	51
51	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	40
52	nocturia.tw.	68
53	or/44-52	3584
54	THERAPEUTIC EXERCISE/	4479
55	PHYSIOTHERAPY/	8786
56	((physical$ or exercis$) adj therap$).tw.	4783
57	PELVIC FLOOR MUSCLES/	274
58	MUSCLE CONTRACTION/	1330
59	MUSCLE STRENGTH/	2408
60	MUSCLE STRENGTHENING/	2953
61	KEGEL EXERCISES/	428
62	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	436
63	(pfmt or pfme).tw.	8
64	(vagina$ adj (cone$ or weight$ or ball)).tw.	22
65	geisha ball$.tw.	0
66	BIOFEEDBACK/	829
67	(biofeedback or bio-feedback).tw.	529
68	perineometer$.tw.	6
69	ELECTROMYOGRAPHY/	2685
70	PALPATION/	461
71	digital palpation.tw.	10
72	MANOMETRY/	180
73	ELECTRIC STIMULATION/	2084
74	(electric$ adj stimulat$).tw.	1028
75	(electrostimulat$ or electro-stimulat$).tw.	58
76	(electrotherapy or electro-therapy).tw.	149
77	(SANS or Stoller).tw.	78
78	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	274
79	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	77
80	neuromodulation.tw.	24

81	((trophic$ or eutrophic$) adj3 stimulation).tw.	3
82	interferential.tw.	76
83	MAGNET THERAPY/	221
84	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	248
85	ABDOMINAL MUSCLES/	311
86	transversus abdominis.tw.	28
87	YOGA/	339
88	yoga.tw.	261
89	PILATES/	65
90	pilates.tw.	57
91	BREATHING EXERCISES/	376
92	(breath$ adj5 (exercis$ or technique$)).tw.	368
93	BEHAVIOR THERAPY/	1681
94	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	4126
95	BLADDER/ and (rh or th).fs.	92
96	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	92
97	TOILETING/	160
98	"BOWEL AND BLADDER MANAGEMENT"/	783
99	(schedule$ adj3 toilet$).tw.	17
100	(prompt$ adj3 void$).tw.	30
101	two hourly toileting.tw.	1
102	((toilet$ or void$) adj3 regimen$).tw.	6
103	(habit adj3 (train$ or retrain$)).tw.	16
104	(timed adj3 void$).tw.	7
105	or/54-104	32731
106	and/43,53,105	126
107	ANIMALS/ or ANIMAL STUDIES/	3233
108	106 not 107	126

British Nursing Index
1985 to February 2005

URINC_physical_behavioural_therapies_RCT_SR_bni_160205

#	Search History	Results
1	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw.	184
2	((systematic$ or methodologic$) adj3 (review$ or overview$)).tw.	475
3	or/1-2	631
4	exp CLINICAL TRIALS/	4494
5	(clinic$ adj3 trial$).tw.	326
6	((single or double or triple or treble) adj3 (blind$ or mask$)).tw.	72
7	(random$ adj3 (allocat$ or method$ or trial$)).tw.	912
8	placebo$.tw.	113
9	or/4-8	5593
10	or/3,9	6099
11	(medline or medlars or embase or cinahl or cochrane or psyc?info or psyc?lit or "web of science" or "science citation" or scisearch).tw.	80
12	((hand or manual$) adj3 search$).tw.	0
13	(der?simonian or fixed effect or mantel haenszel or peto or pooled or pooling).tw.	27
14	or/11-13	107
15	or/10,14	6176
16	INCONTINENCE/	1650
17	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	433
18	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	20
19	OAB.tw.	0
20	((urgency adj frequency) or (frequency adj urgency)).tw.	1
21	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
22	nocturia.tw.	7
23	or/16-22	1690
24	PHYSICAL FITNESS/	647
25	PHYSIOTHERAPY/	409
26	((physical$ or exercis$) adj therap$).tw.	31
27	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	86

28	(pfmt or pfme).tw.	0
29	(vagina$ adj (cone$ or weight$ or ball)).tw.	7
30	geisha ball$.tw.	0
31	BIOFEEDBACK/	35
32	(biofeedback or bio-feedback).tw.	43
33	perineometer$.tw.	3
34	digital palpation.tw.	0
35	(electric$ adj stimulat$).tw.	23
36	(electrostimulat$ or electro-stimulat$).tw.	4
37	(electrotherapy or electro-therapy).tw.	15
38	(SANS or Stoller).tw.	10
39	TENS.tw.	33
40	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	1
41	neuromodulation.tw.	1
42	((trophic$ or eutrophic$) adj3 stimulation).tw.	1
43	interferential.tw.	4
44	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	13
45	transversus abdominis.tw.	0
46	yoga.tw.	26
47	pilates.tw.	3
48	(breath$ adj5 (exercis$ or technique$)).tw.	14
49	BEHAVIOUR THERAPY/	150
50	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	415
51	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	21
52	(schedule$ adj3 toilet$).tw.	0
53	(prompt$ adj3 void$).tw.	3
54	two hourly toileting.tw.	0
55	((toilet$ or void$) adj3 regimen$).tw.	0
56	(habit adj3 (train$ or retrain$)).tw.	1
57	(timed adj3 void$).tw.	0
58	or/24-57	1757
59	and/15,23,58	4

PsycINFO 1967 to February Week 1 2005

URINC_physical_behavioural_therapies_RCT_SR_psycinfo_160205

#	Search History	Results
1	LITERATURE REVIEW/	22054
2	BETWEEN GROUPS DESIGN/	81
3	EXPERIMENTAL DESIGN/	5625
4	RANDOM SAMPLING/	265
5	EXPERIMENT CONTROLS/	334
6	META-ANALYSIS/	2564
7	random$.tw.	50468
8	(meta-analys#s or metaanalys#s).ti.	2593
9	(systematic$ adj (review$ or overview$)).ti.	503
10	((single or double or triple) adj (blind$ or mask$)).ti.	2306
11	rct.tw.	182
12	or/1-11	82350
13	report.pt,sh.	6406
14	letter.pt,sh.	0
15	case report.pt,sh.	21985
16	comment.pt,sh.	0
17	editorial.pt,sh.	0
18	historical article.pt,sh.	0
19	review of reported cases.pt,sh.	0
20	review, multicase.pt,sh.	0
21	or/13-20	28371
22	12 not 21	81790
23	URINARY INCONTINENCE/	1049
24	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	428
25	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	37
26	OAB.tw.	7
27	((urgency adj frequency) or (frequency adj urgency)).tw.	12
28	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8

29	nocturia.tw.	21
30	or/23-29	1241
31	PHYSICAL THERAPY/	657
32	EXERCISE/	5908
33	((physical$ or exercis$) adj therap$).tw.	1005
34	MUSCLE CONTRACTIONS/	718
35	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	77
36	(pfmt or pfme).tw.	3
37	(vagina$ adj (cone$ or weight$ or ball)).tw.	0
38	geisha ball$.tw.	0
39	BIOFEEDBACK/	1507
40	BIOFEEDBACK TRAINING/	2367
41	(biofeedback or bio-feedback).tw.	3957
42	perineometer$.tw.	4
43	ELECTROMYOGRAPHY/	2483
44	digital palpation.tw.	1
45	ELECTRICAL STIMULATION/	2206
46	(electric$ adj stimulat$).tw.	4322
47	(electrostimulat$ or electro-stimulat$).tw.	147
48	(electrotherapy or electro-therapy).tw.	61
49	(SANS or Stoller).tw.	304
50	TENS.tw.	237
51	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	6
52	neuromodulation.tw.	160
53	((trophic$ or eutrophic$) adj3 stimulation).tw.	3
54	interferential.tw.	10
55	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	1099
56	transversus abdominis.tw.	0
57	YOGA/	355
58	yoga.tw.	577
59	pilates.tw.	1
60	(breath$ adj5 (exercis$ or technique$)).tw.	370

61	BEHAVIOR THERAPY/	9715
62	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	46377
63	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	50
64	TOILET TRAINING/	147
65	(schedule$ adj3 toilet$).tw.	16
66	(prompt$ adj3 void$).tw.	12
67	two hourly toileting.tw.	0
68	((toilet$ or void$) adj3 regimen$).tw.	1
69	(habit adj3 (train$ or retrain$)).tw.	81
70	(timed adj3 void$).tw.	2
71	or/31-70	69622
72	and/22,30,71	40
73	limit 72 to human	40

Ovid MEDLINE

1966 to March Week 2 2005

URINC_TENS_medline_210305

#	Search History	Results
1	URINARY INCONTINENCE/	11575
2	URINARY INCONTINENCE, STRESS/	5247
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11583
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1528
5	OAB.tw.	112
6	((urgency adj frequency) or (frequency adj urgency)).tw.	604
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1371
8	nocturia.tw.	778
9	or/1-8	20231
10	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	2094
11	(transcutaneous$ adj3 stimulat$).tw.	1616
12	TENS.tw.	2623

13	or/10-12	4908
14	and/9,13	53
15	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2833441
16	14 not 15	53
17	FEMALE/ or WOMEN/ or (female$ or wom?n).mp.	4210332
18	and/16-17	40

EMBASE
1980 to 2005 Week 12

URINC_TENS_embase_210305

#	Search History	Results
1	URINE INCONTINENCE/	9492
2	STRESS INCONTINENCE/	4523
3	URGE INCONTINENCE/	1459
4	MIXED INCONTINENCE/	63
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9529
6	OVERACTIVE BLADDER/	432
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1472
8	OAB.tw.	130
9	URINARY URGENCY/	406
10	URINARY FREQUENCY/	526
11	((urgency adj frequency) or (frequency adj urgency)).tw.	567
12	DETRUSOR DYSSYNERGIA/	1736
13	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1366
14	NOCTURIA/	967
15	nocturia.tw.	734
16	or/1-15	17575
17	TRANSCUTANEOUS NERVE STIMULATION/	1944
18	(transcutaneous$ adj3 stimulat$).tw.	1463
19	TENS.tw.	2636
20	or/17-19	4533

21	and/16,20	45
22	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12771
23	21 not 22	45
24	FEMALES/ or WOMEN/ or (female$ or wom?n).mp.	1954193
25	and/23-24	21

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to March Week 2 2005

URINC_TENS_cinahl_210305

#	Search History	Results
1	URINARY INCONTINENCE/	2791
2	STRESS INCONTINENCE/	490
3	URGE INCONTINENCE/	158
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1796
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	202
6	OAB.tw.	21
7	((urgency adj frequency) or (frequency adj urgency)).tw.	51
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	39
9	nocturia.tw.	69
10	or/1-9	3610
11	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	285
12	(transcutaneous$ adj3 stimulat$).tw.	318
13	TENS.tw.	286
14	or/11-13	570
15	and/10,14	4

British Nursing Index
1985 to March 2005

URINC_TENS_bni_210305

#	Search History	Results
1	INCONTINENCE/	1654
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	20
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
7	nocturia.tw.	7
8	or/1-7	1694
9	(transcutaneous$ adj3 stimulat$).tw.	47
10	TENS.tw.	33
11	or/9-10	59
12	and/8,11	0

PsycINFO
1967 to March Week 2 2005

URINC_TENS_psycinfo_210305

#	Search History	Results
1	URINARY INCONTINENCE/	1060
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	433
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	39
4	OAB.tw.	7
5	((urgency adj frequency) or (frequency adj urgency)).tw.	12
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8
7	nocturia.tw.	22
8	or/1-7	1255
9	(transcutaneous$ adj3 stimulat$).tw.	197

10	TENS.tw.	240
11	or/9-10	349
12	and/8,11	1
13	limit 12 to human	1

Ovid MEDLINE
1966 to April Week 4 2005

URINC_physical_behavioural_therapies_economic_specific_medline_110505

#	Search History	Results
1	ECONOMICS/	23807
2	"COSTS AND COST ANALYSIS"/	33169
3	COST ALLOCATION/	1704
4	COST-BENEFIT ANALYSIS/	34865
5	COST CONTROL/	16224
6	COST SAVINGS/	5098
7	COST OF ILLNESS/	6781
8	COST SHARING/	1020
9	HEALTH CARE COSTS/	12503
10	DIRECT SERVICE COSTS/	706
11	DRUG COSTS/	6539
12	EMPLOYER HEALTH COSTS/	864
13	HOSPITAL COSTS/	4587
14	HEALTH RESOURCES/	5266
15	"HEALTH SERVICES NEEDS AND DEMAND"/	20299
16	HEALTH PRIORITIES/	5446
17	HEALTH EXPENDITURES/	8385
18	CAPITAL EXPENDITURES/	1731
19	FINANCIAL MANAGEMENT/	13718
20	FINANCIAL MANAGEMENT, HOSPITAL/	6151
21	QUALITY-ADJUSTED LIFE YEARS/	2116
22	"DEDUCTIBLES AND COINSURANCE"/	1007

23	MEDICAL SAVINGS ACCOUNTS/	173
24	ECONOMICS, HOSPITAL/	7601
25	ECONOMICS, MEDICAL/	5198
26	ECONOMICS, NURSING/	3639
27	ECONOMICS, PHARMACEUTICAL/	1452
28	MODELS, ECONOMIC/	2183
29	MODELS, ECONOMETRIC/	1950
30	RESOURCE ALLOCATION/	5081
31	HEALTH CARE RATIONING/	8034
32	"FEES AND CHARGES"/	6615
33	BUDGETS/	6667
34	VALUE OF LIFE/	4412
35	(financ$ or fiscal$ or funding).ti.	10813
36	(QALY$ or life?year$).ti.	158
37	(econom$ or cost$).ti.	62246
38	pharmacoeconomic$.ti.	857
39	or/1-38	230379
40	URINARY INCONTINENCE/	11664
41	URINARY INCONTINENCE, STRESS/	5296
42	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11689
43	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1556
44	OAB.tw.	119
45	((urgency adj frequency) or (frequency adj urgency)).tw.	620
46	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1384
47	nocturia.tw.	792
48	or/40-47	20433
49	EXERCISE THERAPY/	13197
50	PHYSICAL THERAPY TECHNIQUES/	17249
51	((physical$ or exercis$) adj therap$).tw.	7140
52	MUSCLE CONTRACTION/	69660
53	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	2708
54	(pfmt or pfme).tw.	23

55	(vagina$ adj (cone$ or weight$ or ball)).tw.	57
56	geisha ball$.tw.	1
57	PELVIC FLOOR/ and (rh or th).fs.	424
58	"BIOFEEDBACK (PSYCHOLOGY)"/	4388
59	(biofeedback or bio-feedback).tw.	3278
60	perineometer$.tw.	25
61	ELECTROMYOGRAPHY/	46125
62	PALPATION/	5366
63	digital palpation.tw.	129
64	MANOMETRY/	13037
65	ELECTRIC STIMULATION THERAPY/	10473
66	(electric$ adj stimulat$).tw.	30248
67	(electrostimulat$ or electro-stimulat$).tw.	2244
68	(electrotherapy or electro-therapy).tw.	562
69	(SANS or Stoller).tw.	612
70	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	2110
71	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	283
72	neuromodulation.tw.	904
73	((trophic$ or eutrophic$) adj3 stimulation).tw.	114
74	interferential.tw.	117
75	MAGNETICS/tu [Therapeutic Use]	706
76	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	4989
77	PELVIC FLOOR/ir [Innervation]	109
78	ABDOMINAL MUSCLES/	7906
79	transversus abdominis.tw.	206
80	YOGA/	613
81	yoga.tw.	468
82	pilates.tw.	11
83	BREATHING EXERCISES/	1684
84	(breath$ adj5 (exercis$ or technique$)).tw.	3193
85	BEHAVIOR THERAPY/	17240
86	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	24840

87	BLADDER/ and (rh or th).fs.	2250
88	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	395
89	TOILET TRAINING/	577
90	(schedule$ adj3 toilet$).tw.	28
91	(prompt$ adj3 void$).tw.	49
92	two hourly toileting.tw.	2
93	((toilet$ or void$) adj3 regimen$).tw.	29
94	(habit adj3 (train$ or retrain$)).tw.	57
95	(timed adj3 void$).tw.	45
96	or/49-95	250990
97	and/39,48,96	44
98	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2854866
99	97 not 98	44

EMBASE
1980 to 2005 Week 19

URINC_physical_behavioural_therapies_economic_specific_embase_110505

#	Search History	Results
1	ECONOMICS/	4607
2	HEALTH ECONOMICS/	7430
3	ECONOMIC EVALUATION/	2468
4	COST BENEFIT ANALYSIS/	20498
5	COST CONTROL/	12557
6	COST EFFECTIVENESS ANALYSIS/	37805
7	COST MINIMIZATION ANALYSIS/	795
8	COST OF ILLNESS/	2462
9	COST UTILITY ANALYSIS/	1309
10	COST/	17399
11	HEALTH CARE COST/	41217
12	DRUG COST/	23405
13	HEALTH CARE FINANCING/	7484

14	HOSPITAL COST/	4537
15	SOCIOECONOMICS/	19645
16	ECONOMIC ASPECT/	62729
17	QUALITY-ADJUSTED LIFE YEARS/	1905
18	FINANCIAL MANAGEMENT/	15135
19	PHARMACOECONOMICS/	830
20	RESOURCE ALLOCATION/	5220
21	(financ$ or fiscal$ or funding).ti.	4933
22	(QALY$ or life?year$).ti.	111
23	(econom$ or cost$).ti.	40577
24	pharmacoeconomic$.ti.	1037
25	or/1-24	221652
26	URINE INCONTINENCE/	9622
27	STRESS INCONTINENCE/	4596
28	URGE INCONTINENCE/	1482
29	MIXED INCONTINENCE/	65
30	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9642
31	OVERACTIVE BLADDER/	464
32	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1505
33	OAB.tw.	139
34	URINARY URGENCY/	428
35	URINARY FREQUENCY/	555
36	((urgency adj frequency) or (frequency adj urgency)).tw.	570
37	DETRUSOR DYSSYNERGIA/	1744
38	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1376
39	NOCTURIA/	986
40	nocturia.tw.	746
41	or/26-40	17832
42	KINESIOTHERAPY/	4350
43	PHYSIOTHERAPY/	14618
44	((physical$ or exercis$) adj therap$).tw.	6116
45	MUSCLE CONTRACTION/	16748
46	MUSCLE EXERCISE/	1996

47	MUSCLE STRENGTH/	11979
48	MUSCLE TRAINING/	1475
49	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	2425
50	(pfmt or pfme).tw.	22
51	(vagina$ adj (cone$ or weight$ or ball)).tw.	55
52	geisha ball$.tw.	1
53	PELVIS FLOOR/ and (rh or th).fs.	602
54	FEEDBACK SYSTEM/	14731
55	(biofeedback or bio-feedback).tw.	2837
56	perineometer$.tw.	20
57	ELECTROMYOGRAPHY/	19376
58	PALPATION/	1893
59	digital palpation.tw.	98
60	MANOMETRY/	4345
61	ELECTROSTIMULATION THERAPY/	2185
62	(electric$ adj stimulat$).tw.	24539
63	(electrostimulat$ or electro-stimulat$).tw.	1205
64	(electrotherapy or electro-therapy).tw.	427
65	(SANS or Stoller).tw.	712
66	TRANSCUTANEOUS NERVE STIMULATION/	1976
67	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	280
68	neuromodulation.tw.	968
69	((trophic$ or eutrophic$) adj3 stimulation).tw.	104
70	interferential.tw.	137
71	MAGNETIC STIMULATION/	608
72	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	4866
73	ABDOMINAL WALL MUSCULATURE/	1370
74	transversus abdominis.tw.	189
75	YOGA/	497
76	yoga.tw.	319
77	pilates.tw.	19
78	BREATHING EXERCISE/	802

79	(breath$ adj5 (exercis$ or technique$)).tw.	2904
80	BEHAVIOR THERAPY/	14213
81	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	23854
82	BLADDER/ and (rh or th).fs.	224
83	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	287
84	(schedule$ adj3 toilet$).tw.	20
85	(prompt$ adj3 void$).tw.	34
86	two hourly toileting.tw.	1
87	((toilet$ or void$) adj3 regimen$).tw.	24
88	(habit adj3 (train$ or retrain$)).tw.	53
89	(timed adj3 void$).tw.	40
90	or/42-89	152976
91	and/25,41,90	94
92	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12781
93	91 not 92	94

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to May Week 1 2005

URINC_physical_behavioural_therapies_economic_specific_cinahl_110505

#	**Search History**	**Results**
1	ECONOMICS/	531
2	"COSTS AND COST ANALYSIS"/	3164
3	COST BENEFIT ANALYSIS/	4162
4	COST CONTROL/	2057
5	COST SAVINGS/	2654
6	COST OF ILLNESS/	912
7	HEALTH CARE COSTS/	5102
8	ECONOMIC ASPECTS OF ILLNESS/	912
9	ECONOMICS, PHARMACEUTICAL/	688
10	HEALTH CARE FINANCING/	2388
11	FINANCIAL MANAGEMENT/	2640

12	HOSPITAL COST/	773
13	SOCIOECONOMIC FACTORS/	9134
14	HEALTH RESOURCE ALLOCATION/	2245
15	(financ$ or fiscal$ or funding).ti.	3581
16	(QALY$ or life?year$).ti.	7
17	(econom$ or cost$).ti.	10931
18	pharmacoeconomic$.ti.	91
19	or/1-18	39237
20	URINARY INCONTINENCE/	2836
21	STRESS INCONTINENCE/	514
22	URGE INCONTINENCE/	168
23	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1846
24	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	218
25	OAB.tw.	25
26	((urgency adj frequency) or (frequency adj urgency)).tw.	55
27	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	40
28	nocturia.tw.	72
29	or/20-28	3698
30	THERAPEUTIC EXERCISE/	4701
31	PHYSIOTHERAPY/	8982
32	((physical$ or exercis$) adj therap$).tw.	4978
33	PELVIC FLOOR MUSCLES/	279
34	MUSCLE CONTRACTION/	1393
35	MUSCLE STRENGTH/	2595
36	MUSCLE STRENGTHENING/	3133
37	KEGEL EXERCISES/	434
38	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strength$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reeducat$ or re-educat$)).tw.	450
39	(pfmt or pfme).tw.	9
40	(vagina$ adj (cone$ or weight$ or ball)).tw.	21
41	geisha ball$.tw.	0
42	BIOFEEDBACK/	843
43	(biofeedback or bio-feedback).tw.	547

44	perineometer$.tw.	6
45	ELECTROMYOGRAPHY/	2810
46	PALPATION/	477
47	digital palpation.tw.	10
48	MANOMETRY/	183
49	ELECTRIC STIMULATION/	2131
50	(electric$ adj stimulat$).tw.	1057
51	(electrostimulat$ or electro-stimulat$).tw.	60
52	(electrotherapy or electro-therapy).tw.	151
53	(SANS or Stoller).tw.	82
54	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	297
55	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	80
56	neuromodulation.tw.	28
57	((trophic$ or eutrophic$) adj3 stimulation).tw.	3
58	interferential.tw.	78
59	MAGNET THERAPY/	234
60	((magnet$ or electromagnet$) adj3 (innervat$ or stimulat$ or therap$)).tw.	268
61	ABDOMINAL MUSCLES/	333
62	transversus abdominis.tw.	32
63	YOGA/	370
64	yoga.tw.	290
65	PILATES/	70
66	pilates.tw.	63
67	BREATHING EXERCISES/	396
68	(breath$ adj5 (exercis$ or technique$)).tw.	381
69	BEHAVIOR THERAPY/	1713
70	(behavio?r$ adj3 (interven$ or modif$ or therap$ or train$ or retrain$ or re-train$ or treatment$)).tw.	4350
71	BLADDER/ and (rh or th).fs.	95
72	(bladder adj3 (train$ or retrain$ or drill$ or educat$ or reeducat$ or re-educat$ or disciplin$)).tw.	94
73	TOILETING/	164
74	"BOWEL AND BLADDER MANAGEMENT"/	799
75	(schedule$ adj3 toilet$).tw.	17
76	(prompt$ adj3 void$).tw.	30

77	two hourly toileting.tw.	1
78	((toilet$ or void$) adj3 regimen$).tw.	6
79	(habit adj3 (train$ or retrain$)).tw.	16
80	(timed adj3 void$).tw.	7
81	or/30-80	34001
82	and/19,29,81	23
83	ANIMALS/ or ANIMAL STUDIES/	3344
84	82 not 83	23

Ovid MEDLINE

1966 to February Week 3 2006

URINC_nerve_stimulation_medline_230206

#	Search History	Results
1	URINARY INCONTINENCE/	12319
2	URINARY INCONTINENCE, STRESS/	5622
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12252
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1342
5	OAB.tw.	188
6	((urgency adj frequency) or (frequency adj urgency)).tw.	435
7	((urinary adj frequency) or (urinary adj urgency)).tw.	828
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1470
9	nocturia.tw.	893
10	or/1-9	21784
11	TIBIAL NERVE/	2827
12	(tibial adj3 nerve$ adj3 stimulat$).tw.	724
13	(SANS or Stoller).tw.	665
14	afferent nerve stimulat$.tw.	73
15	or/11-14	3916
16	and/10,15	28
17	limit 16 to humans	26

EMBASE

1980 to 2006 Week 07

URINC_nerve_stimulation_embase_230206

#	Search History	Results
1	URINE INCONTINENCE/	10507
2	STRESS INCONTINENCE/	5016
3	URGE INCONTINENCE/	1672
4	MIXED INCONTINENCE/	88
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	10387
6	OVERACTIVE BLADDER/	749
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1751
8	OAB.tw.	202
9	URINARY URGENCY/	650
10	URINARY FREQUENCY/	814
11	((urgency adj frequency) or (frequency adj urgency)).tw.	637
12	((urinary adj frequency) or (urinary adj urgency)).tw.	771
13	DETRUSOR DYSSYNERGIA/	1853
14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1493
15	NOCTURIA/	1129
16	nocturia.tw.	840
17	or/1-16	19865
18	POSTERIOR TIBIAL NERVE/	361
19	(tibial adj3 nerve$ adj3 stimulat$).tw.	849
20	(SANS or Stoller).tw.	769
21	afferent nerve stimulat$.tw.	70
22	or/18-21	1919
23	and/17,22	28
24	limit 23 to human	27

CINAHL - Cumulative Index to Nursing & Allied Health Literature

1982 to February Week 2 2006

URINC_nerve_stimulation_cinahl_230206

#	Search History	Results
1	URINARY INCONTINENCE/	3071
2	STRESS INCONTINENCE/	595
3	URGE INCONTINENCE/	210

4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	2039
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	294
6	OAB.tw.	47
7	((urgency adj frequency) or (frequency adj urgency)).tw.	64
8	((urinary adj frequency) or (urinary adj urgency)).tw.	93
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	49
10	nocturia.tw.	90
11	or/1-10	4113
12	TIBIAL NERVE/	79
13	(tibial adj3 nerve$ adj3 stimulat$).tw.	30
14	(SANS or Stoller).tw.	100
15	afferent nerve stimulat$.tw.	4
16	or/12-15	201
17	and/11,16	1

Ovid MEDLINE
1966 to April Week 2 2005

URINC_pharmacotherapies_RCT_SR_medline_250405

#	Search History	Results
1	randomized controlled trial.pt.	198570
2	controlled clinical trial.pt.	67854
3	DOUBLE BLIND METHOD/	80748
4	SINGLE BLIND METHOD/	8758
5	RANDOM ALLOCATION/	52720
6	RANDOMIZED CONTROLLED TRIALS/	36257
7	or/1-6	337506
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	78074
9	clinical trial.pt.	400686
10	exp CLINICAL TRIALS/	162978
11	(clinic$ adj5 trial$).tw,sh.	91790
12	PLACEBOS/	23504
13	placebo$.tw,sh.	99170
14	random$.tw,sh.	349683
15	or/8-14	697694

16	or/7,15	701409
17	META ANALYSIS/	5856
18	meta analysis.pt.	10324
19	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	15834
20	(systematic$ adj5 (review$ or overview$)).tw,sh.	8376
21	(methodologic$ adj5 (review$ or overview$)).tw,sh.	1934
22	or/17-21	26707
23	review$.pt.	1090200
24	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	17230
25	((hand or manual$) adj2 search$).tw.	2079
26	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	2837
27	(pooling or pooled or mantel haenszel).tw,sh.	21266
28	(peto or dersimonian or der simonian or fixed effect).tw,sh.	780
29	or/24-28	39862
30	23 and 29	14001
31	or/22,30	36376
32	letter.pt.	524197
33	case report.tw.	104500
34	comment.pt.	268267
35	editorial.pt.	171216
36	historical article.pt.	216537
37	review of reported cases.pt.	51667
38	review, multicase.pt.	8852
39	ANIMAL/ not (HUMAN/ and ANIMAL/)	2850059
40	or/32-39	3905554
41	16 not 40	615854
42	31 not 40	33088
43	or/41-42	632844
44	URINARY INCONTINENCE/	11650
45	URINARY INCONTINENCE, STRESS/	5278
46	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11665
47	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1549

48	OAB.tw.	118
49	((urgency adj frequency) or (frequency adj urgency)).tw.	616
50	((urinary adj frequency) or (urinary adj urgency)).tw.	755
51	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1383
52	nocturia.tw.	785
53	or/44-52	20721
54	duloxetine$.tw.	144
55	MUSCARINIC ANTAGONISTS/	3699
56	(antimuscarinic$ or (anti adj muscarinic$)).tw.	1102
57	CHOLINERGIC ANTAGONISTS/	1690
58	(anticholinergic$ or (anti adj cholinergic$)).tw.	6629
59	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	7386
60	darifenacin$.tw.	63
61	FLAVOXATE/	79
62	flavoxat$.tw.	112
63	oxybut?nin$.tw.	577
64	PROPANTHELINE/	505
65	propantheline$.tw.	306
66	propiverine$.tw.	91
67	solifenacin$.tw.	20
68	tolterodine$.tw.	217
69	trospium$.tw.	55
70	AMITRIPTYLINE/	4862
71	amitriptyline$.tw.	4044
72	AMOXAPINE/	299
73	amoxapine$.tw.	330
74	CLOMIPRAMINE/	2308
75	clomipramine$.tw.	2067
76	DOTHIEPIN/	246
77	(dosulepin$ or dothiepin$).tw.	248
78	DOXEPIN/	643
79	doxepin$.tw.	857
80	IMIPRAMINE/	7855

81	imipramine$.tw.	6856
82	LOFEPRAMINE/	99
83	lofepramine$.tw.	124
84	NORTRIPTYLINE/	1645
85	nortriptyline$.tw.	1524
86	TRIMIPRAMINE/	284
87	trimipramine$.tw.	323
88	DESMOPRESSIN/	2661
89	desmopressin$.tw.	1401
90	ddavp.tw.	1632
91	ESTROGENS/	32129
92	"ESTROGENS, CONJUGATED (USP)"/	2641
93	(estrogen$ or oestrogen$).tw.	74404
94	ESTRADIOL/	55393
95	ESTRADIOL CONGENERS/	1958
96	(estradiol$ or oestradiol$).tw.	52144
97	ETHINYL ESTRADIOL/	5855
98	ethinyl?estradiol$.tw.	1437
99	ESTRIOL/	4938
100	(estriol$ or oestriol$).tw.	3632
101	ESTRONE/	6770
102	(estrone$ or oestrone$).tw.	6157
103	ESTROGEN REPLACEMENT THERAPY/	9398
104	BENDROFLUMETHIAZIDE/	492
105	bendroflumethiazide$.tw.	170
106	CHLORTHALIDONE/	1012
107	chlortalidone$.tw.	44
108	CYCLOPENTHIAZIDE/	99
109	cyclopenthiazide$.tw.	97
110	INDAPAMIDE/	579
111	indapamide$.tw.	622
112	METOLAZONE/	143
113	metolazone$.tw.	203

114	XIPAMIDE/	86
115	xipamide$.tw.	101
116	FUROSEMIDE/	9564
117	(furosemide$ or frusemide$).tw.	9035
118	BUMETANIDE/	1426
119	bumetanide$.tw.	2114
120	torasemide$.tw.	184
121	ANTI-INFLAMMATORY AGENTS, NON-STEROIDAL/	30562
122	URINARY INCONTINENCE/dt [Drug Therapy]	829
123	URINARY INCONTINENCE, STRESS/dt [Drug Therapy]	261
124	or/54-123	225003
125	and/43,53,124	579
126	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2850059
127	125 not 126	579

EMBASE
1980 to 2005 Week 17

URINC_pharmacotherapies_RCT_SR_embase_250405

#	Search History	Results
1	CLINICAL TRIALS/	331688
2	(clinic$ adj5 trial$).ti,ab,sh.	86693
3	SINGLE BLIND PROCEDURE/	5244
4	DOUBLE BLIND PROCEDURE/	55298
5	RANDOM ALLOCATION/	14515
6	CROSSOVER PROCEDURE/	16053
7	PLACEBO/	76335
8	placebo$.ti,ab,sh.	120956
9	random$.ti,ab,sh.	299153
10	RANDOMIZED CONTROLLED TRIALS/	93975
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	74758
12	randomi?ed control$ trial$.tw.	17147

13	or/1-12	610374
14	META ANALYSIS/	21129
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	25675
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	9538
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	1558
18	or/14-17	33566
19	review.pt.	564861
20	(medline or medlars or embase).ab.	12076
21	(scisearch or science citation index).ab.	382
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	2811
23	((hand or manual$) adj2 search$).tw.	1459
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	2186
25	(pooling or pooled or mantel haenszel).tw.	17552
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	453
27	or/20-26	31948
28	19 and 27	8227
29	or/18,28	38942
30	case study.tw,sh.	16119
31	abstract report.tw,sh.	71155
32	note.tw,sh.	190690
33	short survey.tw,sh.	363723
34	letter.tw,sh.	298856
35	case report.tw,sh.	839341
36	editorial.tw,sh.	187245
37	(ANIMAL/ or NONHUMAN/) not (HUMAN/ or ((ANIMAL/ or NONHUMAN/) and HUMAN/))	2210590
38	or/30-37	3997587
39	13 not 38	502076
40	29 not 38	33554
41	or/39-40	513934
42	URINE INCONTINENCE/	9578
43	STRESS INCONTINENCE/	4574
44	URGE INCONTINENCE/	1474

45	MIXED INCONTINENCE/	64
46	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9605
47	OVERACTIVE BLADDER/	454
48	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1497
49	OAB.tw.	137
50	URINARY URGENCY/	422
51	URINARY FREQUENCY/	549
52	((urgency adj frequency) or (frequency adj urgency)).tw.	570
53	((urinary adj frequency) or (urinary adj urgency)).tw.	689
54	DETRUSOR DYSSYNERGIA/	1744
55	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1373
56	NOCTURIA/	983
57	nocturia.tw.	743
58	or/42-57	17985
59	DULOXETINE/	437
60	duloxetine$.tw.	190
61	MUSCARINIC RECEPTOR BLOCKING AGENT/	2716
62	(antimuscarinic$ or (anti adj muscarinic$)).tw.	1109
63	CHOLINERGIC RECEPTOR BLOCKING AGENT/	9777
64	(anticholinergic$ or (anti adj cholinergic$)).tw.	6027
65	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	6967
66	DARIFENACIN/	191
67	darifenacin$.tw.	75
68	FLAVOXATE/	500
69	flavoxat$.tw.	98
70	OXYBUTYNIN/	2029
71	oxybut?nin$.tw.	665
72	PROPANTHELINE BROMIDE/	1339
73	propantheline$.tw.	223
74	PROPIVERINE/	292
75	propiverine$.tw.	123
76	SOLIFENACIN/	70
77	solifenacin$.tw.	30

78	TOLTERODINE/	680
79	tolterodine$.tw.	245
80	TROSPIUM CHLORIDE/	318
81	trospium$.tw.	75
82	AMITRIPTYLINE/	17506
83	amitriptyline$.tw.	3585
84	AMOXAPINE/	1548
85	amoxapine$.tw.	330
86	CLOMIPRAMINE/	9523
87	clomipramine$.tw.	2155
88	DOSULEPIN/	1436
89	(dosulepin$ or dothiepin$).tw.	309
90	DOXEPIN/	5007
91	doxepin$.tw.	748
92	IMIPRAMINE/	18337
93	imipramine$.tw.	5776
94	LOFEPRAMINE/	698
95	lofepramine$.tw.	125
96	NORTRIPTYLINE/	6988
97	nortriptyline$.tw.	1327
98	TRIMIPRAMINE/	2067
99	trimipramine$.tw.	340
100	DESMOPRESSIN/	4379
101	desmopressin$.tw.	1493
102	ddavp.tw.	1505
103	ESTROGEN/	39242
104	CONJUGATED ESTROGEN/	5145
105	(estrogen$ or oestrogen$).tw.	62951
106	ESTRADIOL/	43526
107	(estradiol$ or oestradiol$).tw.	43037
108	ETHINYLESTRADIOL/	8478
109	ethinyl?estradiol$.tw.	1484
110	ESTRIOL/	3022

111	(estriol$ or oestriol$).tw.	2235
112	ESTRONE/	3968
113	(estrone$ or oestrone$).tw.	4657
114	ESTROGEN THERAPY/	6741
115	BENDROFLUMETHIAZIDE/	1729
116	bendroflumethiazide$.tw.	154
117	CHLORTALIDONE/	3865
118	chlortalidone$.tw.	88
119	CYCLOPENTHIAZIDE/	384
120	cyclopenthiazide$.tw.	73
121	INDAPAMIDE/	1850
122	indapamide$.tw.	717
123	METOLAZONE/	968
124	metolazone$.tw.	151
125	XIPAMIDE/	519
126	xipamide$.tw.	143
127	FUROSEMIDE/	24232
128	(furosemide$ or frusemide$).tw.	7610
129	BUMETANIDE/	3226
130	bumetanide$.tw.	1905
131	TORASEMIDE/	767
132	torasemide$.tw.	268
133	NONSTEROID ANTIINFLAMMATORY AGENT/	38868
134	URINE INCONTINENCE/dt [Drug Therapy]	1158
135	or/59-134	247611
136	and/41,58,135	880
137	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12773
138	136 not 137	880

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to April Week 3 2005

URINC_pharmacotherapies_RCT_SR_cinahl_250405

#	Search History	Results
1	exp CLINICAL TRIALS/	29753
2	(clinic$ adj5 trial$).tw,sh.	7721
3	clinical trial.pt.	13260
4	SINGLE-BLIND STUDIES/	1497
5	DOUBLE-BLIND STUDIES/	6022
6	TRIPLE-BLIND STUDIES/	28
7	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	4194
8	RANDOM ASSIGNMENT/	9434
9	random$.tw.	28935
10	RANDOMIZED CONTROLLED TRIALS/	22453
11	randomi?ed control$ trial$.tw.	5630
12	PLACEBOS/	2649
13	placebo$.tw.	5799
14	or/1-13	50991
15	META ANALYSIS/	3951
16	((meta adj analy$) or metaanalys$ or meta-analy$).tw.	2370
17	SYSTEMATIC REVIEW/	1877
18	systematic review$.pt.	5081
19	(systematic$ adj5 (review$ or overview$)).tw.	4681
20	LITERATURE REVIEW/	1959
21	or/15-20	11193
22	("review" or "review studies" or "review academic" or "review tutorial").ti,ab,sh,pt.	66191
23	(medline or medlars or embase or cochrane or scisearch or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation").tw.	5318
24	((hand or manual$) adj2 search$).tw.	666
25	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	937
26	(pooling or pooled or mantel haenszel).tw.	1286
27	(peto or dersimonian or "der simonian" or fixed effect).tw.	245

28	or/23-27	6774
29	22 and 28	4607
30	or/21,29	12328
31	letter.pt,sh.	26885
32	commentary.pt,sh.	41262
33	editorial.pt,sh.	55734
34	manuscripts.pt,sh.	392
35	pamphlets.pt,sh.	877
36	reports.pt,sh.	1537
37	newsletters.pt,sh.	291
38	newspapers.pt,sh.	319
39	ANIMALS/ or ANIMAL STUDIES/	3298
40	or/31-39	111250
41	14 not 40	44383
42	30 not 40	10502
43	or/41-42	50418
44	URINARY INCONTINENCE/	2817
45	STRESS INCONTINENCE/	499
46	URGE INCONTINENCE/	166
47	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1821
48	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	213
49	OAB.tw.	24
50	((urgency adj frequency) or (frequency adj urgency)).tw.	52
51	((urinary adj frequency) or (urinary adj urgency)).tw.	75
52	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	40
53	nocturia.tw.	72
54	or/44-53	3679
55	duloxetine$.tw.	16
56	MUSCARINIC ANTAGONISTS/	56
57	(antimuscarinic$ or (anti adj muscarinic$)).tw.	26
58	CHOLINERGIC ANTAGONISTS/	269
59	(anticholinergic$ or (anti adj cholinergic$)).tw.	309
60	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	10

61	darifenacin$.tw.	3
62	flavoxat$.tw.	2
63	OXYBUTYNIN/	15
64	oxybut?nin$.tw.	50
65	propantheline$.tw.	5
66	propiverine$.tw.	3
67	solifenacin$.tw.	2
68	TOLTERODINE/	12
69	tolterodine$.tw.	36
70	trospium$.tw.	8
71	AMITRIPTYLINE/	124
72	amitriptyline$.tw.	106
73	AMOXAPINE/	2
74	amoxapine$.tw.	10
75	CLOMIPRAMINE/	35
76	clomipramine$.tw.	30
77	(dosulepin$ or dothiepin$).tw.	3
78	DOXEPIN/	22
79	doxepin$.tw.	26
80	IMIPRAMINE/	73
81	imipramine$.tw.	65
82	lofepramine$.tw.	1
83	NORTRIPTYLINE/	50
84	nortriptyline$.tw.	58
85	trimipramine$.tw.	3
86	DESMOPRESSIN/	78
87	desmopressin$.tw.	51
88	ddavp.tw.	23
89	ESTROGENS/	1955
90	(estrogen$ or oestrogen$).tw.	2008
91	ESTRADIOL/	405
92	(estradiol$ or oestradiol$).tw.	343
93	ethinyl?estradiol$.tw.	13

94	ESTRIOL/	61
95	(estriol$ or oestriol$).tw.	37
96	(estrone$ or oestrone$).tw.	50
97	HORMONE REPLACEMENT THERAPY/	3270
98	bendroflumethiazide$.tw.	0
99	chlortalidone$.tw.	1
100	cyclopenthiazide$.tw.	0
101	indapamide$.tw.	26
102	metolazone$.tw.	5
103	xipamide$.tw.	0
104	FUROSEMIDE/	137
105	(furosemide$ or frusemide$).tw.	106
106	bumetanide$.tw.	6
107	torasemide$.tw.	0
108	ANTIINFLAMMATORY AGENTS, NON-STEROIDAL/	2143
109	URINARY INCONTINENCE/dt [Drug Therapy]	208
110	or/55-109	8783
111	and/43,54,110	67
112	ANIMALS/ or ANIMAL STUDIES/	3298
113	111 not 112	67

British Nursing Index
1985 to April 2005

URINC_pharmacotherapies_RCT_SR_bni_250405

#	**Search History**	**Results**
1	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw.	188
2	((systematic$ or methodologic$) adj3 (review$ or overview$)).tw.	487
3	or/1-2	645
4	exp CLINICAL TRIALS/	4556
5	(clinic$ adj3 trial$).tw.	327
6	((single or double or triple or treble) adj3 (blind$ or mask$)).tw.	73

7	(random$ adj3 (allocat$ or method$ or trial$)).tw.	931
8	placebo$.tw.	113
9	or/4-8	5672
10	or/3,9	6192
11	(medline or medlars or embase or cinahl or cochrane or psyc?info or psyc?lit or "web of science" or "science citation" or scisearch).tw.	80
12	((hand or manual$) adj3 search$).tw.	0
13	(der?simonian or fixed effect or mantel haenszel or peto or pooled or pooling).tw.	27
14	or/11-13	107
15	or/10,14	6269
16	INCONTINENCE/	1661
17	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
18	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	21
19	OAB.tw.	0
20	((urgency adj frequency) or (frequency adj urgency)).tw.	1
21	((urinary adj frequency) or (urinary adj urgency)).tw.	3
22	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
23	nocturia.tw.	7
24	or/16-23	1703
25	duloxetine$.tw.	2
26	(antimuscarinic$ or (anti adj muscarinic$)).tw.	1
27	(anticholinergic$ or (anti adj cholinergic$)).tw.	4
28	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	0
29	darifenacin$.tw.	0
30	flavoxat$.tw.	0
31	oxybut?nin$.tw.	0
32	propantheline$.tw.	0
33	propiverine$.tw.	0
34	solifenacin$.tw.	0
35	tolterodine$.tw.	1
36	trospium$.tw.	0
37	amitriptyline$.tw.	4
38	amoxapine$.tw.	0

39	clomipramine$.tw.	0
40	(dosulepin$ or dothiepin$).tw.	1
41	doxepin$.tw.	0
42	imipramine$.tw.	1
43	lofepramine$.tw.	0
44	nortriptyline$.tw.	1
45	trimipramine$.tw.	0
46	desmopressin$.tw.	4
47	ddavp.tw.	1
48	(estrogen$ or oestrogen$).tw.	55
49	(estradiol$ or oestradiol$).tw.	2
50	ethinyl?estradiol$.tw.	1
51	(estriol$ or oestriol$).tw.	0
52	(estrone$ or oestrone$).tw.	0
53	HORMONE REPLACEMENT THERAPY/	270
54	bendroflumethiazide$.tw.	0
55	chlortalidone$.tw.	0
56	cyclopenthiazide$.tw.	0
57	indapamide$.tw.	0
58	metolazone$.tw.	0
59	xipamide$.tw.	0
60	(furosemide$ or frusemide$).tw.	1
61	bumetanide$.tw.	0
62	torasemide$.tw.	0
63	NSAIDS.tw.	29
64	or/25-63	364
65	and/15,24,64	1

PsycINFO
1967 to April Week 3 2005

URINC_pharmacotherapies_RCT_SR_psycinfo_250405

#	Search History	Results
1	LITERATURE REVIEW/	22035
2	BETWEEN GROUPS DESIGN/	84
3	EXPERIMENTAL DESIGN/	5758
4	RANDOM SAMPLING/	270
5	EXPERIMENT CONTROLS/	341
6	META-ANALYSIS/	2584
7	random$.tw.	52150
8	(meta-analys#s or metaanalys#s).ti.	2670
9	(systematic$ adj (review$ or overview$)).ti.	549
10	((single or double or triple) adj (blind$ or mask$)).ti.	2399
11	rct.tw.	210
12	or/1-11	84260
13	report.pt,sh.	0
14	letter.pt,sh.	0
15	case report.pt,sh.	22035
16	comment.pt,sh.	0
17	editorial.pt,sh.	0
18	historical article.pt,sh.	0
19	review of reported cases.pt,sh.	0
20	review, multicase.pt,sh.	0
21	or/13-20	22035
22	12 not 21	84088
23	URINARY INCONTINENCE/	1065
24	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	437
25	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	40
26	OAB.tw.	7
27	((urgency adj frequency) or (frequency adj urgency)).tw.	12
28	((urinary adj frequency) or (urinary adj urgency)).tw.	31

29	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8
30	nocturia.tw.	22
31	or/23-30	1280
32	duloxetine$.tw.	51
33	(antimuscarinic$ or (anti adj muscarinic$)).tw.	124
34	CHOLINERGIC BLOCKING DRUGS/	977
35	(anticholinergic$ or (anti adj cholinergic$)).tw.	1843
36	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	1060
37	darifenacin$.tw.	0
38	flavoxat$.tw.	0
39	oxybut?nin$.tw.	16
40	propantheline$.tw.	4
41	propiverine$.tw.	0
42	solifenacin$.tw.	0
43	tolterodine$.tw.	7
44	trospium$.tw.	0
45	AMITRIPTYLINE/	1189
46	amitriptyline$.tw.	1909
47	CHLORIMIPRAMINE/	1033
48	clomipramine$.tw.	1468
49	(dosulepin$ or dothiepin$).tw.	142
50	DOXEPIN/	37
51	doxepin$.tw.	365
52	IMIPRAMINE/	2142
53	imipramine$.tw.	3454
54	lofepramine$.tw.	90
55	NORTRIPTYLINE/	223
56	nortriptyline$.tw.	780
57	trimipramine$.tw.	120
58	desmopressin$.tw.	47
59	ddavp.tw.	49
60	ESTROGENS/	1460
61	(estrogen$ or oestrogen$).tw.	3141

62	ESTRADIOL/	1437
63	(estradiol$ or oestradiol$).tw.	2536
64	ethinyl?estradiol$.tw.	13
65	(estriol$ or oestriol$).tw.	24
66	ESTRONE/	18
67	(estrone$ or oestrone$).tw.	89
68	HORMONE THERAPY/	734
69	bendroflumethiazide$.tw.	3
70	chlortalidone$.tw.	0
71	cyclopenthiazide$.tw.	0
72	indapamide$.tw.	0
73	metolazone$.tw.	0
74	xipamide$.tw.	0
75	(furosemide$ or frusemide$).tw.	84
76	bumetanide$.tw.	3
77	torasemide$.tw.	0
78	ANTI INFLAMMATORY DRUGS/	415
79	or/32-78	15855
80	and/22,31,79	12
81	limit 80 to human	12

Ovid MEDLINE

1966 to June Week 1 2005

URINC_pharmacotherapies_economic_specific_medline_150605

#	**Search History**	**Results**
1	ECONOMICS/	23946
2	"COSTS AND COST ANALYSIS"/	33281
3	COST ALLOCATION/	1708
4	COST-BENEFIT ANALYSIS/	35120
5	COST CONTROL/	16277
6	COST SAVINGS/	5146

7	COST OF ILLNESS/	6899
8	COST SHARING/	1035
9	HEALTH CARE COSTS/	12621
10	DIRECT SERVICE COSTS/	710
11	DRUG COSTS/	6607
12	EMPLOYER HEALTH COSTS/	867
13	HOSPITAL COSTS/	4612
14	HEALTH RESOURCES/	5290
15	"HEALTH SERVICES NEEDS AND DEMAND"/	20608
16	HEALTH PRIORITIES/	5488
17	HEALTH EXPENDITURES/	8440
18	CAPITAL EXPENDITURES/	1735
19	FINANCIAL MANAGEMENT/	13773
20	FINANCIAL MANAGEMENT, HOSPITAL/	6178
21	QUALITY-ADJUSTED LIFE YEARS/	2165
22	"DEDUCTIBLES AND COINSURANCE"/	1011
23	MEDICAL SAVINGS ACCOUNTS/	179
24	ECONOMICS, HOSPITAL/	7612
25	ECONOMICS, MEDICAL/	5206
26	ECONOMICS, NURSING/	3664
27	ECONOMICS, PHARMACEUTICAL/	1465
28	MODELS, ECONOMIC/	2205
29	MODELS, ECONOMETRIC/	1992
30	RESOURCE ALLOCATION/	5109
31	HEALTH CARE RATIONING/	8057
32	"FEES AND CHARGES"/	6652
33	BUDGETS/	6725
34	VALUE OF LIFE/	4434
35	(financ$ or fiscal$ or funding).ti.	10868
36	(QALY$ or life?year$).ti.	161
37	(econom$ or cost$).ti.	62767
38	pharmacoeconomic$.ti.	865
39	or/1-38	231992

40	URINARY INCONTINENCE/	11761
41	URINARY INCONTINENCE, STRESS/	5326
42	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11797
43	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1584
44	OAB.tw.	125
45	((urgency adj frequency) or (frequency adj urgency)).tw.	628
46	((urinary adj frequency) or (urinary adj urgency)).tw.	765
47	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1393
48	nocturia.tw.	807
49	or/40-48	20942
50	duloxetine$.tw.	157
51	MUSCARINIC ANTAGONISTS/	3739
52	(antimuscarinic$ or (anti adj muscarinic$)).tw.	1109
53	CHOLINERGIC ANTAGONISTS/	1716
54	(anticholinergic$ or (anti adj cholinergic$)).tw.	6671
55	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	7426
56	darifenacin$.tw.	65
57	FLAVOXATE/	80
58	flavoxat$.tw.	113
59	oxybut?nin$.tw.	580
60	PROPANTHELINE/	505
61	propantheline$.tw.	307
62	propiverine$.tw.	93
63	solifenacin$.tw.	23
64	tolterodine$.tw.	221
65	trospium$.tw.	58
66	AMITRIPTYLINE/	4875
67	amitriptyline$.tw.	4059
68	AMOXAPINE/	299
69	amoxapine$.tw.	330
70	CLOMIPRAMINE/	2316
71	clomipramine$.tw.	2076
72	DOTHIEPIN/	246

73	(dosulepin$ or dothiepin$).tw.	248
74	DOXEPIN/	648
75	doxepin$.tw.	862
76	IMIPRAMINE/	7867
77	imipramine$.tw.	6872
78	LOFEPRAMINE/	99
79	lofepramine$.tw.	124
80	NORTRIPTYLINE/	1648
81	nortriptyline$.tw.	1526
82	TRIMIPRAMINE/	285
83	trimipramine$.tw.	325
84	DESMOPRESSIN/	2684
85	desmopressin$.tw.	1414
86	ddavp.tw.	1641
87	ESTROGENS/	32317
88	"ESTROGENS, CONJUGATED (USP)"/	2659
89	(estrogen$ or oestrogen$).tw.	75104
90	ESTRADIOL/	55686
91	ESTRADIOL CONGENERS/	1962
92	(estradiol$ or oestradiol$).tw.	52497
93	ETHINYL ESTRADIOL/	5873
94	ethinyl?estradiol$.tw.	1447
95	ESTRIOL/	4944
96	(estriol$ or oestriol$).tw.	3643
97	ESTRONE/	6791
98	(estrone$ or oestrone$).tw.	6184
99	ESTROGEN REPLACEMENT THERAPY/	9496
100	BENDROFLUMETHIAZIDE/	494
101	bendroflumethiazide$.tw.	170
102	CHLORTHALIDONE/	1015
103	chlortalidone$.tw.	44
104	CYCLOPENTHIAZIDE/	99
105	cyclopenthiazide$.tw.	97

106	INDAPAMIDE/	583
107	indapamide$.tw.	625
108	METOLAZONE/	143
109	metolazone$.tw.	203
110	XIPAMIDE/	86
111	xipamide$.tw.	101
112	FUROSEMIDE/	9594
113	(furosemide$ or frusemide$).tw.	9080
114	BUMETANIDE/	1445
115	bumetanide$.tw.	2137
116	torasemide$.tw.	185
117	ANTI-INFLAMMATORY AGENTS, NON-STEROIDAL/	30947
118	URINARY INCONTINENCE/dt [Drug Therapy]	847
119	URINARY INCONTINENCE, STRESS/dt [Drug Therapy]	264
120	or/50-119	226648
121	and/39,49,120	32
122	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2868435
123	121 not 122	32

EMBASE

1980 to 2005 Week 24

URINC_pharmacotherapies_economic_specific_embase_150605

#	**Search History**	**Results**
1	ECONOMICS/	4630
2	HEALTH ECONOMICS/	7512
3	ECONOMIC EVALUATION/	2508
4	COST BENEFIT ANALYSIS/	20803
5	COST CONTROL/	12694
6	COST EFFECTIVENESS ANALYSIS/	38336
7	COST MINIMIZATION ANALYSIS/	816
8	COST OF ILLNESS/	2521

9	COST UTILITY ANALYSIS/	1331
10	COST/	17506
11	HEALTH CARE COST/	41732
12	DRUG COST/	23700
13	HEALTH CARE FINANCING/	7551
14	HOSPITAL COST/	4583
15	SOCIOECONOMICS/	19958
16	ECONOMIC ASPECT/	62992
17	QUALITY-ADJUSTED LIFE YEARS/	1948
18	FINANCIAL MANAGEMENT/	15427
19	PHARMACOECONOMICS/	834
20	RESOURCE ALLOCATION/	5277
21	(financ$ or fiscal$ or funding).ti.	4974
22	(QALY$ or life?year$).ti.	111
23	(econom$ or cost$).ti.	40912
24	pharmacoeconomic$.ti.	1049
25	or/1-24	224003
26	URINE INCONTINENCE/	9745
27	STRESS INCONTINENCE/	4654
28	URGE INCONTINENCE/	1502
29	MIXED INCONTINENCE/	66
30	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9741
31	OVERACTIVE BLADDER/	491
32	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1532
33	OAB.tw.	146
34	URINARY URGENCY/	461
35	URINARY FREQUENCY/	586
36	((urgency adj frequency) or (frequency adj urgency)).tw.	579
37	((urinary adj frequency) or (urinary adj urgency)).tw.	702
38	DETRUSOR DYSSYNERGIA/	1754
39	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1387
40	NOCTURIA/	1004
41	nocturia.tw.	758

42	or/26-41	18302
43	DULOXETINE/	478
44	duloxetine$.tw.	201
45	MUSCARINIC RECEPTOR BLOCKING AGENT/	2755
46	(antimuscarinic$ or (anti adj muscarinic$)).tw.	1116
47	CHOLINERGIC RECEPTOR BLOCKING AGENT/	9923
48	(anticholinergic$ or (anti adj cholinergic$)).tw.	6073
49	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	6998
50	DARIFENACIN/	202
51	darifenacin$.tw.	79
52	FLAVOXATE/	506
53	flavoxat$.tw.	99
54	OXYBUTYNIN/	2077
55	oxybut?nin$.tw.	677
56	PROPANTHELINE BROMIDE/	1346
57	propantheline$.tw.	223
58	PROPIVERINE/	299
59	propiverine$.tw.	126
60	SOLIFENACIN/	81
61	solifenacin$.tw.	33
62	TOLTERODINE/	713
63	tolterodine$.tw.	254
64	TROSPIUM CHLORIDE/	329
65	trospium$.tw.	78
66	AMITRIPTYLINE/	17663
67	amitriptyline$.tw.	3594
68	AMOXAPINE/	1555
69	amoxapine$.tw.	330
70	CLOMIPRAMINE/	9609
71	clomipramine$.tw.	2167
72	DOSULEPIN/	1442
73	(dosulepin$ or dothiepin$).tw.	311
74	DOXEPIN/	5047

75	doxepin$.tw.	749
76	IMIPRAMINE/	18456
77	imipramine$.tw.	5793
78	LOFEPRAMINE/	702
79	lofepramine$.tw.	125
80	NORTRIPTYLINE/	7059
81	nortriptyline$.tw.	1329
82	TRIMIPRAMINE/	2078
83	trimipramine$.tw.	341
84	DESMOPRESSIN/	4428
85	desmopressin$.tw.	1507
86	ddavp.tw.	1517
87	ESTROGEN/	39696
88	CONJUGATED ESTROGEN/	5204
89	(estrogen$ or oestrogen$).tw.	63590
90	ESTRADIOL/	43930
91	(estradiol$ or oestradiol$).tw.	43357
92	ETHINYLESTRADIOL/	8548
93	ethinyl?estradiol$.tw.	1498
94	ESTRIOL/	3048
95	(estriol$ or oestriol$).tw.	2248
96	ESTRONE/	4021
97	(estrone$ or oestrone$).tw.	4711
98	ESTROGEN THERAPY/	6826
99	BENDROFLUMETHIAZIDE/	1759
100	bendroflumethiazide$.tw.	156
101	CHLORTALIDONE/	3900
102	chlortalidone$.tw.	89
103	CYCLOPENTHIAZIDE/	385
104	cyclopenthiazide$.tw.	73
105	INDAPAMIDE/	1874
106	indapamide$.tw.	719
107	METOLAZONE/	979

108	metolazone$.tw.	151
109	XIPAMIDE/	521
110	xipamide$.tw.	143
111	FUROSEMIDE/	24433
112	(furosemide$ or frusemide$).tw.	7633
113	BUMETANIDE/	3249
114	bumetanide$.tw.	1911
115	TORASEMIDE/	780
116	torasemide$.tw.	268
117	NONSTEROID ANTIINFLAMMATORY AGENT/	39603
118	URINE INCONTINENCE/dt [Drug Therapy]	1174
119	or/43-118	250193
120	and/25,42,119	174
121	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12786
122	120 not 121	174

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URINC_pharmacotherapies_economic_specific_cinahl_150605

#	Search History	Results
1	ECONOMICS/	535
2	"COSTS AND COST ANALYSIS"/	3196
3	COST BENEFIT ANALYSIS/	4209
4	COST CONTROL/	2068
5	COST SAVINGS/	2679
6	COST OF ILLNESS/	926
7	HEALTH CARE COSTS/	5188
8	ECONOMIC ASPECTS OF ILLNESS/	926
9	ECONOMICS, PHARMACEUTICAL/	693
10	HEALTH CARE FINANCING/	2415
11	FINANCIAL MANAGEMENT/	2675

12	HOSPITAL COST/	779
13	SOCIOECONOMIC FACTORS/	9334
14	HEALTH RESOURCE ALLOCATION/	2262
15	(financ$ or fiscal$ or funding).ti.	3629
16	(QALY$ or life?year$).ti.	7
17	(econom$ or cost$).ti.	11053
18	pharmacoeconomic$.ti.	92
19	or/1-18	39760
20	URINARY INCONTINENCE/	2874
21	STRESS INCONTINENCE/	524
22	URGE INCONTINENCE/	173
23	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1871
24	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	223
25	OAB.tw.	25
26	((urgency adj frequency) or (frequency adj urgency)).tw.	57
27	((urinary adj frequency) or (urinary adj urgency)).tw.	83
28	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	40
29	nocturia.tw.	74
30	or/20-29	3782
31	duloxetine$.tw.	21
32	MUSCARINIC ANTAGONISTS/	58
33	(antimuscarinic$ or (anti adj muscarinic$)).tw.	26
34	CHOLINERGIC ANTAGONISTS/	274
35	(anticholinergic$ or (anti adj cholinergic$)).tw.	317
36	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	12
37	darifenacin$.tw.	4
38	flavoxat$.tw.	2
39	OXYBUTYNIN/	16
40	oxybut?nin$.tw.	52
41	propantheline$.tw.	5
42	propiverine$.tw.	3
43	solifenacin$.tw.	2
44	TOLTERODINE/	12

45	tolterodine$.tw.	37
46	trospium$.tw.	9
47	AMITRIPTYLINE/	124
48	amitriptyline$.tw.	108
49	AMOXAPINE/	2
50	amoxapine$.tw.	10
51	CLOMIPRAMINE/	36
52	clomipramine$.tw.	32
53	(dosulepin$ or dothiepin$).tw.	4
54	DOXEPIN/	22
55	doxepin$.tw.	27
56	IMIPRAMINE/	75
57	imipramine$.tw.	68
58	lofepramine$.tw.	1
59	NORTRIPTYLINE/	52
60	nortriptyline$.tw.	61
61	trimipramine$.tw.	4
62	DESMOPRESSIN/	84
63	desmopressin$.tw.	53
64	ddavp.tw.	24
65	ESTROGENS/	2014
66	(estrogen$ or oestrogen$).tw.	2062
67	ESTRADIOL/	430
68	(estradiol$ or oestradiol$).tw.	363
69	ethinyl?estradiol$.tw.	13
70	ESTRIOL/	64
71	(estriol$ or oestriol$).tw.	38
72	(estrone$ or oestrone$).tw.	52
73	HORMONE REPLACEMENT THERAPY/	3361
74	bendroflumethiazide$.tw.	0
75	chlortalidone$.tw.	1
76	cyclopenthiazide$.tw.	0
77	indapamide$.tw.	26

78	metolazone$.tw.	5
79	xipamide$.tw.	0
80	FUROSEMIDE/	140
81	(furosemide$ or frusemide$).tw.	113
82	bumetanide$.tw.	6
83	torasemide$.tw.	0
84	ANTIINFLAMMATORY AGENTS, NON-STEROIDAL/	2212
85	URINARY INCONTINENCE/dt [Drug Therapy]	214
86	or/31-85	9050
87	and/19,30,86	9
88	ANIMALS/ or ANIMAL STUDIES/	3391
89	87 not 88	9

Ovid MEDLINE
1966 to March Week 5 2005

URINC_containment_without_filter_medline_130405

#	Search History	Results
1	URINARY INCONTINENCE/	11613
2	URINARY INCONTINENCE, STRESS/	5262
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11626
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1542
5	OAB.tw.	117
6	((urgency adj frequency) or (frequency adj urgency)).tw.	611
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1378
8	nocturia.tw.	780
9	or/1-8	20313
10	ABSORBENT PADS/	11
11	INCONTINENCE PADS/	256
12	DIAPERS, ADULT/	16
13	DISPOSABLE EQUIPMENT/	3406
14	CLOTHING/ and (pc or th or tu).fs.	1142

15	((incontinen$ or continen$) adj2 (pad$ or underpad$ or diaper$)).tw.	237
16	((reus$ or dispos$ or wash$ or absorb$) adj3 (pad$ or underpad$ or diaper$ or garment$ or undergarment$ or product$)).tw.	1735
17	((pant$ adj1 liner$) or pantyliner$).tw.	16
18	PESSARIES/	666
19	TAMPONS/	1274
20	((urethral$ or intraurethral$ or vaginal$ or intravaginal$) adj3 (device$ or bung$ or sponge$ or plug$ or ring$ or barrier$)).tw.	1106
21	(continen$ adj3 (guard$ or shield$)).tw.	14
22	URINARY CATHETERIZATION/	9688
23	CATHETERS, INDWELLING/	10644
24	((indwell$ or self$ or intermittent$) adj1 catheter$).tw.	3954
25	(urin$ adj3 collect$ adj3 device$).tw.	64
26	((continence or incontinence) adj aid$).tw.	41
27	or/10-26	30752
28	and/9,27	2210
29	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2840038
30	28 not 29	2177
31	FEMALE/ or WOMEN/ or (female$ or wom?n).mp.	4222474
32	and/30-31	1525

EMBASE

1980 to 2005 Week 15

URINC_containment_without_filter_embase_130405

#	Search History	Results
1	URINE INCONTINENCE/	9537
2	STRESS INCONTINENCE/	4546
3	URGE INCONTINENCE/	1469
4	MIXED INCONTINENCE/	63
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9565
6	OVERACTIVE BLADDER/	447
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1487

8	OAB.tw.	134
9	URINARY URGENCY/	418
10	URINARY FREQUENCY/	537
11	((urgency adj frequency) or (frequency adj urgency)).tw.	570
12	DETRUSOR DYSSYNERGIA/	1741
13	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1371
14	NOCTURIA/	981
15	nocturia.tw.	743
16	or/1-15	17675
17	DIAPER/	266
18	ABSORPTION/	6967
19	DISPOSABLE EQUIPMENT/	1224
20	CLOTHING/ and (pc or th).fs.	280
21	((incontinen$ or continen$) adj2 (pad$ or underpad$ or diaper$)).tw.	210
22	((reus$ or dispos$ or wash$ or absorb$) adj3 (pad$ or underpad$ or diaper$ or garment$ or undergarment$ or product$)).tw.	1753
23	((pant$ adj1 liner$) or pantyliner$).tw.	13
24	VAGINA PESSARY/	507
25	TAMPON/	397
26	((urethral$ or intraurethral$ or vaginal$ or intravaginal$) adj3 (device$ or bung$ or sponge$ or plug$ or ring$ or barrier$)).tw.	837
27	(continen$ adj3 (guard$ or shield$)).tw.	17
28	CATHETERIZATION/	5224
29	INDWELLING CATHETER/	1701
30	INTERMITTENT CATHETERIZATION/	813
31	((indwell$ or self$ or intermittent$) adj1 catheter$).tw.	3167
32	(urin$ adj3 collect$ adj3 device$).tw.	30
33	((continence or incontinence) adj aid$).tw.	28
34	or/17-33	21495
35	and/16,34	1375
36	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12772
37	35 not 36	1375
38	FEMALES/ or WOMEN/ or (female$ or wom?n).mp.	1962461
39	and/37-38	849

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URINC_containment_without_filter_cinahl_130405

#	Search History	Results
1	URINARY INCONTINENCE/	2806
2	STRESS INCONTINENCE/	494
3	URGE INCONTINENCE/	163
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1812
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	209
6	OAB.tw.	24
7	((urgency adj frequency) or (frequency adj urgency)).tw.	52
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	39
9	nocturia.tw.	72
10	or/1-9	3640
11	INCONTINENCE AIDS/	455
12	ABSORPTION/	280
13	DISPOSABLE EQUIPMENT/	651
14	CLOTHING/ and (pc or th or tu).fs.	146
15	((incontinen$ or continen$) adj2 (pad$ or underpad$ or diaper$)).tw.	51
16	((reus$ or dispos$ or wash$ or absorb$) adj3 (pad$ or underpad$ or diaper$ or garment$ or undergarment$ or product$)).tw.	166
17	((pant$ adj1 liner$) or pantyliner$).tw.	5
18	PESSARIES/	39
19	TAMPONS/	60
20	((urethral$ or intraurethral$ or vaginal$ or intravaginal$) adj3 (device$ or bung$ or sponge$ or plug$ or ring$ or barrier$)).tw.	61
21	(continen$ adj3 (guard$ or shield$)).tw.	1
22	URINARY CATHETERIZATION/	755
23	URINARY CATHETERIZATION, INTERMITTENT/	200
24	((indwell$ or self$ or intermittent$) adj1 catheter$).tw.	371
25	(urin$ adj3 collect$ adj3 device$).tw.	13
26	((continence or incontinence) adj aid$).tw.	29
27	or/11-26	2820

28	and/10,27	449
29	ANIMALS/ or ANIMAL STUDIES/	3295
30	28 not 29	449

British Nursing Index
1985 to March 2005

URINC_containment_without_filter_bni_130405

#	Search History	Results
1	INCONTINENCE/	1654
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	20
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
7	nocturia.tw.	7
8	or/1-7	1694
9	"EQUIPMENT AND SUPPLIES"/	1150
10	((incontinen$ or continen$) adj2 (pad$ or underpad$ or diaper$)).tw.	36
11	((reus$ or dispos$ or wash$ or absorb$) adj3 (pad$ or underpad$ or diaper$ or garment$ or undergarment$ or product$)).tw.	40
12	((pant$ adj1 liner$) or pantyliner$).tw.	0
13	((urethral$ or intraurethral$ or vaginal$ or intravaginal$) adj3 (device$ or bung$ or sponge$ or plug$ or ring$ or barrier$)).tw.	7
14	(continen$ adj3 (guard$ or shield$)).tw.	0
15	URINARY CATHETERS/	338
16	CATHETERS URINARY/	164
17	((indwell$ or self$ or intermittent$) adj1 catheter$).tw.	120
18	(urin$ adj3 collect$ adj3 device$).tw.	1
19	((continence or incontinence) adj aid$).tw.	22
20	or/9-19	1714
21	and/8,20	145

PsycINFO

1967 to April Week 1 2005

URINC_containment_without_filter_psycinfo_130405

#	Search History	Results
1	URINARY INCONTINENCE/	1063
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	39
4	OAB.tw.	7
5	((urgency adj frequency) or (frequency adj urgency)).tw.	12
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8
7	nocturia.tw.	22
8	or/1-7	1260
9	((incontinen$ or continen$) adj2 (pad$ or underpad$ or diaper$)).tw.	4
10	((reus$ or dispos$ or wash$ or absorb$) adj3 (pad$ or underpad$ or diaper$ or garment$ or undergarment$ or product$)).tw.	76
11	((pant$ adj1 liner$) or pantyliner$).tw.	2
12	((urethral$ or intraurethral$ or vaginal$ or intravaginal$) adj3 (device$ or bung$ or sponge$ or plug$ or ring$ or barrier$)).tw.	28
13	(continen$ adj3 (guard$ or shield$)).tw.	0
14	CATHETERIZATION/	108
15	((indwell$ or self$ or intermittent$) adj1 catheter$).tw.	45
16	(urin$ adj3 collect$ adj3 device$).tw.	2
17	((continence or incontinence) adj aid$).tw.	5
18	or/9-17	249
19	and/8,18	15

Ovid MEDLINE

1966 to March Week 2 2005

URINC_alternative_therapies_medline_220305

#	Search History	Results
1	URINARY INCONTINENCE/	11575

2	URINARY INCONTINENCE, STRESS/	5247
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11583
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1528
5	OAB.tw.	112
6	((urgency adj frequency) or (frequency adj urgency)).tw.	604
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1371
8	nocturia.tw.	778
9	or/1-8	20231
10	COMPLEMENTARY THERAPIES/	7672
11	exp ACUPUNCTURE THERAPY/	8722
12	acupuncture$.tw.	6604
13	AROMATHERAPY/	237
14	(aromatherap$ or aroma therap$).tw.	270
15	HYPNOSIS/	5490
16	hypnosis.tw.	3762
17	MANIPULATION, OSTEOPATHIC/	69
18	OSTEOPATHIC MEDICINE/	1595
19	osteopath$.tw.	2306
20	MASSAGE/	2770
21	reflexolog$.tw.	166
22	(craniosacral$ or cranio sacral$).tw.	37
23	NATUROPATHY/	409
24	naturopath$.tw.	258
25	PHYTOTHERAPY/	11037
26	phytotherap$.tw.	498
27	MEDICINE, CHINESE TRADITIONAL/	5040
28	DRUGS, CHINESE HERBAL/	11280
29	(chinese adj3 (drug$ or herb$ or medicin$)).tw.	6332
30	PLANT EXTRACTS/	27177
31	PLANTS, MEDICINAL/	38575
32	PLANTS/	41251
33	intramuscular stimulat$.tw.	44
34	or/10-33	140219

35	and/9,34	95
36	ANIMALS/ not (HUMANS/ or (HUMANS/ and ANIMALS/))	2833441
37	35 not 36	93
38	FEMALE/ or WOMEN/ or (female$ or wom?n).mp.	4210332
39	and/37-38	52

EMBASE
1980 to 2005 Week 12

URINC_alternative_therapies_embase_220305

#	Search History	Results
1	URINE INCONTINENCE/	9492
2	STRESS INCONTINENCE/	4523
3	URGE INCONTINENCE/	1459
4	MIXED INCONTINENCE/	63
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9529
6	OVERACTIVE BLADDER/	432
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1472
8	OAB.tw.	130
9	URINARY URGENCY/	406
10	URINARY FREQUENCY/	526
11	((urgency adj frequency) or (frequency adj urgency)).tw.	567
12	DETRUSOR DYSSYNERGIA/	1736
13	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1366
14	NOCTURIA/	967
15	nocturia.tw.	734
16	or/1-15	17575
17	ALTERNATIVE MEDICINE/	7252
18	ACUPUNCTURE/	6862
19	acupuncture$.tw.	5126
20	(aromatherap$ or aroma therap$).tw.	238
21	HYPNOSIS/	4801

22	hypnosis.tw.	2672
23	MANIPULATIVE MEDICINE/	4743
24	osteopath$.tw.	1518
25	REFLEXOLOGY/	8
26	reflexolog$.tw.	89
27	(craniosacral$ or cranio sacral$).tw.	32
28	naturopath$.tw.	275
29	PHYTOTHERAPY/	2945
30	phytotherap$.tw.	967
31	CHINESE MEDICINE/	3750
32	CHINESE DRUG/	1469
33	(chinese adj3 (drug$ or herb$ or medicin$)).tw.	4542
34	HERBAL MEDICINE/	5914
35	intramuscular stimulat$.tw.	51
36	or/17-35	35591
37	and/16,36	103
38	ANIMAL/ not (HUMAN/ or (HUMAN/ and ANIMAL/))	12771
39	37 not 38	103
40	FEMALES/ or WOMEN/ or (female$ or wom?n).mp.	1954193
41	and/39-40	35

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URINC_alternative_therapies_cinahl_220305

#	**Search History**	**Results**
1	URINARY INCONTINENCE/	2791
2	STRESS INCONTINENCE/	490
3	URGE INCONTINENCE/	158
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1796
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	202
6	OAB.tw.	21

7	((urgency adj frequency) or (frequency adj urgency)).tw.	51
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	39
9	nocturia.tw.	69
10	or/1-9	3610
11	ALTERNATIVE THERAPIES/	7527
12	ACUPUNCTURE/	2271
13	acupuncture$.tw.	1864
14	AROMATHERAPY/	584
15	(aromatherap$ or aroma therap$).tw.	367
16	HYPNOSIS/	561
17	hypnosis.tw.	356
18	OSTEOPATHY/	480
19	MANIPULATION, ORTHOPEDIC/	715
20	osteopath$.tw.	473
21	exp MASSAGE/	2236
22	REFLEXOLOGY/	163
23	reflexolog$.tw.	149
24	CRANIOSACRAL THERAPY/	94
25	(craniosacral$ or cranio sacral$).tw.	81
26	NATUROPATHY/	220
27	naturopath$.tw.	142
28	MEDICINE, HERBAL/	1374
29	phytotherap$.tw.	48
30	MEDICINE, CHINESE TRADITIONAL/	808
31	DRUGS, CHINESE HERBAL/	249
32	(chinese adj3 (drug$ or herb$ or medicin$)).tw.	593
33	PLANT EXTRACTS/	819
34	PLANTS, MEDICINAL/	2989
35	PLANTS/	231
36	intramuscular stimulat$.tw.	6
37	or/11-36	17536
38	and/10,37	32
39	ANIMALS/ or ANIMAL STUDIES/	3255

40	38 not 39	32

British Nursing Index
1985 to March 2005

URINC_alternative_therapies_bni_220305

#	Search History	Results
1	INCONTINENCE/	1654
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	435
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	20
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
7	nocturia.tw.	7
8	or/1-7	1694
9	ALTERNATIVE THERAPIES/	1320
10	ACUPUNCTURE/	7
11	acupuncture$.tw.	165
12	AROMATHERAPY/	125
13	(aromatherap$ or aroma therap$).tw.	170
14	HYPNOSIS/	125
15	hypnosis.tw.	81
16	OSTEOPATHY/	13
17	osteopath$.tw.	50
18	MASSAGE/	156
19	reflexolog$.tw.	60
20	(craniosacral$ or cranio sacral$).tw.	15
21	naturopath$.tw.	16
22	phytotherap$.tw.	2
23	(chinese adj3 (drug$ or herb$ or medicin$)).tw.	53
24	intramuscular stimulat$.tw.	0
25	or/9-24	1888

26	and/8,25	6

PsycINFO

1967 to March Week 2 2005

URINC_alternative_therapies_psycinfo_220305

#	Search History	Results
1	URINARY INCONTINENCE/	1060
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	433
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	39
4	OAB.tw.	7
5	((urgency adj frequency) or (frequency adj urgency)).tw.	12
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8
7	nocturia.tw.	22
8	or/1-7	1255
9	ALTERNATIVE MEDICINE/	910
10	ACUPUNCTURE/	456
11	acupuncture$.tw.	639
12	(aromatherap$ or aroma therap$).tw.	59
13	HYPNOTHERAPY/	3140
14	hypnosis.tw.	6550
15	OSTEOPATHIC MEDICINE/	11
16	osteopath$.tw.	73
17	MASSAGE/	64
18	reflexolog$.tw.	96
19	(craniosacral$ or cranio sacral$).tw.	3
20	naturopath$.tw.	31
21	"MEDICINAL HERBS AND PLANTS"/	424
22	phytotherap$.tw.	11
23	(chinese adj3 (drug$ or herb$ or medicin$)).tw.	200
24	intramuscular stimulat$.tw.	5
25	or/9-24	9591

26	and/8,25	39
27	limit 26 to human	39

AMED database (via Core Content Datastar)

1985 to date

Urinary incontinence in women and complementary therapies/interventions

#	Database	Search term	Info added since	Results
1	Allied & Complementary Medicine - 1985 to date	Urinary-Incontinence#.DE.	unrestricted	382
2	Allied & Complementary Medicine - 1985 to date	(stress$ OR mix$ OR urg$ OR urin$) NEAR incontinen$	unrestricted	515
3	Allied & Complementary Medicine - 1985 to date	bladder$ NEAR (overactiv$ OR incontinen$)	unrestricted	19
4	Allied & Complementary Medicine - 1985 to date	urgency NEAR frequency OR frequency ADJ urgency	unrestricted	11
5	Allied & Complementary Medicine - 1985 to date	detrusor$ NEAR (instabilit$ OR overactiv$)	unrestricted	9
6	Allied & Complementary Medicine - 1985 to date	nocturia	unrestricted	14
7	Allied & Complementary Medicine - 1985 to date	1 OR 2 OR 3 OR 4 OR 5 OR 6	unrestricted	534
8	Allied & Complementary Medicine - 1985 to date	Complementary-Therapies#.DE.	unrestricted	31237
9	Allied & Complementary Medicine - 1985 to date	acupuncture$	unrestricted	6260
10	Allied & Complementary Medicine - 1985 to date	aromatherap$ OR aroma ADJ therap$	unrestricted	415
11	Allied & Complementary Medicine - 1985 to date	hypnosis	unrestricted	3014
12	Allied & Complementary Medicine - 1985 to date	osteopath$	unrestricted	1278
13	Allied & Complementary Medicine - 1985 to date	massage$	unrestricted	1376
14	Allied & Complementary Medicine - 1985 to date	reflexolog$	unrestricted	177
15	Allied & Complementary Medicine - 1985 to date	craniosacral$ OR cranio ADJ sacral$	unrestricted	61
16	Allied & Complementary Medicine - 1985 to date	naturopath$	unrestricted	743
17	Allied & Complementary Medicine - 1985 to date	phytotherap$	unrestricted	575
18	Allied & Complementary Medicine - 1985 to date	chinese NEAR (drug$ OR herb$ OR medicin$)	unrestricted	4536
19	Allied & Complementary Medicine - 1985 to date	plant$ NEAR (extract$ OR medic$)	unrestricted	12345

20	Allied & Complementary Medicine - 1985 to date	intramuscular ADJ stimulat$	unrestricted	6
21	Allied & Complementary Medicine - 1985 to date	8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20	unrestricted	44666
22	Allied & Complementary Medicine - 1985 to date	7 AND 21	unrestricted	76
23	Allied & Complementary Medicine - 1985 to date	female$ OR women OR woman	unrestricted	10339
24	Allied & Complementary Medicine - 1985 to date	22 AND 23	unrestricted	20

Ovid MEDLINE

1966 to August Week 3 2005

URINC_surgical_procedures_medline_300805

#	Search History	Results
1	URINARY INCONTINENCE/	11939
2	URINARY INCONTINENCE, STRESS/	5408
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	11996
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1656
5	OAB.tw.	152
6	((urgency adj frequency) or (frequency adj urgency)).tw.	647
7	((urinary adj frequency) or (urinary adj urgency)).tw.	780
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1421
9	nocturia.tw.	833
10	or/1-9	21283
11	SURGICAL PROCEDURES, OPERATIVE/	23009
12	SURGICAL PROCEDURES, MINIMALLY INVASIVE/	5944
13	UROGENITAL SURGICAL PROCEDURES/	290
14	GYNECOLOGIC SURGICAL PROCEDURES/	1961
15	UROLOGIC SURGICAL PROCEDURES/	1856
16	UROGENITAL SYSTEM/su [Surgery]	344
17	URINARY TRACT/su [Surgery]	450
18	URETER/su [Surgery]	5305
19	URETHRA/su [Surgery]	4277
20	VAGINA/su [Surgery]	3069
21	BLADDER/su [Surgery]	6206
22	LIGAMENTS/su [Surgery]	1012
23	((urethra$ or vagina$ or bladder$) adj surger$).tw.	485
24	or/11-23	49975

25	(colposuspension$ or colpo suspension$).tw.	577
26	vesicosuspension$.tw.	1
27	urethrosuspension$.tw.	3
28	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	63
29	colpourethrosuspension$.tw.	2
30	(corner$ adj3 suspension$).tw.	15
31	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	284
32	(bladder$ adj3 buttress$).tw.	8
33	colpofixation$.tw.	4
34	burch$.tw.	867
35	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	1544
36	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	68
37	(obturator$ adj3 (shelf$ or shelv$)).tw.	3
38	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	635
39	ligament fixation$.tw.	76
40	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	210
41	((anterior$ or vagina$) adj3 repair$).tw.	1423
42	colporraph$.tw.	15
43	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	280
44	(pacey$ or kelly$ or kennedy$).tw.	1970
45	SURGICAL MESH/	4614
46	(sling$ adj3 (procedure$ or operat$)).tw.	614
47	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	827
48	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	1632
49	(tension$ adj3 vagina$).tw.	384
50	tvt.tw.	364
51	tot.tw.	546
52	(slingplast$ or sling plast$).tw.	39
53	bologna$.tw.	833
54	ingelman sundberg$.tw.	37
55	or/25-54	14329
56	"PROSTHESES AND IMPLANTS"/	25792
57	INJECTIONS/	22469
58	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	478
59	injectable$.tw.	4605
60	(injection$ adj3 therap$).tw.	3228

61	subtrigonal$.tw.	27
62	(bulk$ adj3 agent$).tw.	349
63	contigen.tw.	19
64	COLLAGEN/	58307
65	macroplastique$.tw.	36
66	exp SILICONES/	15557
67	microparticulate$.tw.	417
68	HYALURONIC ACID/	8550
69	hyaluronan therap$.tw.	6
70	act balloon$.tw.	1
71	CARBON/	13733
72	carbon particle$.tw.	603
73	POLYTETRAFLUOROETHYLENE/	7611
74	BIOCOMPATIBLE MATERIALS/	21406
75	URINARY SPHINCTER, ARTIFICIAL/	291
76	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	483
77	or/56-76	167043
78	cystoplast$.tw.	535
79	ileocystoplast$.tw.	254
80	colocystoplast$.tw.	93
81	enterocystoplast$.tw.	388
82	ureterocystoplast$.tw.	57
83	or/78-82	1123
84	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	269
85	(implant$ adj3 device$).tw.	4652
86	or/84-85	4912
87	(detrusor$ adj3 myectom$).tw.	5
88	(detrusor$ adj3 myotom$).tw.	7
89	detrusorectom$.tw.	12
90	or/87-89	24
91	exp BOTULINUM TOXINS/	6173
92	botulinum$.tw.	6630
93	botox$.tw.	471
94	or/91-93	7816
95	CAPSAICIN/	5774
96	capsaicin$.tw.	6766
97	resiniferatoxin$.tw.	359
98	or/95-97	7391
99	URINARY DIVERSION/	6405
100	URINARY RESERVOIRS, CONTINENT/	1255

101	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	3384
102	or/99-101	8149
103	exp HYSTERECTOMY/	16090
104	PELVIS/ab, pa [Abnormalities, Pathology]	761
105	or/24,55,77,83,86,90,94,98,102-104	265302
106	and/10,105	6198
107	limit 106 to humans	5991

EMBASE

1980 to 2005 Week 35

URINC_surgical_procedures_embase_300805

#	Search History	Results
1	URINE INCONTINENCE/	9970
2	STRESS INCONTINENCE/	4754
3	URGE INCONTINENCE/	1558
4	MIXED INCONTINENCE/	72
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	9921
6	OVERACTIVE BLADDER/	574
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1605
8	OAB.tw.	165
9	URINARY URGENCY/	518
10	URINARY FREQUENCY/	655
11	((urgency adj frequency) or (frequency adj urgency)).tw.	600
12	((urinary adj frequency) or (urinary adj urgency)).tw.	721
13	DETRUSOR DYSSYNERGIA/	1779
14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1421
15	NOCTURIA/	1046
16	nocturia.tw.	790
17	or/1-16	18746
18	SURGERY/	34658
19	MINIMALLY INVASIVE SURGERY/	5854
20	UROLOGIC SURGERY/	1930
21	GYNECOLOGIC SURGERY/	3843
22	URINARY TRACT SURGERY/	252
23	BLADDER SURGERY/	926
24	URETER SURGERY/	464
25	URETHRA SURGERY/	488

26	((urethra$ or vagina$ or bladder$) adj surger$).tw.	391
27	or/18-26	48145
28	COLPOSUSPENSION/	569
29	(colposuspension$ or colpo suspension$).tw.	567
30	vesicosuspension$.tw.	1
31	urethrosuspension$.tw.	1
32	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	36
33	colpourethrosuspension$.tw.	2
34	(corner$ adj3 suspension$).tw.	15
35	URETHROPEXY/	46
36	CYSTOURETHROPEXY/	41
37	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	249
38	(bladder$ adj3 buttress$).tw.	9
39	colpofixation$.tw.	2
40	BURCH COLPOURETHROPEXY/	15
41	MARSHALL MARCHETTI OPERATION/	19
42	burch$.tw.	684
43	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	1076
44	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	60
45	(obturator$ adj3 (shelf$ or shelv$)).tw.	2
46	BLADDER NECK SUSPENSION/	55
47	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	563
48	ligament fixation$.tw.	79
49	STAMEY PEREYRA PROCEDURE/	33
50	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	195
51	VAGINA RECONSTRUCTION/	1090
52	((anterior$ or vagina$) adj3 repair$).tw.	1268
53	COLPORRHAPHY/	35
54	colporraph$.tw.	18
55	COLPOPEXY/	24
56	SACROCOLPOPEXY/	23
57	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	269
58	(pacey$ or kelly$ or kennedy$).tw.	1187
59	"SLING"/	43
60	(sling$ adj3 (procedure$ or operat$)).tw.	570
61	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	735
62	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	1555

63	TENSION FREE VAGINAL TAPE/	299
64	(tension$ adj3 vagina$).tw.	440
65	tvt.tw.	349
66	tot.tw.	1100
67	(slingplast$ or sling plast$).tw.	37
68	ALDRICH SLING OPERATION/	6
69	bologna$.tw.	558
70	ingelman sundberg$.tw.	19
71	or/28-70	9855
72	INJECTION/	8295
73	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	454
74	injectable$.tw.	4295
75	(injection$ adj3 therap$).tw.	3182
76	subtrigonal$.tw.	21
77	BULKING AGENT/	268
78	(bulk$ adj3 agent$).tw.	396
79	contigen.tw.	30
80	exp COLLAGEN/	50237
81	macroplastique$.tw.	39
82	SILICONE/	5312
83	microparticulate$.tw.	399
84	HYALURONIC ACID/	8891
85	hyaluronan therap$.tw.	7
86	act balloon$.tw.	1
87	CARBON/	16810
88	carbon particle$.tw.	623
89	POLITEF/	6231
90	BIOMATERIAL/	7474
91	BLADDER SPHINCTER PROSTHESIS/	272
92	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	416
93	or/72-92	107831
94	BLADDER AUGMENTATION/	105
95	cystoplast$.tw.	439
96	ILEOCYSTOPLASTY/	54
97	ileocystoplast$.tw.	189
98	colocystoplast$.tw.	56
99	ENTEROCYSTOPLASTY/	59
100	enterocystoplast$.tw.	313
101	URETEROCYSTOPLASTY/	16

102	ureterocystoplast$.tw.	58
103	or/94-102	943
104	SACRAL NERVE STIMULATION/	24
105	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	273
106	(implant$ adj3 device$).tw.	4396
107	or/104-106	4664
108	(detrusor$ adj3 myectom$).tw.	7
109	(detrusor$ adj3 myotom$).tw.	6
110	detrusorectom$.tw.	16
111	or/108-110	29
112	BOTULINUM TOXIN/	3979
113	BOTULINUM TOXIN A/	3715
114	botulinum$.tw.	6019
115	botox$.tw.	1629
116	or/112-115	8398
117	CAPSAICIN/	8050
118	CAPSAICIN DERIVATIVE/	169
119	capsaicin$.tw.	6881
120	RESINIFERATOXIN/	511
121	resiniferatoxin$.tw.	371
122	or/117-121	9191
123	URINARY DIVERSION/	2660
124	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	2473
125	or/123-124	3461
126	exp HYSTERECTOMY/	14103
127	((pelvis or pelvic) adj3 (abnormal$ or patholog$)).tw.	1036
128	or/27,71,93,103,107,111,116,122,125-127	202059
129	and/17,128	5192
130	limit 129 to human	4947

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to August Week 3 2005

URINC_surgical_procedures_cinahl_300805

#	Search History	Results
1	URINARY INCONTINENCE/	2941
2	STRESS INCONTINENCE/	545
3	URGE INCONTINENCE/	190

4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1934
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	253
6	OAB.tw.	36
7	((urgency adj frequency) or (frequency adj urgency)).tw.	58
8	((urinary adj frequency) or (urinary adj urgency)).tw.	87
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	44
10	nocturia.tw.	83
11	or/1-10	3891
12	SURGERY, OPERATIVE/	2106
13	MINIMALLY INVASIVE PROCEDURES/	660
14	SURGERY, UROGENITAL/	59
15	SURGERY, GYNECOLOGIC/	296
16	SURGERY, UROLOGIC/	142
17	URINARY TRACT/su [Surgery]	11
18	URETER/su [Surgery]	18
19	URETHRA/su [Surgery]	11
20	VAGINA/su [Surgery]	54
21	BLADDER/su [Surgery]	50
22	LIGAMENTS/su [Surgery]	51
23	((urethra$ or vagina$ or bladder$) adj surger$).tw.	15
24	or/12-23	3380
25	(colposuspension$ or colpo suspension$).tw.	20
26	vesicosuspension$.tw.	0
27	urethrosuspension$.tw.	0
28	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	0
29	colpourethrosuspension$.tw.	0
30	(corner$ adj3 suspension$).tw.	0
31	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	5
32	(bladder$ adj3 buttress$).tw.	0
33	colpofixation$.tw.	0
34	burch$.tw.	40
35	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	198
36	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	3
37	(obturator$ adj3 (shelf$ or shelv$)).tw.	0
38	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	10
39	ligament fixation$.tw.	3
40	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	2
41	((anterior$ or vagina$) adj3 repair$).tw.	110
42	colporraph$.tw.	1
43	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	18

44	(pacey$ or kelly$ or kennedy$).tw.	412
45	SURGICAL MESH/	50
46	SLINGS/	58
47	TAPES/	100
48	(sling$ adj3 (procedure$ or operat$)).tw.	20
49	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	48
50	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	76
51	(tension$ adj3 vagina$).tw.	38
52	tvt.tw.	10
53	tot.tw.	39
54	(slingplast$ or sling plast$).tw.	0
55	bologna$.tw.	26
56	ingelman sundberg$.tw.	1
57	or/25-56	1145
58	"PROSTHESES AND IMPLANTS"/	1330
59	INJECTIONS/	1055
60	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	17
61	injectable$.tw.	290
62	(injection$ adj3 therap$).tw.	191
63	subtrigonal$.tw.	1
64	(bulk$ adj3 agent$).tw.	15
65	contigen.tw.	0
66	COLLAGEN/	519
67	macroplastique$.tw.	2
68	SILICONES/	354
69	microparticulate$.tw.	1
70	HYALURONIC ACID/	174
71	hyaluronan therap$.tw.	1
72	act balloon$.tw.	0
73	CARBON/	37
74	carbon particle$.tw.	1
75	POLYTETRAFLUOROETHYLENE/	90
76	BIOCOMPATIBLE MATERIALS/	293
77	URINARY SPHINCTER, ARTIFICIAL/	11
78	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	15
79	or/58-78	4045

80	cystoplast$.tw.	5
81	ileocystoplast$.tw.	2
82	colocystoplast$.tw.	0
83	enterocystoplast$.tw.	6
84	ureterocystoplast$.tw.	0
85	or/80-84	11
86	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	13
87	(implant$ adj3 device$).tw.	342
88	or/86-87	354
89	(detrusor$ adj3 myectom$).tw.	0
90	(detrusor$ adj3 myotom$).tw.	0
91	detrusorectom$.tw.	0
92	or/89-91	0
93	BOTULINUM TOXINS/	677
94	botulinum$.tw.	460
95	botox$.tw.	137
96	or/93-95	732
97	CAPSAICIN/	136
98	capsaicin$.tw.	87
99	resiniferatoxin$.tw.	1
100	or/97-99	159
101	URINARY DIVERSION/	213
102	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	85
103	or/101-102	230
104	exp HYSTERECTOMY/	861
105	PELVIS/ab, pa [Abnormalities, Pathology]	59
106	or/24,57,79,85,88,92,96,100,103-105	10549
107	and/11,106	253
108	ANIMALS/ or ANIMAL STUDIES/	3476
109	107 not 108	253

British Nursing Index
1985 to August 2005

URINC_surgical_procedures_bni_300805

#	Search History	Results
1	INCONTINENCE/	1682
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	440

3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	24
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	((urinary adj frequency) or (urinary adj urgency)).tw.	3
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
8	nocturia.tw.	8
9	or/1-8	1725
10	SURGERY/	699
11	SURGERY- OPERATIVE/	350
12	((urethra$ or vagina$ or bladder$) adj surger$).tw.	1
13	or/10-12	1050
14	(colposuspension$ or colpo suspension$).tw.	0
15	vesicosuspension$.tw.	0
16	urethrosuspension$.tw.	0
17	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	0
18	colpourethrosuspension$.tw.	0
19	(corner$ adj3 suspension$).tw.	0
20	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	1
21	(bladder$ adj3 buttress$).tw.	0
22	colpofixation$.tw.	0
23	burch$.tw.	0
24	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	4
25	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	1
26	(obturator$ adj3 (shelf$ or shelv$)).tw.	0
27	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	1
28	ligament fixation$.tw.	1
29	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	0
30	((anterior$ or vagina$) adj3 repair$).tw.	3
31	colporraph$.tw.	0
32	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	0
33	(pacey$ or kelly$ or kennedy$).tw.	15
34	(sling$ adj3 (procedure$ or operat$)).tw.	0
35	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	2
36	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	0
37	(tension$ adj3 vagina$).tw.	0
38	tvt.tw.	0
39	tot.tw.	1

40	(slingplast$ or sling plast$).tw.	0
41	bologna$.tw.	0
42	ingelman sundberg$.tw.	0
43	or/14-42	27
44	PROSTHESES/	131
45	INJECTIONS/	145
46	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	0
47	injectable$.tw.	15
48	(injection$ adj3 therap$).tw.	2
49	subtrigonal$.tw.	0
50	(bulk$ adj3 agent$).tw.	0
51	contigen.tw.	0
52	collagen.tw.	7
53	macroplastique$.tw.	0
54	silicone$.tw.	33
55	microparticulate$.tw.	0
56	(hyaluron$ adj3 (acid or therap$)).tw.	6
57	act balloon$.tw.	0
58	carbon.tw.	61
59	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	4
60	or/44-59	394
61	cystoplast$.tw.	0
62	ileocystoplast$.tw.	0
63	colocystoplast$.tw.	0
64	enterocystoplast$.tw.	0
65	ureterocystoplast$.tw.	0
66	or/61-65	0
67	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	2
68	(implant$ adj3 device$).tw.	18
69	or/67-68	20
70	(detrusor$ adj3 myectom$).tw.	0
71	(detrusor$ adj3 myotom$).tw.	0
72	detrusorectom$.tw.	0
73	or/70-72	0
74	botulinum$.tw.	11
75	botox$.tw.	6
76	or/74-75	14
77	capsaicin$.tw.	4
78	resiniferatoxin$.tw.	0

79	or/77-78	4
80	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	9
81	HYSTERECTOMY/	86
82	((pelvis or pelvic) adj3 (abnormal$ or patholog$)).tw.	0
83	or/13,43,60,66,69,73,76,79-82	1584
84	and/9,83	20

Ovid MEDLINE

1966 to October Week 1 2005

URINC_surgical_procedures_economic_specific_medline_191005

#	Search History	Results
1	ECONOMICS/	24015
2	"COSTS AND COST ANALYSIS"/	33707
3	COST ALLOCATION/	1736
4	COST-BENEFIT ANALYSIS/	36150
5	COST CONTROL/	16508
6	COST SAVINGS/	5305
7	COST OF ILLNESS/	7377
8	COST SHARING/	1089
9	HEALTH CARE COSTS/	13119
10	DIRECT SERVICE COSTS/	731
11	DRUG COSTS/	6962
12	EMPLOYER HEALTH COSTS/	892
13	HOSPITAL COSTS/	4762
14	HEALTH RESOURCES/	5419
15	"HEALTH SERVICES NEEDS AND DEMAND"/	21400
16	HEALTH PRIORITIES/	5661
17	HEALTH EXPENDITURES/	8663
18	CAPITAL EXPENDITURES/	1750
19	FINANCIAL MANAGEMENT/	13846
20	FINANCIAL MANAGEMENT, HOSPITAL/	6237
21	QUALITY-ADJUSTED LIFE YEARS/	2300
22	"DEDUCTIBLES AND COINSURANCE"/	1024
23	MEDICAL SAVINGS ACCOUNTS/	200
24	ECONOMICS, HOSPITAL/	7656
25	ECONOMICS, MEDICAL/	5230
26	ECONOMICS, NURSING/	3667

27	ECONOMICS, PHARMACEUTICAL/	1533
28	MODELS, ECONOMIC/	2307
29	MODELS, ECONOMETRIC/	2103
30	RESOURCE ALLOCATION/	5225
31	HEALTH CARE RATIONING/	8197
32	"FEES AND CHARGES"/	6748
33	BUDGETS/	6843
34	VALUE OF LIFE/	4554
35	(financ$ or fiscal$ or funding).ti.	11111
36	(QALY$ or life?year$).ti.	166
37	(econom$ or cost$).ti.	64598
38	pharmacoeconomic$.ti.	906
39	or/1-38	237332
40	URINARY INCONTINENCE/	12067
41	URINARY INCONTINENCE, STRESS/	5471
42	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12141
43	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1706
44	OAB.tw.	166
45	((urgency adj frequency) or (frequency adj urgency)).tw.	656
46	((urinary adj frequency) or (urinary adj urgency)).tw.	794
47	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1441
48	nocturia.tw.	853
49	or/40-48	21537
50	SURGICAL PROCEDURES, OPERATIVE/	23129
51	SURGICAL PROCEDURES, MINIMALLY INVASIVE/	6083
52	UROGENITAL SURGICAL PROCEDURES/	293
53	GYNECOLOGIC SURGICAL PROCEDURES/	2017
54	UROLOGIC SURGICAL PROCEDURES/	1912
55	UROGENITAL SYSTEM/su [Surgery]	345
56	URINARY TRACT/su [Surgery]	451
57	URETER/su [Surgery]	5331
58	URETHRA/su [Surgery]	4314
59	VAGINA/su [Surgery]	3089
60	BLADDER/su [Surgery]	6236
61	LIGAMENTS/su [Surgery]	1018
62	((urethra$ or vagina$ or bladder$) adj surger$).tw.	492
63	or/50-62	50428
64	(colposuspension$ or colpo suspension$).tw.	589
65	vesicosuspension$.tw.	1
66	urethrosuspension$.tw.	3

67	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	63
68	colpourethrosuspension$.tw.	2
69	(corner$ adj3 suspension$).tw.	15
70	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	285
71	(bladder$ adj3 buttress$).tw.	9
72	colpofixation$.tw.	4
73	burch$.tw.	875
74	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	1562
75	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	68
76	(obturator$ adj3 (shelf$ or shelv$)).tw.	3
77	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	636
78	ligament fixation$.tw.	79
79	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	210
80	((anterior$ or vagina$) adj3 repair$).tw.	1442
81	colporraph$.tw.	16
82	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	287
83	(pacey$ or kelly$ or kennedy$).tw.	1985
84	SURGICAL MESH/	4694
85	(sling$ adj3 (procedure$ or operat$)).tw.	619
86	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	831
87	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	1666
88	(tension$ adj3 vagina$).tw.	398
89	tvt.tw.	382
90	tot.tw.	559
91	(slingplast$ or sling plast$).tw.	40
92	bologna$.tw.	840
93	ingelman sundberg$.tw.	37
94	or/64-93	14521
95	"PROSTHESES AND IMPLANTS"/	25960
96	INJECTIONS/	22643
97	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	488
98	injectable$.tw.	4677
99	(injection$ adj3 therap$).tw.	3254
100	subtrigonal$.tw.	27
101	(bulk$ adj3 agent$).tw.	354
102	contigen.tw.	20

103	COLLAGEN/	58701
104	macroplastique$.tw.	38
105	exp SILICONES/	15656
106	microparticulate$.tw.	418
107	HYALURONIC ACID/	8636
108	hyaluronan therap$.tw.	6
109	act balloon$.tw.	1
110	CARBON/	13979
111	carbon particle$.tw.	614
112	POLYTETRAFLUOROETHYLENE/	7654
113	BIOCOMPATIBLE MATERIALS/	21742
114	URINARY SPHINCTER, ARTIFICIAL/	298
115	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	489
116	or/95-115	168572
117	cystoplast$.tw.	538
118	ileocystoplast$.tw.	256
119	colocystoplast$.tw.	93
120	enterocystoplast$.tw.	389
121	ureterocystoplast$.tw.	57
122	or/117-121	1129
123	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	273
124	(implant$ adj3 device$).tw.	4716
125	or/123-124	4979
126	(detrusor$ adj3 myectom$).tw.	6
127	(detrusor$ adj3 myotom$).tw.	7
128	detrusorectom$.tw.	12
129	or/126-128	25
130	exp BOTULINUM TOXINS/	6293
131	botulinum$.tw.	6753
132	botox$.tw.	482
133	or/130-132	7964
134	CAPSAICIN/	5833
135	capsaicin$.tw.	6845
136	resiniferatoxin$.tw.	365
137	or/134-136	7479
138	URINARY DIVERSION/	6435
139	URINARY RESERVOIRS, CONTINENT/	1270
140	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	3401
141	or/138-140	8188
142	exp HYSTERECTOMY/	16218

143	PELVIS/ab, pa [Abnormalities, Pathology]	766
144	or/63,94,116,122,125,129,133,137,141-143	267817
145	and/49,144	6296
146	and/39,145	41
147	limit 146 to humans	41

EMBASE

1980 to 2005 Week 42

URINC_surgical_procedures_economic_specific_embase_191005

#	Search History	Results
1	ECONOMICS/	4693
2	HEALTH ECONOMICS/	7835
3	ECONOMIC EVALUATION/	2680
4	COST BENEFIT ANALYSIS/	21676
5	COST CONTROL/	13145
6	COST EFFECTIVENESS ANALYSIS/	40007
7	COST MINIMIZATION ANALYSIS/	873
8	COST OF ILLNESS/	2713
9	COST UTILITY ANALYSIS/	1433
10	COST/	17781
11	HEALTH CARE COST/	43514
12	DRUG COST/	24693
13	HEALTH CARE FINANCING/	7742
14	HOSPITAL COST/	4743
15	SOCIOECONOMICS/	20943
16	ECONOMIC ASPECT/	63700
17	QUALITY-ADJUSTED LIFE YEARS/	2136
18	FINANCIAL MANAGEMENT/	16393
19	PHARMACOECONOMICS/	846
20	RESOURCE ALLOCATION/	5545
21	(financ$ or fiscal$ or funding).ti.	5099
22	(QALY$ or life?year$).ti.	119
23	(econom$ or cost$).ti.	42036
24	pharmacoeconomic$.ti.	1072
25	or/1-24	231528
26	URINE INCONTINENCE/	10096
27	STRESS INCONTINENCE/	4809

28	URGE INCONTINENCE/	1585
29	MIXED INCONTINENCE/	74
30	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	10020
31	OVERACTIVE BLADDER/	609
32	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1641
33	OAB.tw.	176
34	URINARY URGENCY/	563
35	URINARY FREQUENCY/	706
36	((urgency adj frequency) or (frequency adj urgency)).tw.	611
37	((urinary adj frequency) or (urinary adj urgency)).tw.	734
38	DETRUSOR DYSSYNERGIA/	1799
39	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1435
40	NOCTURIA/	1074
41	nocturia.tw.	805
42	or/26-41	19015
43	SURGERY/	34685
44	MINIMALLY INVASIVE SURGERY/	5995
45	UROLOGIC SURGERY/	1958
46	GYNECOLOGIC SURGERY/	3892
47	URINARY TRACT SURGERY/	252
48	BLADDER SURGERY/	946
49	URETER SURGERY/	468
50	URETHRA SURGERY/	494
51	((urethra$ or vagina$ or bladder$) adj surger$).tw.	395
52	or/43-51	48413
53	COLPOSUSPENSION/	584
54	(colposuspension$ or colpo suspension$).tw.	576
55	vesicosuspension$.tw.	1
56	urethrosuspension$.tw.	1
57	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	36
58	colpourethrosuspension$.tw.	2
59	(corner$ adj3 suspension$).tw.	15
60	URETHROPEXY/	46
61	CYSTOURETHROPEXY/	41
62	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	249
63	(bladder$ adj3 buttress$).tw.	9
64	colpofixation$.tw.	2
65	BURCH COLPOURETHROPEXY/	15
66	MARSHALL MARCHETTI OPERATION/	19
67	burch$.tw.	691

68	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	1088
69	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	61
70	(obturator$ adj3 (shelf$ or shelv$)).tw.	2
71	BLADDER NECK SUSPENSION/	55
72	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	564
73	ligament fixation$.tw.	81
74	STAMEY PEREYRA PROCEDURE/	33
75	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	195
76	VAGINA RECONSTRUCTION/	1108
77	((anterior$ or vagina$) adj3 repair$).tw.	1275
78	COLPORRHAPHY/	37
79	colporraph$.tw.	18
80	COLPOPEXY/	25
81	SACROCOLPOPEXY/	24
82	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	273
83	(pacey$ or kelly$ or kennedy$).tw.	1191
84	"SLING"/	43
85	(sling$ adj3 (procedure$ or operat$)).tw.	572
86	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	745
87	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	1577
88	TENSION FREE VAGINAL TAPE/	316
89	(tension$ adj3 vagina$).tw.	453
90	tvt.tw.	365
91	tot.tw.	1105
92	(slingplast$ or sling plast$).tw.	38
93	ALDRICH SLING OPERATION/	6
94	bologna$.tw.	565
95	ingelman sundberg$.tw.	19
96	or/53-95	9950
97	INJECTION/	8465
98	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	459
99	injectable$.tw.	4343
100	(injection$ adj3 therap$).tw.	3220
101	subtrigonal$.tw.	21
102	BULKING AGENT/	275
103	(bulk$ adj3 agent$).tw.	402

104	contigen.tw.	30
105	exp COLLAGEN/	50873
106	macroplastique$.tw.	39
107	SILICONE/	5350
108	microparticulate$.tw.	402
109	HYALURONIC ACID/	8998
110	hyaluronan therap$.tw.	8
111	act balloon$.tw.	1
112	CARBON/	17208
113	carbon particle$.tw.	629
114	POLITEF/	6304
115	BIOMATERIAL/	7606
116	BLADDER SPHINCTER PROSTHESIS/	276
117	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	416
118	or/97-117	109388
119	BLADDER AUGMENTATION/	105
120	cystoplast$.tw.	439
121	ILEOCYSTOPLASTY/	54
122	ileocystoplast$.tw.	189
123	colocystoplast$.tw.	56
124	ENTEROCYSTOPLASTY/	60
125	enterocystoplast$.tw.	315
126	URETEROCYSTOPLASTY/	16
127	ureterocystoplast$.tw.	58
128	or/119-127	945
129	SACRAL NERVE STIMULATION/	24
130	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	274
131	(implant$ adj3 device$).tw.	4460
132	or/129-131	4729
133	(detrusor$ adj3 myectom$).tw.	8
134	(detrusor$ adj3 myotom$).tw.	6
135	detrusorectom$.tw.	16
136	or/133-135	30
137	BOTULINUM TOXIN/	4033
138	BOTULINUM TOXIN A/	3780
139	botulinum$.tw.	6091
140	botox$.tw.	1654
141	or/137-140	8512
142	CAPSAICIN/	8137
143	CAPSAICIN DERIVATIVE/	176

144	capsaicin$.tw.	6949
145	RESINIFERATOXIN/	521
146	resiniferatoxin$.tw.	377
147	or/142-146	9292
148	URINARY DIVERSION/	2685
149	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	2489
150	or/148-149	3490
151	exp HYSTERECTOMY/	14266
152	((pelvis or pelvic) adj3 (abnormal$ or patholog$)).tw.	1041
153	or/52,96,118,128,132,136,141,147,150-152	204376
154	and/42,153	5269
155	and/25,154	143
156	limit 155 to human	141

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to October Week 2 2005

URINC_surgical_procedures_economic_specific_cinahl_191005

#	Search History	Results
1	ECONOMICS/	568
2	"COSTS AND COST ANALYSIS"/	3304
3	COST BENEFIT ANALYSIS/	4401
4	COST CONTROL/	2114
5	COST SAVINGS/	2781
6	COST OF ILLNESS/	971
7	HEALTH CARE COSTS/	5470
8	ECONOMIC ASPECTS OF ILLNESS/	971
9	ECONOMICS, PHARMACEUTICAL/	718
10	HEALTH CARE FINANCING/	2540
11	FINANCIAL MANAGEMENT/	2780
12	HOSPITAL COST/	834
13	SOCIOECONOMIC FACTORS/	9945
14	HEALTH RESOURCE ALLOCATION/	2358
15	(financ$ or fiscal$ or funding).ti.	3792
16	(QALY$ or life?year$).ti.	8
17	(econom$ or cost$).ti.	11523
18	pharmacoeconomic$.ti.	93
19	or/1-18	41637

20	URINARY INCONTINENCE/	2991
21	STRESS INCONTINENCE/	554
22	URGE INCONTINENCE/	197
23	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1971
24	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	269
25	OAB.tw.	42
26	((urgency adj frequency) or (frequency adj urgency)).tw.	60
27	((urinary adj frequency) or (urinary adj urgency)).tw.	89
28	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	46
29	nocturia.tw.	88
30	or/20-29	3967
31	SURGERY, OPERATIVE/	2151
32	MINIMALLY INVASIVE PROCEDURES/	685
33	SURGERY, UROGENITAL/	61
34	SURGERY, GYNECOLOGIC/	305
35	SURGERY, UROLOGIC/	145
36	URINARY TRACT/su [Surgery]	12
37	URETER/su [Surgery]	18
38	URETHRA/su [Surgery]	11
39	VAGINA/su [Surgery]	56
40	BLADDER/su [Surgery]	52
41	LIGAMENTS/su [Surgery]	53
42	((urethra$ or vagina$ or bladder$) adj surger$).tw.	16
43	or/31-42	3470
44	(colposuspension$ or colpo suspension$).tw.	20
45	vesicosuspension$.tw.	0
46	urethrosuspension$.tw.	0
47	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	0
48	colpourethrosuspension$.tw.	0
49	(corner$ adj3 suspension$).tw.	0
50	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	5
51	(bladder$ adj3 buttress$).tw.	0
52	colpofixation$.tw.	0
53	burch$.tw.	40
54	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	206
55	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	3
56	(obturator$ adj3 (shelf$ or shelv$)).tw.	0
57	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	10
58	ligament fixation$.tw.	4
59	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	2

60	((anterior$ or vagina$) adj3 repair$).tw.	113
61	colporraph$.tw.	1
62	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	18
63	(pacey$ or kelly$ or kennedy$).tw.	426
64	SURGICAL MESH/	50
65	SLINGS/	59
66	TAPES/	101
67	(sling$ adj3 (procedure$ or operat$)).tw.	20
68	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	50
69	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	79
70	(tension$ adj3 vagina$).tw.	40
71	tvt.tw.	11
72	tot.tw.	40
73	(slingplast$ or sling plast$).tw.	0
74	bologna$.tw.	27
75	ingelman sundberg$.tw.	1
76	or/44-75	1178
77	"PROSTHESES AND IMPLANTS"/	1371
78	INJECTIONS/	1079
79	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	17
80	injectable$.tw.	303
81	(injection$ adj3 therap$).tw.	198
82	subtrigonal$.tw.	1
83	(bulk$ adj3 agent$).tw.	15
84	contigen.tw.	0
85	COLLAGEN/	534
86	macroplastique$.tw.	2
87	SILICONES/	359
88	microparticulate$.tw.	1
89	HYALURONIC ACID/	181
90	hyaluronan therap$.tw.	1
91	act balloon$.tw.	0
92	CARBON/	38
93	carbon particle$.tw.	1
94	POLYTETRAFLUOROETHYLENE/	94
95	BIOCOMPATIBLE MATERIALS/	303

96	URINARY SPHINCTER, ARTIFICIAL/	11
97	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	15
98	or/77-97	4161
99	cystoplast$.tw.	6
100	ileocystoplast$.tw.	2
101	colocystoplast$.tw.	0
102	enterocystoplast$.tw.	6
103	ureterocystoplast$.tw.	0
104	or/99-103	12
105	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	13
106	(implant$ adj3 device$).tw.	353
107	or/105-106	365
108	(detrusor$ adj3 myectom$).tw.	0
109	(detrusor$ adj3 myotom$).tw.	0
110	detrusorectom$.tw.	0
111	or/108-110	0
112	BOTULINUM TOXINS/	693
113	botulinum$.tw.	468
114	botox$.tw.	141
115	or/112-114	751
116	CAPSAICIN/	139
117	capsaicin$.tw.	89
118	resiniferatoxin$.tw.	2
119	or/116-118	163
120	URINARY DIVERSION/	217
121	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	86
122	or/120-121	234
123	exp HYSTERECTOMY/	881
124	PELVIS/ab, pa [Abnormalities, Pathology]	60
125	or/43,76,98,104,107,111,115,119,122-124	10829
126	and/30,125	260
127	and/19,126	6

Ovid MEDLINE

1966 to December Week 4 2005

URINC_hydroxyapatite_medline_100106

#	Search History	Results
1	URINARY INCONTINENCE/	12206
2	URINARY INCONTINENCE, STRESS/	5563
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12110
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1306
5	OAB.tw.	176
6	((urgency adj frequency) or (frequency adj urgency)).tw.	431
7	((urinary adj frequency) or (urinary adj urgency)).tw.	809
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1460
9	nocturia.tw.	877
10	or/1-9	21562
11	exp HYDROXYAPATITES/	10015
12	hydroxy?apatite$.tw.	11893
13	hydroxy$ apatite$.tw.	154
14	uryx$.tw.	2
15	or/11-14	15438
16	and/10,15	5

EMBASE

1980 to 2006 Week 01

URINC_hydroxyapatite_embase_100106

#	Search History	Results
1	URINE INCONTINENCE/	10361
2	STRESS INCONTINENCE/	4965
3	URGE INCONTINENCE/	1646
4	MIXED INCONTINENCE/	84
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	10283
6	OVERACTIVE BLADDER/	694
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1712
8	OAB.tw.	191
9	URINARY URGENCY/	628
10	URINARY FREQUENCY/	782
11	((urgency adj frequency) or (frequency adj urgency)).tw.	627

12	((urinary adj frequency) or (urinary adj urgency)).tw.	760
13	DETRUSOR DYSSYNERGIA/	1843
14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1477
15	NOCTURIA/	1104
16	nocturia.tw.	825
17	or/1-16	19582
18	HYDROXYAPATITE/	6436
19	hydroxy?apatite$.tw.	8518
20	hydroxy$ apatite$.tw.	137
21	uryx$.tw.	2
22	or/18-21	9773
23	and/17,22	13
24	limit 23 to human	13

Ovid MEDLINE
1966 to June Week 4 2006

URINC_uretex_tegress_uryx_medline_120706

#	Search History	Results
1	uretex$.af.	4
2	tegress$.af.	1
3	uryx$.af.	2
4	or/1-3	7
5	limit 4 to humans	4

EMBASE
1980 to 2006 Week 27

URINC_uretex_tegress_uryx_embase_120706

#	Search History	Results
1	uretex$.af.	1
2	tegress$.af.	1
3	uryx$.af.	3
4	or/1-3	5
5	limit 4 to human	3

Ovid MEDLINE

1966 to November Week 3 2005

URINC_surgical_competencies_medline_151205

#	Search History	Results
1	URINARY INCONTINENCE/	12182
2	URINARY INCONTINENCE, STRESS/	5518
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	12256
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1756
5	OAB.tw.	185
6	((urgency adj frequency) or (frequency adj urgency)).tw.	670
7	((urinary adj frequency) or (urinary adj urgency)).tw.	807
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1465
9	nocturia.tw.	869
10	or/1-9	21752
11	UROGENITAL SURGICAL PROCEDURES/	299
12	GYNECOLOGIC SURGICAL PROCEDURES/	2050
13	UROLOGIC SURGICAL PROCEDURES/	1977
14	UROGENITAL SYSTEM/su [Surgery]	345
15	URINARY TRACT/su [Surgery]	454
16	URETER/su [Surgery]	5363
17	URETHRA/su [Surgery]	4335
18	VAGINA/su [Surgery]	3105
19	BLADDER/su [Surgery]	6251
20	LIGAMENTS/su [Surgery]	1023
21	((urethra$ or vagina$ or bladder$) adj surger$).tw.	498
22	or/11-21	21896
23	(colposuspension$ or colpo suspension$).tw.	592
24	vesicosuspension$.tw.	1
25	urethrosuspension$.tw.	3
26	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	63
27	colpourethrosuspension$.tw.	2
28	(corner$ adj3 suspension$).tw.	15
29	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	286
30	(bladder$ adj3 buttress$).tw.	9
31	colpofixation$.tw.	4
32	burch$.tw.	878
33	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	1566
34	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	68

35	(obturator$ adj3 (shelf$ or shelv$)).tw.	3
36	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	641
37	ligament fixation$.tw.	81
38	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	210
39	((anterior$ or vagina$) adj3 repair$).tw.	1453
40	colporraph$.tw.	16
41	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	289
42	(pacey$ or kelly$ or kennedy$).tw.	1997
43	SURGICAL MESH/	4741
44	(sling$ adj3 (procedure$ or operat$)).tw.	626
45	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	840
46	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	1696
47	(tension$ adj3 vagina$).tw.	409
48	tvt.tw.	392
49	tot.tw.	565
50	(slingplast$ or sling plast$).tw.	42
51	bologna$.tw.	848
52	ingelman sundberg$.tw.	37
53	or/23-52	14638
54	"PROSTHESES AND IMPLANTS"/	26083
55	INJECTIONS/	22789
56	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	491
57	injectable$.tw.	4718
58	(injection$ adj3 therap$).tw.	3290
59	subtrigonal$.tw.	27
60	(bulk$ adj3 agent$).tw.	359
61	contigen.tw.	20
62	COLLAGEN/	59270
63	macroplastique$.tw.	39
64	exp SILICONES/	15735
65	microparticulate$.tw.	422
66	HYALURONIC ACID/	8733
67	hyaluronan therap$.tw.	6
68	act balloon$.tw.	1
69	CARBON/	14208
70	carbon particle$.tw.	616

71	POLYTETRAFLUOROETHYLENE/	7692
72	BIOCOMPATIBLE MATERIALS/	22098
73	URINARY SPHINCTER, ARTIFICIAL/	303
74	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	491
75	or/54-74	170185
76	cystoplast$.tw.	538
77	ileocystoplast$.tw.	260
78	colocystoplast$.tw.	94
79	enterocystoplast$.tw.	393
80	ureterocystoplast$.tw.	58
81	or/76-80	1137
82	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	275
83	(implant$ adj3 device$).tw.	4761
84	or/82-83	5026
85	(detrusor$ adj3 myectom$).tw.	6
86	(detrusor$ adj3 myotom$).tw.	8
87	detrusorectom$.tw.	12
88	or/85-87	26
89	exp BOTULINUM TOXINS/	6366
90	botulinum$.tw.	6835
91	botox$.tw.	488
92	or/89-91	8052
93	CAPSAICIN/	5873
94	capsaicin$.tw.	6899
95	resiniferatoxin$.tw.	371
96	or/93-95	7541
97	URINARY DIVERSION/	6462
98	URINARY RESERVOIRS, CONTINENT/	1287
99	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	3433
100	or/97-99	8234
101	UTERINE PROLAPSE/	2732
102	((vagina$ or uter$) adj3 prolaps$).tw.	1385
103	or/101-102	3085
104	or/22,53,75,81,84,88,92,96,100,103	228352
105	or/10,104	243623
106	CLINICAL COMPETENCE/	31869
107	PROFESSIONAL COMPETENCE/	11196
108	((clinical$ or professional$ or surgical$) adj3 competenc$).tw.	2324
109	PROFESSIONAL PRACTICE/	11152
110	PHYSICIAN'S PRACTICE PATTERNS/	17832

111	EDUCATION, CONTINUING/	5400
112	EDUCATION, MEDICAL, CONTINUING/	14380
113	EDUCATION, PROFESSIONAL/	732
114	EDUCATION, PROFESSIONAL, RETRAINING/	893
115	EDUCATION, MEDICAL/	29897
116	(training adj3 standard$).tw.	1349
117	(professional$ adj3 (training$ or education$ or development$)).tw.	8955
118	(volume$ adj3 outcome$).tw.	1033
119	((surg$ or practice or case or hospital$) adj1 volume$).tw.	1319
120	MEDICAL AUDIT/	9147
121	GUIDELINE ADHERENCE/	6544
122	QUALITY ASSURANCE, HEALTH CARE/	30524
123	PEER REVIEW/	4948
124	PEER REVIEW, HEALTH CARE/	921
125	BENCHMARKING/	4480
126	(audit$ adj3 standard$).tw.	576
127	(quality adj3 assuranc$).tw.	11687
128	or/106-127	178442
129	and/105,128	915

EMBASE

1980 to 2005 Week 50

URINC_surgical_competencies_embase_151205

#	Search History	Results
1	URINE INCONTINENCE/	10278
2	STRESS INCONTINENCE/	4914
3	URGE INCONTINENCE/	1626
4	MIXED INCONTINENCE/	81
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	10194
6	OVERACTIVE BLADDER/	668
7	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	1691
8	OAB.tw.	186
9	URINARY URGENCY/	607
10	URINARY FREQUENCY/	757
11	((urgency adj frequency) or (frequency adj urgency)).tw.	623
12	((urinary adj frequency) or (urinary adj urgency)).tw.	749
13	DETRUSOR DYSSYNERGIA/	1826

14	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1464
15	NOCTURIA/	1092
16	nocturia.tw.	816
17	or/1-16	19395
18	UROLOGIC SURGERY/	1990
19	GYNECOLOGIC SURGERY/	3958
20	URINARY TRACT SURGERY/	257
21	BLADDER SURGERY/	968
22	URETER SURGERY/	480
23	URETHRA SURGERY/	505
24	((urethra$ or vagina$ or bladder$) adj surger$).tw.	398
25	or/18-24	8128
26	COLPOSUSPENSION/	598
27	(colposuspension$ or colpo suspension$).tw.	583
28	vesicosuspension$.tw.	1
29	urethrosuspension$.tw.	1
30	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	36
31	colpourethrosuspension$.tw.	2
32	(corner$ adj3 suspension$).tw.	15
33	URETHROPEXY/	47
34	CYSTOURETHROPEXY/	41
35	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	249
36	(bladder$ adj3 buttress$).tw.	9
37	colpofixation$.tw.	2
38	BURCH COLPOURETHROPEXY/	15
39	MARSHALL MARCHETTI OPERATION/	19
40	burch$.tw.	703
41	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	1098
42	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	62
43	(obturator$ adj3 (shelf$ or shelv$)).tw.	2
44	BLADDER NECK SUSPENSION/	55
45	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	572
46	ligament fixation$.tw.	83
47	STAMEY PEREYRA PROCEDURE/	33
48	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	196
49	VAGINA RECONSTRUCTION/	1127
50	((anterior$ or vagina$) adj3 repair$).tw.	1291
51	COLPORRHAPHY/	38
52	colporraph$.tw.	18
53	COLPOPEXY/	25

54	SACROCOLPOPEXY/	26
55	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	278
56	(pacey$ or kelly$ or kennedy$).tw.	1200
57	"SLING"/	43
58	(sling$ adj3 (procedure$ or operat$)).tw.	587
59	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	768
60	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	1637
61	TENSION FREE VAGINAL TAPE/	348
62	(tension$ adj3 vagina$).tw.	480
63	tvt.tw.	385
64	tot.tw.	1114
65	(slingplast$ or sling plast$).tw.	45
66	ALDRICH SLING OPERATION/	6
67	bologna$.tw.	573
68	ingelman sundberg$.tw.	19
69	or/26-68	10099
70	INJECTION/	8679
71	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	469
72	injectable$.tw.	4417
73	(injection$ adj3 therap$).tw.	3261
74	subtrigonal$.tw.	21
75	BULKING AGENT/	288
76	(bulk$ adj3 agent$).tw.	409
77	contigen.tw.	30
78	exp COLLAGEN/	51657
79	macroplastique$.tw.	40
80	SILICONE/	5405
81	microparticulate$.tw.	406
82	HYALURONIC ACID/	9150
83	hyaluronan therap$.tw.	9
84	act balloon$.tw.	1
85	CARBON/	17620
86	carbon particle$.tw.	633
87	POLITEF/	6400
88	BIOMATERIAL/	7762
89	BLADDER SPHINCTER PROSTHESIS/	281

90	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	419
91	or/70-90	111296
92	BLADDER AUGMENTATION/	106
93	cystoplast$.tw.	441
94	ILEOCYSTOPLASTY/	55
95	ileocystoplast$.tw.	193
96	colocystoplast$.tw.	57
97	ENTEROCYSTOPLASTY/	62
98	enterocystoplast$.tw.	317
99	URETEROCYSTOPLASTY/	16
100	ureterocystoplast$.tw.	59
101	or/92-100	955
102	SACRAL NERVE STIMULATION/	24
103	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	280
104	(implant$ adj3 device$).tw.	4537
105	or/102-104	4812
106	(detrusor$ adj3 myectom$).tw.	8
107	(detrusor$ adj3 myotom$).tw.	6
108	detrusorectom$.tw.	16
109	or/106-108	30
110	BOTULINUM TOXIN/	4120
111	BOTULINUM TOXIN A/	3890
112	botulinum$.tw.	6215
113	botox$.tw.	1695
114	or/110-113	8711
115	CAPSAICIN/	8247
116	CAPSAICIN DERIVATIVE/	180
117	capsaicin$.tw.	7026
118	RESINIFERATOXIN/	537
119	resiniferatoxin$.tw.	386
120	or/115-119	9425
121	URINARY DIVERSION/	2717
122	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	2506
123	or/121-122	3526
124	exp PELVIC ORGAN PROLAPSE/	1972
125	((vagina$ or uter$) adj3 prolaps$).tw.	1085
126	or/124-125	2436
127	or/25,69,91,101,105,109,114,120,123,126	155081
128	or/17,127	169206
129	COMPETENCE/	12742

130	((clinical$ or professional$ or surgical$) adj3 competenc$).tw.	1438
131	MEDICAL EDUCATION/	47977
132	CONTINUING EDUCATION/	11925
133	VOCATIONAL EDUCATION/	3096
134	SURGICAL TRAINING/	4452
135	PROFESSIONAL STANDARD/	3382
136	(training adj3 standard$).tw.	1222
137	(professional$ adj3 (training$ or education$ or development$)).tw.	5392
138	(volume$ adj3 outcome$).tw.	1030
139	((surg$ or practice or case or hospital$) adj1 volume$).tw.	1160
140	MEDICAL AUDIT/	9299
141	QUALITY CONTROL/	41345
142	PEER REVIEW/	6376
143	(audit$ adj3 standard$).tw.	535
144	(quality adj3 assuranc$).tw.	8757
145	or/129-144	132692
146	and/128,145	1282

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to December Week 2 2005

URINC_surgical_competencies_cinahl_151205

#	**Search History**	**Results**
1	URINARY INCONTINENCE/	3031
2	STRESS INCONTINENCE/	570
3	URGE INCONTINENCE/	207
4	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	1997
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	279
6	OAB.tw.	44
7	((urgency adj frequency) or (frequency adj urgency)).tw.	60
8	((urinary adj frequency) or (urinary adj urgency)).tw.	90
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	47
10	nocturia.tw.	88
11	or/1-10	4031
12	SURGERY, UROGENITAL/	68
13	SURGERY, GYNECOLOGIC/	312
14	SURGERY, UROLOGIC/	154
15	URINARY TRACT/su [Surgery]	12

16	URETER/su [Surgery]	19
17	URETHRA/su [Surgery]	11
18	VAGINA/su [Surgery]	60
19	BLADDER/su [Surgery]	52
20	LIGAMENTS/su [Surgery]	53
21	((urethra$ or vagina$ or bladder$) adj surger$).tw.	17
22	or/12-21	707
23	(colposuspension$ or colpo suspension$).tw.	20
24	vesicosuspension$.tw.	0
25	urethrosuspension$.tw.	0
26	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	0
27	colpourethrosuspension$.tw.	0
28	(corner$ adj3 suspension$).tw.	0
29	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	5
30	(bladder$ adj3 buttress$).tw.	0
31	colpofixation$.tw.	0
32	burch$.tw.	40
33	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	207
34	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	3
35	(obturator$ adj3 (shelf$ or shelv$)).tw.	0
36	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	10
37	ligament fixation$.tw.	4
38	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	2
39	((anterior$ or vagina$) adj3 repair$).tw.	114
40	colporraph$.tw.	1
41	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	19
42	(pacey$ or kelly$ or kennedy$).tw.	438
43	SURGICAL MESH/	56
44	SLINGS/	62
45	TAPES/	102
46	(sling$ adj3 (procedure$ or operat$)).tw.	20
47	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	51
48	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	84
49	(tension$ adj3 vagina$).tw.	42
50	tvt.tw.	11
51	tot.tw.	43
52	(slingplast$ or sling plast$).tw.	2

53	bologna$.tw.	31
54	ingelman sundberg$.tw.	1
55	or/23-54	1212
56	"PROSTHESES AND IMPLANTS"/	1406
57	INJECTIONS/	1097
58	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	17
59	injectable$.tw.	318
60	(injection$ adj3 therap$).tw.	203
61	subtrigonal$.tw.	1
62	(bulk$ adj3 agent$).tw.	16
63	contigen.tw.	0
64	COLLAGEN/	544
65	macroplastique$.tw.	2
66	SILICONES/	361
67	microparticulate$.tw.	1
68	HYALURONIC ACID/	186
69	hyaluronan therap$.tw.	1
70	act balloon$.tw.	0
71	CARBON/	40
72	carbon particle$.tw.	1
73	POLYTETRAFLUOROETHYLENE/	96
74	BIOCOMPATIBLE MATERIALS/	309
75	URINARY SPHINCTER, ARTIFICIAL/	12
76	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	16
77	or/56-76	4255
78	cystoplast$.tw.	6
79	ileocystoplast$.tw.	2
80	colocystoplast$.tw.	0
81	enterocystoplast$.tw.	6
82	ureterocystoplast$.tw.	0
83	or/78-82	12
84	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	13
85	(implant$ adj3 device$).tw.	362
86	or/84-85	374
87	(detrusor$ adj3 myectom$).tw.	0
88	(detrusor$ adj3 myotom$).tw.	0
89	detrusorectom$.tw.	0
90	or/87-89	0
91	BOTULINUM TOXINS/	711

92	botulinum$.tw.	485
93	botox$.tw.	144
94	or/91-93	771
95	CAPSAICIN/	141
96	capsaicin$.tw.	91
97	resiniferatoxin$.tw.	2
98	or/95-97	166
99	URINARY DIVERSION/	217
100	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	86
101	or/99-100	234
102	exp PELVIC ORGAN PROLAPSE/	181
103	((vagina$ or uter$) adj3 prolaps$).tw.	59
104	or/102-103	198
105	or/22,55,77,83,86,90,94,98,101,104	7537
106	or/11,105	11283
107	CLINICAL COMPETENCE/	5847
108	PROFESSIONAL COMPETENCE/	3183
109	((clinical$ or professional$ or surgical$) adj3 competenc$).tw.	1177
110	PROFESSIONAL PRACTICE/	3033
111	EDUCATION, CONTINUING/	2539
112	EDUCATION, MEDICAL, CONTINUING/	860
113	EDUCATION, MEDICAL/	2465
114	EDUCATION, COMPETENCY-BASED/	636
115	PROFESSIONAL DEVELOPMENT/	4738
116	PROFESSIONAL REGULATION/	1419
117	(training adj3 standard$).tw.	351
118	(professional$ adj3 (training$ or education$ or development$)).tw.	6248
119	(volume$ adj3 outcome$).tw.	118
120	((surg$ or practice or case or hospital$) adj1 volume$).tw.	129
121	AUDIT/	2659
122	PROFESSIONAL COMPLIANCE/	1169
123	QUALITY ASSURANCE/	5264
124	QUALITY ASSESSMENT/	772
125	PEER REVIEW/	1192
126	BENCHMARKING/	1554
127	(audit$ adj3 standard$).tw.	167
128	(quality adj3 assuranc$).tw.	2065
129	or/107-128	40049
130	and/106,129	195

British Nursing Index

1985 to December 2005

URINC_surgical_competencies_bni_151205

#	Search History	Results
1	INCONTINENCE/	1701
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	446
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	26
4	OAB.tw.	0
5	((urgency adj frequency) or (frequency adj urgency)).tw.	1
6	((urinary adj frequency) or (urinary adj urgency)).tw.	3
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	5
8	nocturia.tw.	8
9	or/1-8	1745
10	((urethra$ or vagina$ or bladder$) adj surger$).tw.	1
11	(colposuspension$ or colpo suspension$).tw.	0
12	vesicosuspension$.tw.	0
13	urethrosuspension$.tw.	0
14	((vesicourethra$ or urethrovesica$) adj3 suspen$).tw.	0
15	colpourethrosuspension$.tw.	0
16	(corner$ adj3 suspension$).tw.	0
17	(urethropex$ or urethrocystopex$ or cystourethropex$ or urethrocervicopex$).tw.	1
18	(bladder$ adj3 buttress$).tw.	0
19	colpofixation$.tw.	0
20	burch$.tw.	0
21	(marshall$ or marchetti$ or krantz$ or mmk$).tw.	4
22	((paravagina$ or pubococcygeal$) adj3 repair$).tw.	1
23	(obturator$ adj3 (shelf$ or shelv$)).tw.	0
24	((bladder$ or neck$ or needle$) adj3 suspen$).tw.	1
25	ligament fixation$.tw.	1
26	((pereyra$ or stamey$ or raz$ or gittes$) adj3 (suspen$ or procedure$)).tw.	0
27	((anterior$ or vagina$) adj3 repair$).tw.	3
28	colporraph$.tw.	0
29	(colpopex$ or sacrocolpopex$ or sacropex$ or colposacropex$).tw.	0
30	(pacey$ or kelly$ or kennedy$).tw.	15
31	(sling$ adj3 (procedure$ or operat$)).tw.	0
32	((bladder$ or surgical$ or synthetic$ or biologic$ or autologous$) adj3 (sling$ or tape$ or mesh$)).tw.	2

33	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or pubovesical$ or pubo vesical$ or retropubic$ or retro pubic$ or suprapubic$ or supra pubic$ or pubovagina$ or transvagina$ or intravagina$ or vagina$ or transobturator$ or trans obturator$ or tension$ or lyodura$ or rosti$) adj3 (sling$ or tape$ or mesh$ or implant$)).tw.	0
34	(tension$ adj3 vagina$).tw.	0
35	tvt.tw.	0
36	tot.tw.	1
37	(slingplast$ or sling plast$).tw.	0
38	bologna$.tw.	0
39	ingelman sundberg$.tw.	0
40	or/11-39	27
41	PROSTHESES/	137
42	INJECTIONS/	152
43	((urethra$ or suburethra$ or midurethra$ or mid urethra$ or transurethra$ or trans urethra$ or periurethra$ or peri urethra$ or endourethra$ or endo urethra$) adj3 (inject$ or agent$ or bulk$)).tw.	0
44	injectable$.tw.	16
45	(injection$ adj3 therap$).tw.	2
46	subtrigonal$.tw.	0
47	(bulk$ adj3 agent$).tw.	0
48	contigen.tw.	0
49	collagen.tw.	8
50	macroplastique$.tw.	0
51	silicone$.tw.	34
52	microparticulate$.tw.	0
53	(hyaluron$ adj3 (acid or therap$)).tw.	6
54	act balloon$.tw.	0
55	carbon.tw.	61
56	((artificial$ or prosthe$) adj3 (urinary or genitourinary or urethra$ or bladder$) adj3 sphincter$).tw.	4
57	or/41-56	410
58	cystoplast$.tw.	0
59	ileocystoplast$.tw.	0
60	colocystoplast$.tw.	0
61	enterocystoplast$.tw.	0
62	ureterocystoplast$.tw.	0
63	or/58-62	0
64	(sacra$ adj5 nerv$ adj5 stimulat$).tw.	2
65	(implant$ adj3 device$).tw.	20
66	or/64-65	22
67	(detrusor$ adj3 myectom$).tw.	0
68	(detrusor$ adj3 myotom$).tw.	0

69	detrusorectom$.tw.	0
70	or/67-69	0
71	botulinum$.tw.	11
72	botox$.tw.	6
73	or/71-72	14
74	capsaicin$.tw.	4
75	resiniferatoxin$.tw.	0
76	or/74-75	4
77	or/10,40,57,63,66,70,73,76	472
78	or/9,77	2208
79	((urin$ or continen$ or conduit$) adj3 diversion$).tw.	9
80	((vagina$ or uter$) adj3 prolaps$).tw.	11
81	((clinical or professional) adj3 competenc$).tw.	121
82	PROFESSIONAL DEVELOPMENT/	2860
83	(training adj3 standard$).tw.	13
84	(professional adj3 (training$ or education$ or development$)).tw.	1514
85	(volume$ adj3 outcome$).tw.	1
86	((surg$ or practice or case or hospital$) adj volume$).tw.	0
87	AUDIT/	411
88	"STANDARDS AND GUIDELINES"/	1516
89	QUALITY ASSURANCE/	2228
90	(audit$ adj3 standard$).tw.	37
91	(quality adj3 assuranc$).tw.	523
92	or/81-91	8416
93	and/78,92	87

Ovid MEDLINE

1966 to January Week 4 2006

URINC_surgery_volume_outcome_medline_020206

#	Search History	Results
1	exp SPECIALTIES, SURGICAL/	93301
2	exp SURGICAL PROCEDURES, OPERATIVE/	1455212
3	or/1-2	1526138
4	(volume$ adj3 outcome$).tw.	675
5	((surg$ or practice or case or hospital$) adj1 volume$).tw.	867
6	BENCHMARKING/	4571
7	or/4-6	5911

8	and/3,7	1188
9	limit 8 to humans	1125
10	limit 9 to yr="2000 - 2006"	790

EMBASE
1980 to 2006 Week 04

URINC_surgery_volume_outcome_embase_020206

#	Search History	Results
1	exp SURGERY/	1161830
2	(volume$ adj3 outcome$).tw.	1046
3	((surg$ or practice or case or hospital$) adj1 volume$).tw.	1186
4	(benchmarking or bench marking).tw.	734
5	or/2-4	2725
6	and/1,5	1221
7	limit 6 to human	1155
8	limit 7 to yr="2000 - 2006"	791

CINAHL - Cumulative Index to Nursing & Allied Health Literature
1982 to December Week 2 2005

URINC_surgery_volume_outcome_cinahl_020206

#	Search History	Results
1	exp SURGERY, OPERATIVE/	68039
2	(volume$ adj3 outcome$).tw.	118
3	((surg$ or practice or case or hospital$) adj1 volume$).tw.	129
4	BENCHMARKING/	1554
5	or/2-4	1770
6	and/1,5	195
7	limit 6 to yr="2000 - 2005"	133

2013 Search stratigies

Neuromodulation

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 3rd Quarter 2011
Search Strategy: UI_update_neuromodulation_cctr_010811

#	Searches	Results
1	randomized controlled trial.pt.	297820
2	controlled clinical trial.pt.	80461
3	DOUBLE BLIND METHOD/	93328
4	SINGLE BLIND METHOD/	9863
5	RANDOM ALLOCATION/	20340
6	RANDOMIZED CONTROLLED TRIALS/	5251
7	or/1-6	373572
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	122436
9	clinical trial.pt.	275252
10	exp CLINICAL TRIAL/	0
11	exp CLINICAL TRIALS AS TOPIC/	39086
12	(clinic$ adj5 trial$).tw,sh.	45359
13	PLACEBOS/	20095
14	placebo$.tw,sh.	120789
15	random$.tw,sh.	298813
16	or/8-15	449073
17	or/7,16	472256
18	META ANALYSIS/	0
19	META ANALYSIS AS TOPIC/	189
20	meta analysis.pt.	436
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	1223
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	356
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	32
24	or/18-23	1679
25	review$.pt.	2409
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	446
27	((hand or manual$) adj2 search$).tw.	38
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	73
29	(pooling or pooled or mantel haenszel).tw,sh.	2507
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	47

31	or/26-30	3018
32	and/25,31	61
33	or/24,32	1712
34	letter.pt.	4956
35	case report.tw.	182
36	comment.pt.	1702
37	editorial.pt.	292
38	historical article.pt.	68
39	or/34-38	5848
40	17 not 39	466545
41	33 not 39	1685
42	or/40-41	466795
43	URINARY INCONTINENCE/	592
44	URINARY BLADDER, OVERACTIVE/	152
45	URGE INCONTINENCE/	44
46	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1575
47	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	548
48	OAB.ti,ab.	181
49	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	147
50	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	348
51	nocturia.ti,ab.	218
52	or/43-51	2478
53	ELECTRIC STIMULATION THERAPY/	988
54	(electrostimulat$ or electro-stimulat$).ti,ab.	210
55	(SANS or stoller).ti,ab.	211
56	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	534
57	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	889
58	TENS.ti,ab.	552
59	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	25
60	PTNS.ti,ab.	8
61	(sacral nerve$ adj stimulat$).ti,ab.	33
62	SNS.ti,ab.	112
63	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	60
64	neuro?muscular$.ti,ab.	2438
65	neuromodulat$.ti,ab.	134
66	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	5

67	exp MAGNETIC FIELD THERAPY/	460
68	ELECTRODES, IMPLANTED/	242
69	functional electrostimulation.ti,ab.	6
70	FES.ti,ab.	144
71	FCMS.ti,ab.	4
72	functional urgency continuous magnetic stimulation.ti,ab.	0
73	or/53-72	5567
74	and/52,73	120
75	and/42,74	103
76	limit 75 to yr="2006 -Current"	41

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials November 2012
Search Strategy: **UI_update_neuromodulation_cctr_rerun2_271112**

#	**Searches**	**Results**
1	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	1253
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1923
3	lower urinary tract symptom$.ti,ab.	367
4	LUTS.ti,ab.	168
5	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	587
6	OAB.ti,ab.	204
7	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	152
8	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	363
9	nocturia.ti,ab.	235
10	or/1-9	3163
11	ELECTRIC STIMULATION THERAPY/	1040
12	(electrostimulat$ or electro-stimulat$).ti,ab.	218
13	(SANS or stoller).ti,ab.	218
14	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	557
15	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	932
16	TENS.ti,ab.	584
17	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	25
18	PTNS.ti,ab.	8
19	(sacral nerve$ adj stimulat$).ti,ab.	34
20	SNS.ti,ab.	119

21	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	61
22	neuro?muscular$.ti,ab.	2541
23	neuromodulat$.ti,ab.	150
24	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	5
25	exp MAGNETIC FIELD THERAPY/	539
26	ELECTRODES, IMPLANTED/	252
27	functional electrostimulation.ti,ab.	6
28	FES.ti,ab.	157
29	FCMS.ti,ab.	4
30	functional urgency continuous magnetic stimulation.ti,ab.	0
31	or/11-30	5874
32	and/10,31	137
33	limit 32 to yr="2012 -Current"	0

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to July 2011, EBM Reviews - Database of Abstracts of Reviews of Effects 3rd Quarter 2011
Search Strategy: UI_update_neuromodulation_cdsrdare_010811

#	Searches	Results
1	URINARY INCONTINENCE.kw.	125
2	URINARY BLADDER, OVERACTIVE.kw.	17
3	URGE INCONTINENCE.kw.	0
4	((mix$ or urg$ or urin$) adj3 incontinen$).tw,tx.	256
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw,tx.	57
6	OAB.tw,tx.	13
7	((urgency adj frequency) or (frequency adj urgency)).tw,tx.	70
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	61
9	nocturia.tw,tx.	55
10	or/1-9	309
11	ELECTRIC STIMULATION THERAPY.kw.	104
12	(electrostimulat$ or electro-stimulat$).tw,tx.	76
13	(SANS or stoller).tw,tx.	74
14	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION.kw.	38
15	((transcutaneous or percutaneous) adj3 stimulat$).tw,tx.	212
16	TENS.tw,tx.	174
17	(posterior tibial nerve$ adj3 stimulat$).tw,tx.	2
18	PTNS.tw,tx.	0

19	(sacral nerve$ adj stimulat$).tw,tx.	11
20	SNS.tw,tx.	8
21	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw,tx.	15
22	neuro?muscular$.tw,tx.	387
23	neuromodulat$.tw,tx.	28
24	((trophic$ or eutrophic$) adj3 stimulat$).tw,tx.	0
25	MAGNETIC FIELD THERAPY.kw.	8
26	ELECTRODES, IMPLANTED.kw.	8
27	functional electrostimulation.tw,tx.	1
28	FES.tw,tx.	16
29	FCMS.tw,tx.	0
30	functional urgency continuous magnetic stimulation.tw,tx.	0
31	or/11-30	817
32	and/10,31	43
33	limit 32 to last 5 years	42

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to October 2012, EBM Reviews - Database of Abstracts of Reviews of Effects 4th Quarter 2012
Search Strategy: **UI_update_neuromodulation_cdsrdare_rerun2_271112**

#	**Searches**	**Results**
1	(LOWER URINARY TRACT SYMPTOMS or DYSURIA or NOCTURIA or URINARY BLADDER, OVERACTIVE or URINARY INCONTINENCE or URINARY INCONTINENCE, STRESS or URINARY INCONTINENCE, URGE).kw.	153
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw,tx.	300
3	lower urinary tract symptom$.tw,tx.	70
4	LUTS.tw,tx.	32
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw,tx.	65
6	OAB.tw,tx.	18
7	((urgency adj frequency) or (frequency adj urgency)).tw,tx.	75
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	66
9	nocturia.tw,tx.	60
10	or/1-9	372
11	ELECTRIC STIMULATION THERAPY.kw.	119
12	(electrostimulat$ or electro-stimulat$).tw,tx.	85
13	(SANS or stoller).tw,tx.	83
14	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION.kw.	40
15	((transcutaneous or percutaneous) adj3 stimulat$).tw,tx.	237

16	TENS.tw,tx.	193
17	(posterior tibial nerve$ adj3 stimulat$).tw,tx.	3
18	PTNS.tw,tx.	1
19	(sacral nerve$ adj stimulat$).tw,tx.	15
20	SNS.tw,tx.	9
21	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw,tx.	15
22	neuro?muscular$.tw,tx.	446
23	neuromodulat$.tw,tx.	35
24	((trophic$ or eutrophic$) adj3 stimulat$).tw,tx.	1
25	MAGNETIC FIELD THERAPY.kw.	10
26	ELECTRODES, IMPLANTED.kw.	9
27	functional electrostimulation.tw,tx.	1
28	FES.tw,tx.	19
29	FCMS.tw,tx.	0
30	functional urgency continuous magnetic stimulation.tw,tx.	0
31	or/11-30	925
32	and/10,31	51
33	limit 32 to last year	31

Database(s): Embase 1980 to 2011 Week 30
Search Strategy: UI_update_neuromodulation_embase_020811

#	Searches	Results
1	CLINICAL TRIALS/	4311
2	(clinic$ adj5 trial$).ti,ab,sh.	211168
3	SINGLE BLIND PROCEDURE/	13769
4	DOUBLE BLIND PROCEDURE/	99400
5	RANDOM ALLOCATION/	53360
6	CROSSOVER PROCEDURE/	30140
7	PLACEBO/	181724
8	placebo$.ti,ab,sh.	252540
9	random$.ti,ab,sh.	731490
10	RANDOMIZED CONTROLLED TRIALS/	5384
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	128634
12	randomi?ed control$ trial$.tw.	63874
13	or/1-12	1017896
14	META ANALYSIS/	54756

15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	75265
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	51984
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	3044
18	or/14-17	109473
19	review.pt.	1690142
20	(medline or medlars or embase).ab.	47750
21	(scisearch or science citation index).ab.	1821
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	26191
23	((hand or manual$) adj2 search$).tw.	5796
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	10106
25	(pooling or pooled or mantel haenszel).tw.	44177
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	2542
27	or/20-26	102063
28	and/19,27	39432
29	or/18,28	128943
30	(book or conference paper or editorial or letter or note or proceeding or short survey).pt.	2534588
31	13 not 30	932068
32	29 not 30	114480
33	or/31-32	994292
34	URINE INCONTINENCE/ or MICTURITION DISORDER/ or exp ENURESIS/ or MIXED INCONTINENCE/ or URGE INCONTINENCE/	40614
35	OVERACTIVE BLADDER/	4776
36	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	21926
37	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	4670
38	OAB.ti,ab.	1657
39	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1032
40	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3173
41	nocturia.ti,ab.	2183
42	or/34-41	53137
43	NEUROMODULATION/	16068
44	ELECTROSTIMULATION THERAPY/	9721
45	(electrostimulat$ or electro-stimulat$).ti,ab.	3232
46	(SANS or stoller).ti,ab.	2081
47	TRANSCUTANEOUS NERVE STIMULATION/	4573
48	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	3190
49	TENS.ti,ab.	6960

50	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	372
51	PTNS.ti,ab.	164
52	(sacral nerve$ adj2 stimulat$).ti,ab.	569
53	SNS.ti,ab.	2451
54	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	438
55	neuromodulat$.ti,ab.	9276
56	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	210
57	MAGNETOTHERAPY/	481
58	(implant$ adj3 electrode$).ti,ab.	6989
59	or/43-58	56720
60	and/42,59	1650
61	and/33,60	252
62	limit 61 to yr="2006 -Current"	159
63	limit 62 to english language	147

Database(s): Embase 1980 to 2012 Week 47
Search Strategy: **UI_update_neuromodulation_embase_rerun2_271112**

#	**Searches**	**Results**
1	CLINICAL TRIAL/ or "CLINICAL TRIAL (TOPIC)"/	892361
2	(clinic$ adj5 trial$).ti,ab,sh.	259801
3	SINGLE BLIND PROCEDURE/	16668
4	DOUBLE BLIND PROCEDURE/	111920
5	RANDOM ALLOCATION/	60042
6	CROSSOVER PROCEDURE/	35555
7	PLACEBO/	208557
8	placebo$.ti,ab,sh.	288631
9	random$.ti,ab,sh.	885188
10	RANDOMIZED CONTROLLED TRIAL/ or "RANDOMIZED CONTROLLED TRIAL (TOPIC)"/	354927
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	146752
12	randomi?ed control$ trial$.tw.	83970
13	or/1-12	1610345
14	META ANALYSIS/	67318
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	96401
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	70630
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	3606

18	or/14-17	142792
19	review.pt.	1894235
20	(medline or medlars or embase).ab.	61182
21	(scisearch or science citation index).ab.	2175
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	35214
23	((hand or manual$) adj2 search$).tw.	7244
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	13607
25	(pooling or pooled or mantel haenszel).tw.	55296
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	3302
27	or/20-26	129680
28	and/19,27	49570
29	or/18,28	165330
30	(book or conference paper or editorial or letter or note or proceeding or short survey).pt.	2800578
31	13 not 30	1436937
32	29 not 30	148449
33	or/31-32	1500781
34	URINE INCONTINENCE/ or MICTURITION DISORDER/ or exp ENURESIS/ or MIXED INCONTINENCE/ or URGE INCONTINENCE/	45537
35	OVERACTIVE BLADDER/	6407
36	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	25630
37	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	5958
38	OAB.ti,ab.	2277
39	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1235
40	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3813
41	nocturia.ti,ab.	2705
42	or/34-41	60939
43	NEUROMODULATION/	19472
44	exp NERVE STIMULATION/	72046
45	ELECTROSTIMULATION THERAPY/	10915
46	(electrostimulat$ or electro-stimulat$).ti,ab.	3537
47	(SANS or stoller).ti,ab.	2470
48	TRANSCUTANEOUS NERVE STIMULATION/	5138
49	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	3650
50	TENS.ti,ab.	8358
51	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	422

52	PTNS.ti,ab.	211
53	(sacral nerve$ adj2 stimulat$).ti,ab.	723
54	SNS.ti,ab.	3025
55	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	467
56	neuromodulat$.ti,ab.	10986
57	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	232
58	MAGNETOTHERAPY/	622
59	(implant$ adj3 electrode$).ti,ab.	8078
60	or/43-59	125825
61	and/42,60	2355
62	and/33,61	587
63	limit 62 to yr="2012 -Current"	53
64	limit 63 to english language	47

Database(s): EBM Reviews - Health Technology Assessment 4th Quarter 2012
Search Strategy: **UI_update_neuromodulation_hta_rerun2_271112**

#	**Searches**	**Results**
1	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	56
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	62
3	lower urinary tract symptom$.tw.	5
4	LUTS.tw.	3
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	5
6	OAB.tw.	2
7	((urgency adj frequency) or (frequency adj urgency)).tw.	4
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	2
9	nocturia.tw.	0
10	or/1-9	72
11	ELECTRIC STIMULATION THERAPY/	122
12	(electrostimulat$ or electro-stimulat$).tw.	2
13	(SANS or stoller).tw.	0
14	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	16
15	((transcutaneous or percutaneous) adj3 stimulat$).tw.	18
16	TENS.tw.	8
17	(posterior tibial nerve$ adj3 stimulat$).tw.	1

18	PTNS.tw.	0
19	(sacral nerve$ adj stimulat$).tw.	14
20	SNS.tw.	2
21	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	0
22	neuro?muscular$.tw.	20
23	neuromodulat$.tw.	9
24	((trophic$ or eutrophic$) adj3 stimulat$).tw.	0
25	exp MAGNETIC FIELD THERAPY/	0
26	ELECTRODES, IMPLANTED/	12
27	functional electrostimulation.tw.	0
28	FES.tw.	7
29	FCMS.tw.	0
30	functional urgency continuous magnetic stimulation.tw.	0
31	or/11-30	164
32	and/10,31	16

Database(s): Ovid MEDLINE(R) 1948 to July Week 3 2011
Search Strategy: UI_update_neuromodulation_medline_010811

#	Searches	Results
1	randomized controlled trial.pt.	311887
2	controlled clinical trial.pt.	82903
3	DOUBLE BLIND METHOD/	111548
4	SINGLE BLIND METHOD/	15272
5	RANDOM ALLOCATION/	72175
6	RANDOMIZED CONTROLLED TRIALS/	74673
7	or/1-6	525240
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	109978
9	clinical trial.pt.	464921
10	exp CLINICAL TRIAL/	648958
11	exp CLINICAL TRIALS AS TOPIC/	244458
12	(clinic$ adj5 trial$).tw,sh.	168247
13	PLACEBOS/	29912
14	placebo$.tw,sh.	144136
15	random$.tw,sh.	684424
16	or/8-15	1178150
17	or/7,16	1183122

18	META ANALYSIS/	29608
19	META ANALYSIS AS TOPIC/	11482
20	meta analysis.pt.	29608
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	50900
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	30969
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2478
24	or/18-23	73033
25	review$.pt.	1626632
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	46464
27	((hand or manual$) adj2 search$).tw.	4782
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	8113
29	(pooling or pooled or mantel haenszel).tw,sh.	37904
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	2042
31	or/26-30	86812
32	and/25,31	40439
33	or/24,32	93812
34	letter.pt.	720626
35	case report.tw.	159806
36	comment.pt.	446617
37	editorial.pt.	279558
38	historical article.pt.	276821
39	or/34-38	1495359
40	17 not 39	1138336
41	33 not 39	88681
42	or/40-41	1184411
43	URINARY INCONTINENCE/	16173
44	URINARY BLADDER, OVERACTIVE/	1437
45	URGE INCONTINENCE/	336
46	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	16655
47	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3050
48	OAB.ti,ab.	816
49	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	728
50	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2321
51	nocturia.ti,ab.	1547
52	or/43-51	28844

53	ELECTRIC STIMULATION THERAPY/	15002
54	(electrostimulat$ or electro-stimulat$).ti,ab.	2813
55	(SANS or stoller).ti,ab.	1334
56	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	2902
57	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	2613
58	TENS.ti,ab.	5497
59	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	336
60	PTNS.ti,ab.	132
61	(sacral nerve$ adj stimulat$).ti,ab.	328
62	SNS.ti,ab.	1958
63	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	382
64	neuro?muscular$.ti,ab.	34098
65	neuromodulat$.ti,ab.	7490
66	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	195
67	exp MAGNETIC FIELD THERAPY/	4777
68	ELECTRODES, IMPLANTED/	14567
69	functional electrostimulation.ti,ab.	46
70	FES.ti,ab.	2496
71	FCMS.ti,ab.	52
72	functional urgency continuous magnetic stimulation.ti,ab.	0
73	or/53-72	87193
74	and/52,73	1171
75	and/42,74	292
76	limit 75 to english language	259
77	limit 76 to (animals and humans)	3
78	limit 76 to animals	5
79	78 not 77	2
80	76 not 79	257
81	limit 80 to yr="2006 -Current"	101
82	limit 81 to "all adult (19 plus years)"	62

Database(s): Ovid MEDLINE(R) 1946 to November Week 3 2012
Search Strategy: **UI_update_neuromodulation_medline_rerun2_271112**

#	**Searches**	**Results**
1	randomized controlled trial.pt.	342057
2	controlled clinical trial.pt.	85675

3	DOUBLE BLIND METHOD/	118432
4	SINGLE BLIND METHOD/	17072
5	RANDOM ALLOCATION/	76571
6	RANDOMIZED CONTROLLED TRIALS/	84859
7	or/1-6	573128
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	117198
9	clinical trial.pt.	476279
10	exp CLINICAL TRIAL/	705716
11	exp CLINICAL TRIALS AS TOPIC/	264246
12	(clinic$ adj5 trial$).tw,sh.	191481
13	PLACEBOS/	31568
14	placebo$.tw,sh.	154693
15	random$.tw,sh.	757795
16	or/8-15	1295182
17	or/7,16	1300437
18	META ANALYSIS/	37837
19	META ANALYSIS AS TOPIC/	12594
20	meta analysis.pt.	37837
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	62670
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	40689
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2861
24	or/18-23	90948
25	review$.pt.	1757173
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	57079
27	((hand or manual$) adj2 search$).tw.	5667
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	10259
29	(pooling or pooled or mantel haenszel).tw,sh.	43286
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	2509
31	or/26-30	102900
32	and/25,31	50119
33	or/24,32	114652
34	letter.pt.	766761
35	case report.tw.	171300
36	comment.pt.	493362
37	editorial.pt.	310895

38	historical article.pt.	290561
39	or/34-38	1608659
40	17 not 39	1251981
41	33 not 39	108788
42	or/40-41	1308937
43	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	26537
44	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	19667
45	lower urinary tract symptom$.ti,ab.	3493
46	LUTS.ti,ab.	1618
47	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3526
48	OAB.ti,ab.	1050
49	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	781
50	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2507
51	nocturia.ti,ab.	1738
52	or/43-51	36454
53	ELECTRIC STIMULATION THERAPY/	15968
54	(electrostimulat$ or electro-stimulat$).ti,ab.	2914
55	(SANS or stoller).ti,ab.	1501
56	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	3117
57	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	2786
58	TENS.ti,ab.	6237
59	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	359
60	PTNS.ti,ab.	146
61	(sacral nerve$ adj stimulat$).ti,ab.	388
62	SNS.ti,ab.	2152
63	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	385
64	neuro?muscular$.ti,ab.	36706
65	neuromodulat$.ti,ab.	8317
66	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	202
67	exp MAGNETIC FIELD THERAPY/	5846
68	ELECTRODES, IMPLANTED/	15515
69	functional electrostimulation.ti,ab.	47
70	FES.ti,ab.	2843
71	FCMS.ti,ab.	67

72	functional urgency continuous magnetic stimulation.ti,ab.	0
73	or/53-72	94753
74	and/42,52,73	349
75	limit 74 to yr="2012 -Current"	17

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations July 29, 2011
Search Strategy: UI_update_neuromodulation_MiP_010811

#	Searches	Results
1	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	697
2	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	269
3	OAB.ti,ab.	130
4	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	44
5	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	131
6	nocturia.tw.	87
7	or/1-6	1031
8	(electrostimulat$ or electro stimulat$).ti,ab.	48
9	(SANS or stoller).ti,ab.	423
10	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	105
11	TENS.ti,ab.	1425
12	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	10
13	PTNS.ti,ab.	3
14	(sacral nerve$ adj stimulat$).ti,ab.	28
15	SNS.ti,ab.	146
16	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	12
17	neuro?muscular$.ti,ab.	1079
18	neuromodulat$.ti,ab.	339
19	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	4
20	magnet$.ti,ab.	31324
21	electrode$.ti,ab.	11139
22	functional electrostimulation.ti,ab.	2
23	FES.ti,ab.	172
24	FCMS.ti,ab.	6
25	or/8-24	45418
26	and/7,25	56
27	limit 26 to english language	53

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations November 26, 2012
Search Strategy: **UI_update_neuromodulation_mip_rerun2_271112**

#	**Searches**	**Results**
1	lower urinary tract symptom$.ti,ab.	403
2	LUTS.ti,ab.	197
3	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1011
4	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	382
5	OAB.ti,ab.	156
6	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	74
7	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	141
8	nocturia.tw.	116
9	or/1-8	1768
10	(electrostimulat$ or electro stimulat$).ti,ab.	54
11	(SANS or stoller).ti,ab.	510
12	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	186
13	TENS.ti,ab.	1741
14	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	15
15	PTNS.ti,ab.	12
16	(sacral nerve$ adj stimulat$).ti,ab.	43
17	SNS.ti,ab.	226
18	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	18
19	neuro?muscular$.ti,ab.	1439
20	neuromodulat$.ti,ab.	652
21	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	5
22	magnet$.ti,ab.	39508
23	electrode$.ti,ab.	13646
24	functional electrostimulation.ti,ab.	3
25	FES.ti,ab.	253
26	FCMS.ti,ab.	11
27	or/10-26	57099
28	and/9,27	111
29	limit 28 to english language	105

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 4th Quarter 2011
Search Strategy: UI_update_neuromodulation_economic_cctr_201011

#	Searches	Results
1	ECONOMICS/	28
2	VALUE OF LIFE/	27
3	exp "COSTS AND COST ANALYSIS"/	5698
4	exp ECONOMICS, HOSPITAL/	444
5	exp ECONOMICS, MEDICAL/	53
6	ECONOMICS, NURSING/	7
7	ECONOMICS, PHARMACEUTICAL/	51
8	exp "FEES AND CHARGES"/	196
9	exp BUDGETS/	15
10	budget*.ti,ab.	159
11	cost*.ti.	4580
12	(economic* or pharmaco?economic*).ti.	1333
13	(price* or pricing*).ti,ab.	558
14	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.	6040
15	(financ* or fee or fees).ti,ab.	1263
16	(value adj2 (money or monetary)).ti,ab.	60
17	or/1-16	12357
18	URINARY INCONTINENCE/	599
19	URINARY BLADDER, OVERACTIVE/	164
20	URGE INCONTINENCE/	47
21	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1609
22	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	568
23	OAB.ti,ab.	193
24	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	151
25	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	356
26	nocturia.ti,ab.	225
27	or/18-26	2536
28	ELECTRIC STIMULATION THERAPY/	1001
29	(electrostimulat$ or electro-stimulat$).ti,ab.	212
30	(SANS or stoller).ti,ab.	217
31	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	538
32	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	911
33	TENS.ti,ab.	567
34	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	25

35	PTNS.ti,ab.	8
36	(sacral nerve$ adj stimulat$).ti,ab.	34
37	SNS.ti,ab.	115
38	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	61
39	neuro?muscular$.ti,ab.	2472
40	neuromodulat$.ti,ab.	138
41	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	5
42	exp MAGNETIC FIELD THERAPY/	478
43	ELECTRODES, IMPLANTED/	245
44	functional electrostimulation.ti,ab.	6
45	FES.ti,ab.	152
46	FCMS.ti,ab.	4
47	functional urgency continuous magnetic stimulation.ti,ab.	0
48	or/28-47	5671
49	and/27,48	122
50	and/17,49	3
51	limit 50 to yr="2006 -Current"	1

Database(s): Embase 1980 to 2011 Week 41
Search Strategy:UI_update_neuromodulation_economic_embase_201011

#	Searches	Results
1	HEALTH ECONOMICS/	30597
2	exp ECONOMIC EVALUATION/	172494
3	exp HEALTH CARE COST/	165720
4	exp FEE/	30147
5	BUDGET/	16040
6	FUNDING/	10933
7	budget*.ti,ab.	18920
8	cost*.ti.	81023
9	(economic* or pharmaco?economic*).ti.	33570
10	(price* or pricing*).ti,ab.	24940
11	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.	89549
12	(financ* or fee or fees).ti,ab.	73349
13	(value adj2 (money or monetary)).ti,ab.	1284
14	or/1-13	493525
15	URINE INCONTINENCE/ or MICTURITION DISORDER/ or exp ENURESIS/ or MIXED INCONTINENCE/ or	41462

	URGE INCONTINENCE/	
16	OVERACTIVE BLADDER/	5094
17	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	22609
18	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	4913
19	OAB.ti,ab.	1779
20	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1071
21	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3291
22	nocturia.ti,ab.	2265
23	or/15-22	54494
24	NEUROMODULATION/	16547
25	ELECTROSTIMULATION THERAPY/	9905
26	(electrostimulat$ or electro-stimulat$).ti,ab.	3279
27	(SANS or stoller).ti,ab.	2148
28	TRANSCUTANEOUS NERVE STIMULATION/	4671
29	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	3268
30	TENS.ti,ab.	7268
31	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	376
32	PTNS.ti,ab.	171
33	(sacral nerve$ adj2 stimulat$).ti,ab.	595
34	SNS.ti,ab.	2538
35	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	448
36	neuromodulat$.ti,ab.	9538
37	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	213
38	MAGNETOTHERAPY/	531
39	(implant$ adj3 electrode$).ti,ab.	7174
40	or/24-39	58362
41	and/23,40	1699
42	and/14,41	125
43	limit 42 to yr="2006 -Current"	82
44	limit 43 to english language	79

Database(s): EBM Reviews - Health Technology Assessment 4th Quarter 2011
Search Strategy: URIC_update_neuromodulation_economic_hta_201011

#	Searches	Results
1	URINARY INCONTINENCE/	32
2	URINARY BLADDER, OVERACTIVE/	2

3	URGE INCONTINENCE/	0
4	((mix$ or urg$ or urin$) adj3 incontinen$).tw.	72
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	4
6	OAB.tw.	1
7	((urgency adj frequency) or (frequency adj urgency)).tw.	4
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	2
9	nocturia.tw.	0
10	or/1-9	76
11	ELECTRIC STIMULATION THERAPY/	114
12	(electrostimulat$ or electro-stimulat$).tw.	2
13	(SANS or stoller).tw.	0
14	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	14
15	((transcutaneous or percutaneous) adj3 stimulat$).tw.	18
16	TENS.tw.	12
17	(posterior tibial nerve$ adj3 stimulat$).tw.	1
18	PTNS.tw.	0
19	(sacral nerve$ adj stimulat$).tw.	13
20	SNS.tw.	3
21	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	0
22	neuro?muscular$.tw.	20
23	neuromodulat$.tw.	6
24	((trophic$ or eutrophic$) adj3 stimulat$).tw.	0
25	exp MAGNETIC FIELD THERAPY/	0
26	ELECTRODES, IMPLANTED/	10
27	functional electrostimulation.tw.	0
28	FES.tw.	8
29	FCMS.tw.	0
30	functional urgency continuous magnetic stimulation.tw.	0
31	or/11-30	161
32	and/10,31	15

Database(s): Ovid MEDLINE(R) 1948 to October Week 2 2011
Search Strategy:UI_update_neuromodulation_economic_medline_201011

#	Searches	Results
1	ECONOMICS/	26457
2	VALUE OF LIFE/	5199

3	exp "COSTS AND COST ANALYSIS"/	160809
4	exp ECONOMICS, HOSPITAL/	17670
5	exp ECONOMICS, MEDICAL/	13581
6	ECONOMICS, NURSING/	3854
7	ECONOMICS, PHARMACEUTICAL/	2293
8	exp "FEES AND CHARGES"/	25563
9	exp BUDGETS/	11129
10	budget*.ti,ab.	14888
11	cost*.ti.	66603
12	(economic* or pharmaco?economic*).ti.	26690
13	(price* or pricing*).ti,ab.	19402
14	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.	69431
15	(financ* or fee or fees).ti,ab.	60280
16	(value adj2 (money or monetary)).ti,ab.	986
17	or/1-16	352904
18	URINARY INCONTINENCE/	16827
19	URINARY BLADDER, OVERACTIVE/	1628
20	URGE INCONTINENCE/	397
21	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	17799
22	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3274
23	OAB.ti,ab.	917
24	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	775
25	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2482
26	nocturia.ti,ab.	1653
27	or/18-26	30488
28	ELECTRIC STIMULATION THERAPY/	15363
29	(electrostimulat$ or electro-stimulat$).ti,ab.	2845
30	(SANS or stoller).ti,ab.	1380
31	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	2947
32	((transcutaneous or percutaneous) adj3 stimulat$).ti,ab.	2658
33	TENS.ti,ab.	5727
34	(posterior tibial nerve$ adj3 stimulat$).ti,ab.	340
35	PTNS.ti,ab.	133
36	(sacral nerve$ adj stimulat$).ti,ab.	349
37	SNS.ti,ab.	2029
38	((neuromuscular$ or neuro-muscular$) adj stimulat$).ti,ab.	387

39	neuro?muscular$.ti,ab.	34856
40	neuromodulat$.ti,ab.	7770
41	((trophic$ or eutrophic$) adj3 stimulat$).ti,ab.	200
42	exp MAGNETIC FIELD THERAPY/	5037
43	ELECTRODES, IMPLANTED/	14881
44	functional electrostimulation.ti,ab.	47
45	FES.ti,ab.	2567
46	FCMS.ti,ab.	58
47	functional urgency continuous magnetic stimulation.ti,ab.	0
48	or/28-47	89500
49	and/27,48	1241
50	and/17,49	32
51	limit 50 to yr="2006 -Current"	16

Database(s): EBM Reviews - NHS Economic Evaluation Database 4th Quarter 2011
Search Strategy:UI_update_neuromodulation_economic_nhseed_201011

#	Searches	Results
1	URINARY INCONTINENCE/	17
2	URINARY BLADDER, OVERACTIVE/	10
3	URGE INCONTINENCE/	2
4	((mix$ or urg$ or urin$) adj3 incontinen$).tw.	65
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	18
6	OAB.tw.	6
7	((urgency adj frequency) or (frequency adj urgency)).tw.	4
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	9
9	nocturia.tw.	6
10	or/1-9	79
11	ELECTRIC STIMULATION THERAPY/	21
12	(electrostimulat$ or electro-stimulat$).tw.	0
13	(SANS or stoller).tw.	6
14	TRANSCUTANEOUS ELECTRIC NERVE STIMULATION/	5
15	((transcutaneous or percutaneous) adj3 stimulat$).tw.	15
16	TENS.tw.	5
17	(posterior tibial nerve$ adj3 stimulat$).tw.	0
18	PTNS.tw.	0
19	(sacral nerve$ adj stimulat$).tw.	4

20	SNS.tw.	5
21	((neuromuscular$ or neuro-muscular$) adj stimulat$).tw.	0
22	neuro?muscular$.tw.	35
23	neuromodulat$.tw.	6
24	((trophic$ or eutrophic$) adj3 stimulat$).tw.	0
25	exp MAGNETIC FIELD THERAPY/	0
26	ELECTRODES, IMPLANTED/	13
27	functional electrostimulation.tw.	0
28	FES.tw.	0
29	FCMS.tw.	0
30	functional urgency continuous magnetic stimulation.tw.	0
31	or/11-30	86
32	and/10,31	7

Drugs for the treatment of OAB

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials November 2012
Search Strategy: **UI_update_drugs_cctr_rerun2_261112**

#	Searches	Results
1	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	1253
2	URINARY BLADDER, OVERACTIVE/	187
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1923
4	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	587
5	OAB.ti,ab.	204
6	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	152
7	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	363
8	nocturia.tw.	235
9	SUI.ti,ab.	181
10	or/1-9	2907
11	exp MANDELIC ACIDS/	250
12	oxybutynin$.ti,ab.	284
13	exp MUSCARINIC ANTAGONISTS/	2800
14	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	281
15	CHOLINERGIC ANTAGONISTS/	214
16	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	1783

17	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	365
18	tolterodine.ti,ab.	297
19	darifenacin$.ti,ab.	42
20	solifenacin$.ti,ab.	71
21	trospium.ti,ab.	87
22	propiverine.ti,ab.	58
23	fesoterodine.ti,ab.	47
24	or/11-23	5016
25	and/10,24	639
26	limit 25 to yr="2012 -Current"	4

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 2nd Quarter 2011
Search Strategy: UI_update_drugs_cctr_010611

#	Searches	Results
1	URINARY INCONTINENCE/	587
2	URINARY INCONTINENCE, STRESS/	429
3	URINARY BLADDER, OVERACTIVE/	144
4	URGE INCONTINENCE/	41
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1804
6	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	535
7	OAB.ti,ab.	172
8	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	145
9	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	345
10	nocturia.tw.	216
11	SUI.ti,ab.	165
12	or/1-11	2716
13	exp MANDELIC ACIDS/	243
14	oxybutynin$.ti,ab.	273
15	exp MUSCARINIC ANTAGONISTS/	2745
16	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	264
17	CHOLINERGIC ANTAGONISTS/	200
18	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	1754
19	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	356
20	tolterodine.ti,ab.	271
21	darifenacin$.ti,ab.	41
22	solifenacin$.ti,ab.	59

23	trospium.ti,ab.	84
24	propiverine.ti,ab.	54
25	fesoterodine.ti,ab.	31
26	or/13-25	4906
27	and/12,26	583
28	limit 27 to yr="2006 -Current"	232

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to May 2011, EBM Reviews - Database of Abstracts of Reviews of Effects 2nd Quarter 2011
Search Strategy: UI_update_drugs_cdsrdare_020611

#	Searches	Results
1	URINARY INCONTINENCE.kw.	125
2	URINARY INCONTINENCE, STRESS.kw.	33
3	URINARY BLADDER, OVERACTIVE.kw.	15
4	URGE INCONTINENCE.kw.	0
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw,tx.	255
6	(bladder$ adj3 (overactiv$ or incontinen$)).tw,tx.	55
7	OAB.tw,tx.	13
8	((urgency adj frequency) or (frequency adj urgency)).tw,tx.	68
9	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	58
10	nocturia.tw,tx.	53
11	SUI.tw,tx.	25
12	or/1-11	311
13	MANDELIC ACIDS.kw.	4
14	oxybutynin$.tw,tx.	25
15	MUSCARINIC ANTAGONISTS.kw.	12
16	(antimuscarinic$ or (anti adj muscarinic$)).tw,tx.	28
17	CHOLINERGIC ANTAGONISTS.kw.	40
18	(anticholinergic$ or (anti adj cholinergic$)).tw,tx.	300
19	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw,tx.	81
20	tolterodine.tw,tx.	13
21	darifenacin$.tw,tx.	6
22	solifenacin$.tw,tx.	5
23	trospium.tw,tx.	7
24	propiverine.tw,tx.	10
25	fesoterodine.tw,tx.	1

26	or/13-25	341
27	and/12,26	59
28	limit 27 to last 5 years	55

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to October 2012, EBM Reviews - Database of Abstracts of Reviews of Effects 4th Quarter 2012
Search Strategy: UI_update_drugs_cdsrdare_rerun2_261112

#	Searches	Results
1	(LOWER URINARY TRACT SYMPTOMS or DYSURIA or NOCTURIA or URINARY BLADDER, OVERACTIVE or URINARY INCONTINENCE or URINARY INCONTINENCE, STRESS or URINARY INCONTINENCE, URGE).kw.	153
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw,tx.	300
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw,tx.	65
4	OAB.tw,tx.	18
5	((urgency adj frequency) or (frequency adj urgency)).tw,tx.	75
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	66
7	nocturia.tw,tx.	60
8	SUI.tw,tx.	29
9	or/1-8	361
10	MANDELIC ACIDS.kw.	4
11	oxybutynin$.tw,tx.	28
12	MUSCARINIC ANTAGONISTS.kw.	15
13	(antimuscarinic$ or (anti adj muscarinic$)).tw,tx.	35
14	CHOLINERGIC ANTAGONISTS.kw.	44
15	(anticholinergic$ or (anti adj cholinergic$)).tw,tx.	337
16	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw,tx.	103
17	tolterodine.tw,tx.	17
18	darifenacin$.tw,tx.	8
19	solifenacin$.tw,tx.	7
20	trospium.tw,tx.	9
21	propiverine.tw,tx.	10
22	fesoterodine.tw,tx.	5
23	or/10-22	386
24	and/9,23	65
25	limit 24 to last year	29

Cinahl Ebsco - UI_update_drugs_cinahl_020611

#	Query	Limiters/Expanders	Last Run Via	Results
S44	S24 and S42	Limiters - Published Date from: 20060101-20110631; Exclude MEDLINE records; Language: English; Age Groups: All Adult Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	23
S43	S24 and S42	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	440
S42	S25 or S26 or S27 or S28 or S29 or S30 or S31 or S32 or S33 or S34 or S35 or S36 or S37 or S38 or S39 or S40 or S41	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	1244
S41	AB (darifenacin or solifenacin or trospium or propiverine or fesoterodine)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	64
S40	TI (darifenacin or solifenacin or trospium or propiverine or fesoterodine)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	76
S39	(MH "TOLTERODINE")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	76
S38	AB (cholinergic N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	20
S37	TI (cholinergic N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	2

S36	AB (cholinergic N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	10
S35	TI (cholinergic N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	1
S34	AB (muscarinic* N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	12
S33	TI (muscarinic* N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	0
S32	AB (muscarinic* N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	45
S31	TI (muscarinic* N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	5
S30	TI (anti-muscarinic*) or AB (anti-muscarinic*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	8
S29	TI (anti-cholinergic*) or AB (anti-cholinergic*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	15
S28	(MH "CHOLINERGIC ANTAGONISTS")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	766
S27	(MH "MUSCARINIC	Search modes -	Interface - EBSCOhost Search Screen - Advanced	299

	ANTAGONISTS")	Boolean/Phrase	Search Database - CINAHL with Full Text	
S26	TI (oxybutynin) or AB (oxybutynin)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	128
S25	(MH "OXYBUTYNIN")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	104
S24	S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S23	TI (SUI) or AB (SUI)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S22	TI (nocuturia) or AB (nocturia)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S21	AB (destrusor* N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S20	TI (destrusor* N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S19	AB (detrusor* N3 instabilit*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S18	TI (detrusor* N3	Search modes -	Interface - EBSCOhost Search Screen - Advanced	Display

	instabilit*)	Boolean/Phrase	Search Database - CINAHL with Full Text	
S17	AB (urgency N3 frequency)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S16	TI (urgency N3 frequency)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S15	TI (OAB) or AB (OAB)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S14	AB (bladder* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S13	TI (bladder* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S12	AB (bladder * N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S11	TI (bladder * N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S10	AB (urin* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S9	TI (urin* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full	Display

			Text	
S8	AB (urg* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S7	TI (urg* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S6	AB (mixed N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S5	TI (mixed N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S4	AB (stress* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S3	TI (stress* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S2	(MH "OVERACTIVE BLADDER")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	Display
S1	(MH "URINARY INCONTINENCE") OR (MH "STRESS INCONTINENCE") OR (MH "URGE INCONTINENCE")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full	

#	Query	Limiters/Expanders	Last Run Via	Results

S44	S24 and S42	Limiters - Published Date from: 20120101-20121231; English Language; Exclude MEDLINE records Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	11
S43	S24 and S42	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	490
S42	S25 or S26 or S27 or S28 or S29 or S30 or S31 or S32 or S33 or S34 or S35 or S36 or S37 or S38 or S39 or S40 or S41	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	1,450
S41	AB (darifenacin or solifenacin or trospium or propiverine or fesoterodine)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	72
S40	TI (darifenacin or solifenacin or trospium or propiverine or fesoterodine)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	82
S39	(MH "TOLTERODINE")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	80
S38	AB (cholinergic N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	25
S37	TI (cholinergic N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	2
S36	AB (cholinergic N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	14

S35	TI (cholinergic N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	1
S34	AB (muscarinic* N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	15
S33	TI (muscarinic* N3 block*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	0
S32	AB (muscarinic* N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	52
S31	TI (muscarinic* N3 antagonist*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	7
S30	TI (anti-muscarinic*) or AB (anti-muscarinic*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	10
S29	TI (anti-cholinergic*) or AB (anti-cholinergic*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	17
S28	(MH "CHOLINERGIC ANTAGONISTS")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	871
S27	(MH "MUSCARINIC ANTAGONISTS")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	369
S26	TI (oxybutynin) or AB	Search modes -	Interface - EBSCOhost Search Screen - Advanced	148

	(oxybutynin)	Boolean/Phrase	Search Database - CINAHL with Full Text	
S25	(MH "OXYBUTYNIN")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	116
S24	S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	7,757
S23	TI (SUI) or AB (SUI)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	177
S22	TI (nocuturia) or AB (nocturia)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	225
S21	AB (destrusor* N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	0
S20	TI (destrusor* N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	0
S19	AB (detrusor* N3 instabilit*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	31
S18	TI (detrusor* N3 instabilit*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	16
S17	AB (urgency N3	Search modes -	Interface - EBSCOhost Search Screen - Advanced	186

	frequency)	Boolean/Phrase	Search Database - CINAHL with Full Text	
S16	TI (urgency N3 frequency)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	9
S15	TI (OAB) or AB (OAB)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	214
S14	AB (bladder* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	164
S13	TI (bladder* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	42
S12	AB (bladder * N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	321
S11	TI (bladder * N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	422
S10	AB (urin* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	2,322
S9	TI (urin* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	2,207
S8	AB (urg* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full	399

			Text	
S7	TI (urg* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	117
S6	AB (mixed N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	87
S5	TI (mixed N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	28
S4	AB (stress* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	598
S3	TI (stress* N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	541
S2	(MH "OVERACTIVE BLADDER")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	565
S1	(MH "URINARY INCONTINENCE") OR (MH "STRESS INCONTINENCE") OR (MH "URGE INCONTINENCE")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	6,301

Database(s): Embase 1980 to 2011 Week 21
Search Strategy: UI_update_drugs_embase_020611

#	Searches	Results
1	CLINICAL TRIALS/	2371
2	(clinic$ adj5 trial$).ti,ab,sh.	210513
3	SINGLE BLIND PROCEDURE/	13866

4	DOUBLE BLIND PROCEDURE/	100300
5	RANDOM ALLOCATION/	53550
6	CROSSOVER PROCEDURE/	30366
7	PLACEBO/	178838
8	placebo$.ti,ab,sh.	251150
9	random$.ti,ab,sh.	731494
10	RANDOMIZED CONTROLLED TRIALS/	3658
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	128898
12	randomi?ed control$ trial$.tw.	63640
13	or/1-12	1015871
14	META ANALYSIS/	54862
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	74862
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	51278
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	3049
18	or/14-17	108557
19	review.pt.	1699771
20	(medline or medlars or embase).ab.	47585
21	(scisearch or science citation index).ab.	1832
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	25971
23	((hand or manual$) adj2 search$).tw.	5759
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	10002
25	(pooling or pooled or mantel haenszel).tw.	43901
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	2520
27	or/20-26	101486
28	and/19,27	39725
29	or/18,28	128253
30	(book or conference paper or editorial or letter or note or proceeding or short survey).pt.	2528089
31	13 not 30	930643
32	29 not 30	113906
33	or/31-32	992577
34	URINE INCONTINENCE/ or MIXED INCONTINENCE/ or STRESS INCONTINENCE/ or URGE INCONTINENCE/	35526
35	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	23892
36	OVERACTIVE BLADDER/	4606
37	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	4566
38	OAB.ti,ab.	1594

39	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1006
40	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3123
41	NOCTURIA/	2678
42	nocturi$.ti,ab.	2158
43	or/34-42	45408
44	OXYBUTYNIN/	3862
45	oxybutynin.ti,ab.	1165
46	MUSCARINIC RECEPTOR BLOCKING AGENT/	5339
47	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	2192
48	CHOLINERGIC RECEPTOR BLOCKING AGENT/	21748
49	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	10658
50	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	8751
51	TOLTERODINE/	2218
52	DARIFENACIN/	808
53	SOLIFENACIN/	768
54	TROSPIUM CHLORIDE/	879
55	PROPIVERINE/	771
56	FESOTERODINE/	225
57	(tolterodine or darifenacin or solifenacin or trospium or propiverine or fesoterodine).ti,ab.	1527
58	or/44-57	42631
59	and/33,43,58	1258
60	limit 59 to english language	1181
61	limit 60 to yr="2006 -Current"	764
62	limit 61 to (adult <18 to 64 years> or aged <65+ years>)	260

Database(s): Embase 1980 to 2012 Week 46
Search Strategy: UI_update_drugs_embase_rerun2_261112

#	Searches	Results
1	CLINICAL TRIAL/ or "CLINICAL TRIAL (TOPIC)"/	891998
2	(clinic$ adj5 trial$).ti,ab,sh.	259331
3	SINGLE BLIND PROCEDURE/	16651
4	DOUBLE BLIND PROCEDURE/	111855
5	RANDOM ALLOCATION/	60017
6	CROSSOVER PROCEDURE/	35530
7	PLACEBO/	208296
8	placebo$.ti,ab,sh.	288329

9	random$.ti,ab,sh.	884099
10	RANDOMIZED CONTROLLED TRIAL/ or "RANDOMIZED CONTROLLED TRIAL (TOPIC)"/	354405
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	146650
12	randomi?ed control$ trial$.tw.	83772
13	or/1-12	1608728
14	META ANALYSIS/	67163
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	96143
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	70341
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	3602
18	or/14-17	142339
19	review.pt.	1892660
20	(medline or medlars or embase).ab.	61003
21	(scisearch or science citation index).ab.	2175
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	35102
23	((hand or manual$) adj2 search$).tw.	7228
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	13569
25	(pooling or pooled or mantel haenszel).tw.	55190
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	3291
27	or/20-26	129359
28	and/19,27	49478
29	or/18,28	164854
30	(book or conference paper or editorial or letter or note or proceeding or short survey).pt.	2798685
31	13 not 30	1435416
32	29 not 30	147991
33	or/31-32	1498999
34	URINE INCONTINENCE/ or MIXED INCONTINENCE/ or STRESS INCONTINENCE/ or URGE INCONTINENCE/	41050
35	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	27994
36	OVERACTIVE BLADDER/	6376
37	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	5932
38	OAB.ti,ab.	2257
39	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1234
40	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3809
41	NOCTURIA/	3390
42	nocturi$.ti,ab.	2710
43	or/34-42	53246

44	OXYBUTYNIN/	4250
45	oxybutynin.ti,ab.	1334
46	MUSCARINIC RECEPTOR BLOCKING AGENT/	6020
47	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	2570
48	CHOLINERGIC RECEPTOR BLOCKING AGENT/	23646
49	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	11975
50	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	9387
51	TOLTERODINE/	2539
52	DARIFENACIN/	943
53	SOLIFENACIN/	935
54	TROSPIUM CHLORIDE/	993
55	PROPIVERINE/	956
56	FESOTERODINE/	339
57	(tolterodine or darifenacin or solifenacin or trospium or propiverine or fesoterodine).ti,ab.	1860
58	or/44-57	46663
59	and/33,43,58	1975
60	limit 59 to yr="2012 -Current"	142
61	limit 60 to english language	139

Database(s): EBM Reviews - Health Technology Assessment 4th Quarter 2012
Search Strategy: UI_update_drugs_hta_rerun2_261112

#	Searches	Results
1	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	56
2	URINARY BLADDER, OVERACTIVE/	4
3	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw.	62
4	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	5
5	OAB.tw.	2
6	((urgency adj frequency) or (frequency adj urgency)).tw.	4
7	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	2
8	nocturia.tw.	0
9	SUI.tw.	1
10	or/1-9	67
11	exp MANDELIC ACIDS/	0
12	oxybutynin$.tw.	2
13	exp MUSCARINIC ANTAGONISTS/	3

14	(antimuscarinic$ or (anti adj muscarinic$)).tw.	2
15	CHOLINERGIC ANTAGONISTS/	0
16	(anticholinergic$ or (anti adj cholinergic$)).tw.	5
17	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).tw.	1
18	tolterodine.tw.	1
19	darifenacin$.tw.	1
20	solifenacin$.tw.	0
21	trospium.tw.	0
22	propiverine.tw.	0
23	fesoterodine.tw.	0
24	or/11-23	10
25	and/10,24	3
26	limit 25 to yr="2012 -Current"	3

Database(s): Ovid MEDLINE(R) 1948 to May Week 3 2011
Search Strategy: UI_update_drugs_medline_010611

#	Searches	Results
1	randomized controlled trial.pt.	306162
2	controlled clinical trial.pt.	82354
3	DOUBLE BLIND METHOD/	109821
4	SINGLE BLIND METHOD/	14916
5	RANDOM ALLOCATION/	71418
6	RANDOMIZED CONTROLLED TRIALS/	73001
7	or/1-6	516449
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	108239
9	clinical trial.pt.	462110
10	exp CLINICAL TRIAL/	638585
11	exp CLINICAL TRIALS AS TOPIC/	241000
12	(clinic$ adj5 trial$).tw,sh.	164227
13	PLACEBOS/	29593
14	placebo$.tw,sh.	141559
15	random$.tw,sh.	671463
16	or/8-15	1157449
17	or/7,16	1162365
18	META ANALYSIS/	28426
19	META ANALYSIS AS TOPIC/	11214

20	meta analysis.pt.	28426
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	49120
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	29672
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2425
24	or/18-23	70412
25	review$.pt.	1605145
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	44816
27	((hand or manual$) adj2 search$).tw.	4648
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	7849
29	(pooling or pooled or mantel haenszel).tw,sh.	36966
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	1978
31	or/26-30	84244
32	and/25,31	39044
33	or/24,32	90716
34	letter.pt.	714172
35	case report.tw.	157878
36	comment.pt.	439640
37	editorial.pt.	275162
38	historical article.pt.	274265
39	or/34-38	1478045
40	17 not 39	1118316
41	33 not 39	85722
42	or/40-41	1162813
43	URINARY INCONTINENCE/	16020
44	URINARY INCONTINENCE, STRESS/	7827
45	URINARY BLADDER, OVERACTIVE/	1348
46	URGE INCONTINENCE/	310
47	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	18229
48	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	2956
49	OAB.ti,ab.	781
50	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	717
51	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2266
52	nocturia.tw.	1514
53	SUI.ti,ab.	1284
54	or/43-53	31391

55	exp mandelic acids/	4230
56	oxybutynin$.ti,ab.	872
57	exp Muscarinic Antagonists/	46302
58	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	1662
59	CHOLINERGIC ANTAGONISTS/	2908
60	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	8665
61	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	7952
62	tolterodine.ti,ab.	525
63	darifenacin$.ti,ab.	200
64	solifenacin$.ti,ab.	194
65	trospium.ti,ab.	142
66	propiverine.ti,ab.	193
67	fesoterodine.ti,ab.	59
68	or/55-67	61914
69	and/54,68	2130
70	and/42,69	819
71	limit 70 to english language	739
72	limit 71 to (animals and humans)	39
73	limit 71 to animals	41
74	73 not 72	2
75	71 not 74	737
76	limit 75 to yr="2006 -Current"	383

Database(s): Ovid MEDLINE(R) 1946 to November Week 3 2012
Search Strategy: UI_update_drugs_medline_rerun2_261112

#	Searches	Results
1	randomized controlled trial.pt.	342057
2	controlled clinical trial.pt.	85675
3	DOUBLE BLIND METHOD/	118432
4	SINGLE BLIND METHOD/	17072
5	RANDOM ALLOCATION/	76571
6	RANDOMIZED CONTROLLED TRIALS/	84859
7	or/1-6	573128
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	117198
9	clinical trial.pt.	476279
10	exp CLINICAL TRIAL/	705716

11	exp CLINICAL TRIALS AS TOPIC/	264246
12	(clinic$ adj5 trial$).tw,sh.	191481
13	PLACEBOS/	31568
14	placebo$.tw,sh.	154693
15	random$.tw,sh.	757795
16	or/8-15	1295182
17	or/7,16	1300437
18	META ANALYSIS/	37837
19	META ANALYSIS AS TOPIC/	12594
20	meta analysis.pt.	37837
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	62670
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	40689
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2861
24	or/18-23	90948
25	review$.pt.	1757173
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	57079
27	((hand or manual$) adj2 search$).tw.	5667
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	10259
29	(pooling or pooled or mantel haenszel).tw,sh.	43286
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	2509
31	or/26-30	102900
32	and/25,31	50119
33	or/24,32	114652
34	letter.pt.	766761
35	case report.tw.	171300
36	comment.pt.	493362
37	editorial.pt.	310895
38	historical article.pt.	290561
39	or/34-38	1608659
40	17 not 39	1251981
41	33 not 39	108788
42	or/40-41	1308937
43	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	26537
44	URINARY BLADDER, OVERACTIVE/	1894

45	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	19667
46	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3526
47	OAB.ti,ab.	1050
48	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	781
49	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2507
50	nocturia.tw.	1738
51	SUI.ti,ab.	1532
52	or/43-51	34350
53	exp MANDELIC ACIDS/	4366
54	oxybutynin$.ti,ab.	945
55	exp MUSCARINIC ANTAGONISTS/	48365
56	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	1847
57	CHOLINERGIC ANTAGONISTS/	3297
58	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	9292
59	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	8382
60	tolterodine.ti,ab.	600
61	darifenacin$.ti,ab.	230
62	solifenacin$.ti,ab.	241
63	trospium.ti,ab.	159
64	propiverine.ti,ab.	216
65	fesoterodine.ti,ab.	90
66	or/53-65	65004
67	and/52,66	2410
68	and/42,67	953
69	limit 68 to yr="2012 -Current"	37
70	limit 69 to "all adult (19 plus years)"	26
71	limit 70 to english language	24

Database(s): Ovid MEDLINE(R) 1948 to May Week 4 2011
Search Strategy: UI_update_drugs_medline_020611

#	Searches	Results
1	randomized controlled trial.pt.	306533
2	controlled clinical trial.pt.	82376
3	DOUBLE BLIND METHOD/	109923
4	SINGLE BLIND METHOD/	14937
5	RANDOM ALLOCATION/	71486

6	RANDOMIZED CONTROLLED TRIALS/	73099
7	or/1-6	517011
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	108356
9	clinical trial.pt.	462210
10	exp CLINICAL TRIAL/	639177
11	exp CLINICAL TRIALS AS TOPIC/	241221
12	(clinic$ adj5 trial$).tw,sh.	164494
13	PLACEBOS/	29613
14	placebo$.tw,sh.	141696
15	random$.tw,sh.	672339
16	or/8-15	1158764
17	or/7,16	1163682
18	META ANALYSIS/	28502
19	META ANALYSIS AS TOPIC/	11230
20	meta analysis.pt.	28502
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	49227
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	29756
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2430
24	or/18-23	70572
25	review$.pt.	1606697
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	44934
27	((hand or manual$) adj2 search$).tw.	4657
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	7868
29	(pooling or pooled or mantel haenszel).tw,sh.	37026
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	1982
31	or/26-30	84428
32	and/25,31	39134
33	or/24,32	90907
34	letter.pt.	714762
35	case report.tw.	158083
36	comment.pt.	440257
37	editorial.pt.	275542
38	historical article.pt.	274386
39	or/34-38	1479526
40	17 not 39	1119582

41	33 not 39	85900
42	or/40-41	1164174
43	URINARY INCONTINENCE/	16036
44	URINARY INCONTINENCE, STRESS/	7843
45	URINARY BLADDER, OVERACTIVE/	1354
46	URGE INCONTINENCE/	313
47	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	18253
48	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	2959
49	OAB.ti,ab.	782
50	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	717
51	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2269
52	nocturia.tw.	1517
53	SUI.ti,ab.	1288
54	or/43-53	31434
55	exp MANDELIC ACIDS/	4230
56	oxybutynin$.ti,ab.	872
57	exp MUSCARINIC ANTAGONISTS/	46314
58	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	1664
59	CHOLINERGIC ANTAGONISTS/	2908
60	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	8672
61	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	7954
62	tolterodine.ti,ab.	527
63	darifenacin$.ti,ab.	200
64	solifenacin$.ti,ab.	194
65	trospium.ti,ab.	142
66	propiverine.ti,ab.	193
67	fesoterodine.ti,ab.	59
68	or/55-67	61932
69	and/54,68	2134
70	and/42,69	820
71	limit 70 to english language	740
72	limit 71 to (animals and humans)	39
73	limit 71 to animals	41
74	73 not 72	2
75	71 not 74	738
76	limit 75 to yr="2006 -Current"	384

77	limit 76 to "all adult (19 plus years)"	252

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations May 31, 2011
Search Strategy: UI_update_drugs_MiP_010611

#	Searches	Results
1	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	742
2	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	263
3	OAB.ti,ab.	127
4	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	45
5	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	130
6	nocturia.tw.	91
7	SUI.ti,ab.	117
8	or/1-7	1093
9	oxybutynin$.ti,ab.	52
10	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	87
11	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	261
12	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	136
13	tolterodine.ti,ab.	48
14	darifenacin$.ti,ab.	10
15	solifenacin$.ti,ab.	18
16	trospium.ti,ab.	10
17	propiverine.ti,ab.	16
18	fesoterodine.ti,ab.	9
19	or/9-18	514
20	and/8,19	138

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations November 21, 2012
Search Strategy: UI_update_drugs_mip_rerun2_261112

#	Searches	Results
1	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1061
2	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	381
3	OAB.ti,ab.	156
4	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	74
5	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	141
6	nocturia.tw.	116

7	SUI.ti,ab.	157
8	or/1-7	1504
9	oxybutynin$.ti,ab.	65
10	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	120
11	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	363
12	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	166
13	tolterodine.ti,ab.	50
14	darifenacin$.ti,ab.	11
15	solifenacin$.ti,ab.	28
16	trospium.ti,ab.	12
17	propiverine.ti,ab.	13
18	fesoterodine.ti,ab.	9
19	or/9-18	676
20	and/8,19	181

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 3rd Quarter 2011
Search Strategy: UI_update_drugs_economic_cctr_290711

#	Searches	Results
1	costs.tw.	6671
2	cost effective$.tw.	5340
3	economic.tw.	2989
4	or/1-3	11201
5	(metabolic adj cost).tw.	42
6	((energy or oxygen) adj cost).tw.	211
7	4 not (5 or 6)	11187
8	URINARY INCONTINENCE/	592
9	URINARY INCONTINENCE, STRESS/	433
10	URINARY BLADDER, OVERACTIVE/	152
11	URGE INCONTINENCE/	44
12	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1832
13	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	548
14	OAB.ti,ab.	181
15	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	147
16	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	348
17	nocturia.tw.	218
18	SUI.ti,ab.	168

19	or/8-18	2759
20	exp MANDELIC ACIDS/	244
21	oxybutynin$.ti,ab.	275
22	exp MUSCARINIC ANTAGONISTS/	2760
23	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	268
24	CHOLINERGIC ANTAGONISTS/	202
25	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	1757
26	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	359
27	tolterodine.ti,ab.	278
28	darifenacin$.ti,ab.	41
29	solifenacin$.ti,ab.	61
30	trospium.ti,ab.	86
31	propiverine.ti,ab.	54
32	fesoterodine.ti,ab.	36
33	or/20-32	4934
34	and/19,33	597
35	and/7,34	8
36	limit 35 to yr="2006 -Current"	4

Database(s): Embase 1980 to 2011 Week 29
Search Strategy: UI_update_drugs_economic_embase_290711

#	Searches	Results
1	costs.tw.	119952
2	cost effective$.tw.	70702
3	economic.tw.	105626
4	or/1-3	255251
5	(metabolic adj cost).tw.	649
6	((energy or oxygen) adj cost).tw.	2529
7	4 not (5 or 6)	254940
8	URINE INCONTINENCE/ or MIXED INCONTINENCE/ or STRESS INCONTINENCE/ or URGE INCONTINENCE/	35676
9	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	23924
10	OVERACTIVE BLADDER/	4710
11	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	4609
12	OAB.ti,ab.	1618
13	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1013

14	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3155
15	NOCTURIA/	2733
16	nocturi$.ti,ab.	2167
17	or/8-16	45610
18	OXYBUTYNIN/	3899
19	oxybutynin.ti,ab.	1167
20	MUSCARINIC RECEPTOR BLOCKING AGENT/	5317
21	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	2206
22	CHOLINERGIC RECEPTOR BLOCKING AGENT/	21813
23	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	10660
24	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	8764
25	TOLTERODINE/	2243
26	DARIFENACIN/	827
27	SOLIFENACIN/	792
28	TROSPIUM CHLORIDE/	893
29	PROPIVERINE/	788
30	FESOTERODINE/	239
31	(tolterodine or darifenacin or solifenacin or trospium or propiverine or fesoterodine).ti,ab.	1543
32	or/18-31	42728
33	and/17,32	5024
34	and/7,33	170
35	limit 34 to yr="2006 -Current"	97

Database(s): EBM Reviews - Health Technology Assessment 3rd Quarter 2011
Search Strategy: UI_update_drugs_economic_hta_290711

#	Searches	Results
1	URINARY INCONTINENCE/	31
2	URINARY INCONTINENCE, STRESS/	28
3	URINARY BLADDER, OVERACTIVE/	2
4	URGE INCONTINENCE/	0
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,tw.	69
6	(bladder$ adj3 (overactiv$ or incontinen$)).ti,tw.	3
7	OAB.ti,tw.	1
8	((urgency adj frequency) or (frequency adj urgency)).ti,tw.	3
9	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,tw.	1
10	nocturia.ti,tw.	0

11	SUI.ti,tw.	4
12	or/1-11	72
13	exp MANDELIC ACIDS/	0
14	oxybutynin$.ti,ab.	1
15	exp MUSCARINIC ANTAGONISTS/	1
16	(antimuscarinic$ or (anti adj muscarinic$)).ti,tw.	0
17	CHOLINERGIC ANTAGONISTS/	0
18	(anticholinergic$ or (anti adj cholinergic$)).ti,tw.	6
19	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,tw.	0
20	tolterodine.ti,tw.	0
21	darifenacin$.ti,tw.	0
22	solifenacin$.ti,tw.	0
23	trospium.ti,tw.	0
24	propiverine.ti,tw.	0
25	fesoterodine.ti,tw.	0
26	or/13-25	8
27	and/12,26	1

Database(s): Ovid MEDLINE(R) 1948 to July Week 3 2011
Search Strategy: UI_update_drugs_economic_medline_290711

#	Searches	Results
1	costs.tw.	95506
2	cost effective$.tw.	55632
3	economic.tw.	87998
4	or/1-3	207317
5	(metabolic adj cost).tw.	603
6	((energy or oxygen) adj cost).tw.	2327
7	4 not (5 or 6)	207031
8	URINARY INCONTINENCE/	16173
9	URINARY INCONTINENCE, STRESS/	7914
10	URINARY BLADDER, OVERACTIVE/	1437
11	URGE INCONTINENCE/	336
12	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	18461
13	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3050
14	OAB.ti,ab.	816
15	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	728

16	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2321
17	nocturia.tw.	1547
18	SUI.ti,ab.	1318
19	or/8-18	31836
20	exp MANDELIC ACIDS/	4252
21	oxybutynin$.ti,ab.	891
22	exp MUSCARINIC ANTAGONISTS/	46546
23	(antimuscarinic$ or (anti adj muscarinic$)).ti,ab.	1693
24	CHOLINERGIC ANTAGONISTS/	2975
25	(anticholinergic$ or (anti adj cholinergic$)).ti,ab.	8771
26	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,ab.	8026
27	tolterodine.ti,ab.	538
28	darifenacin$.ti,ab.	203
29	solifenacin$.ti,ab.	200
30	trospium.ti,ab.	144
31	propiverine.ti,ab.	199
32	fesoterodine.ti,ab.	63
33	or/20-32	62330
34	and/19,33	2180
35	and/7,34	64
36	limit 35 to yr="2006 -Current"	37

Database(s): EBM Reviews - NHS Economic Evaluation Database 3rd Quarter 2011
Search Strategy: UI_update_drugs_economic_nhseed_290711

#	Searches	Results
1	URINARY INCONTINENCE/	16
2	URINARY INCONTINENCE, STRESS/	23
3	URINARY BLADDER, OVERACTIVE/	8
4	URGE INCONTINENCE/	2
5	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,tw.	63
6	(bladder$ adj3 (overactiv$ or incontinen$)).ti,tw.	16
7	OAB.ti,tw.	6
8	((urgency adj frequency) or (frequency adj urgency)).ti,tw.	4
9	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,tw.	8
10	nocturia.ti,tw.	6
11	SUI.ti,tw.	7

12	or/1-11	75
13	exp MANDELIC ACIDS/	5
14	oxybutynin$.ti,ab.	6
15	exp MUSCARINIC ANTAGONISTS/	25
16	(antimuscarinic$ or (anti adj muscarinic$)).ti,tw.	3
17	CHOLINERGIC ANTAGONISTS/	4
18	(anticholinergic$ or (anti adj cholinergic$)).ti,tw.	27
19	((muscarinic$ or cholinergic$) adj3 (antagonist$ or block$)).ti,tw.	16
20	tolterodine.ti,tw.	10
21	darifenacin$.ti,tw.	1
22	solifenacin$.ti,tw.	6
23	trospium.ti,tw.	1
24	propiverine.ti,tw.	1
25	fesoterodine.ti,tw.	1
26	or/13-25	51
27	and/12,26	14

BoNT-A

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 2nd Quarter 2011
Search Strategy: UI_update_botox_cctr_120711

#	Searches	Results
1	URINARY INCONTINENCE/	587
2	URINARY BLADDER, OVERACTIVE/	144
3	URGE INCONTINENCE/	41
4	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1548
5	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	535
6	OAB.ti,ab.	172
7	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	145
8	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	345
9	nocturia.tw.	216
10	or/1-9	2438
11	exp BOTULINUM TOXINS/	151
12	botulinum$.ti,ab.	894
13	(BTA or BTX or BoNT$ or BoTx).ti,ab.	307
14	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	272

15	"onabotulinumtoxin a".ti,ab.	0
16	bonta$.ti,ab.	30
17	or/11-16	955
18	and/10,17	67

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials November 2012
Search Strategy: UI_update_botox_cctr_rerun2_281112

#	Searches	Results
1	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	1253
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1923
3	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	587
4	OAB.ti,ab.	204
5	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	152
6	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	363
7	nocturia.tw.	235
8	SUI.ti,ab.	181
9	or/1-8	2907
10	exp BOTULINUM TOXINS/	658
11	botulinum$.ti,ab.	957
12	(BTA or BTX or BoNT$ or BoTx).ti,ab.	329
13	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	290
14	"onabotulinumtoxin a".ti,ab.	0
15	bonta$.ti,ab.	38
16	or/10-15	1036
17	or/10-16	1036
18	and/9,17	77
19	limit 18 to yr="2012 -Current"	0

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to June 2011, EBM Reviews - Database of Abstracts of Reviews of Effects 2nd Quarter 2011
Search Strategy: UI_update_botox_cdsrdare_120711

#	Searches	Results
1	URINARY INCONTINENCE.kw.	125
2	URINARY BLADDER, OVERACTIVE.kw.	15

3	URGE INCONTINENCE.kw.	0
4	((mix$ or urg$ or urin$) adj3 incontinen$).tw,tx.	253
5	(bladder$ adj3 (overactiv$ or incontinen$)).tw,tx.	55
6	OAB.tw,tx.	13
7	((urgency adj frequency) or (frequency adj urgency)).tw,tx.	68
8	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	58
9	nocturia.tw,tx.	53
10	or/1-9	305
11	BOTULINUM TOXINS.kw.	36
12	botulinum$.tw,tx.	128
13	(BTA or BTX or BoNT$ or BoTx).tw,tx.	66
14	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).tw,tx.	43
15	"onabotulinumtoxin A".ti,ab.	0
16	bonta$.ti,ab.	0
17	or/11-16	153
18	and/10,17	15

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to November 2012, EBM Reviews - Database of Abstracts of Reviews of Effects 4th Quarter 2012
Search Strategy: UI_update_botox_cdsrdare_rerun2_281112

#	Searches	Results
1	(LOWER URINARY TRACT SYMPTOMS or DYSURIA or NOCTURIA or URINARY BLADDER, OVERACTIVE or URINARY INCONTINENCE or URINARY INCONTINENCE, STRESS or URINARY INCONTINENCE, URGE).kw.	154
2	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).tw,tx.	303
3	(bladder$ adj3 (overactiv$ or incontinen$)).tw,tx.	66
4	OAB.tw,tx.	18
5	((urgency adj frequency) or (frequency adj urgency)).tw,tx.	75
6	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	67
7	nocturia.tw,tx.	60
8	or/1-7	361
9	BOTULINUM TOXINS.kw.	53
10	botulinum$.tw,tx.	154
11	(BTA or BTX or BoNT$ or BoTx).tw,tx.	78
12	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).tw,tx.	47

13	"onabotulinumtoxin A".tw,tx.	0
14	bonta$.tw,tx.	3
15	or/9-14	186
16	and/8,15	19
17	limit 16 to last year	12

#	Query	Limiters/Expanders	Last Run Via	Results
S19	S12 and S17	Limiters - Exclude MEDLINE records Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	47
S18	S12 and S17	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	105
S17	S13 or S14 or S15 or S16	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	2109
S16	TI (bonta) or AB (bonta)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	19
S15	TI (botox) or AB (botox)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	342
S14	TI (botulinum*) or AB (botulinum*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	1336
S13	(MH "BOTULINUM TOXINS")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	1895
S12	S1 or S2 or S3 or S4 or S5	Search modes -	Interface - EBSCOhost	6957

	or S6 or S7 or S8 or S9 or S10 or S11	Boolean/Phrase	Search Screen - Advanced Search Database - CINAHL with Full Text	
S11	TI (detrusor N3 overactiv*) or AB (detrusor N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	91
S10	TI (detrusor N3 instabil*) or AB (detrusor N3 instabil*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	44
S9	TI (urgency N3 frequency) or AB (urgency N3 frequency)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	178
S8	TI (OAB) or AB (OAB)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	178
S7	TI (bladder N3 incontin*) or AB (bladder N3 incontin*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	182
S6	TI (bladder N3 overactiv*) or AB (bladder N3 overactiv*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	482
S5	TI (urinary N3 incont*) or AB (urinary N3 incont*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	3153
S4	TI (urge N3 incontinen*) or AB (urge N3 incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	335
S3	TI (mix* N3 Incontinen*) or AB (mix* N3 Incontinen*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search	92

			Database - CINAHL with Full Text	
S2	(MH "OVERACTIVE BLADDER") OR (MH "ENURESIS") OR (MH "ENURESIS,NOCTURNAL")	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	947
S1	(MH "URINARY INCONTINENCE"# OR #MH "URGE INCONTINENCE"#	Search modes - Boolean/Phrase	Interface - EBSCOhost Search Screen - Advanced Search Database - CINAHL with Full Text	

Database(s): Embase 1980 to 2011 Week 27
Search Strategy: UI_update_botox_embase_120711

#	Searches	Results
1	CLINICAL TRIALS/	3617
2	(clinic$ adj5 trial$).ti,ab,sh.	209375
3	SINGLE BLIND PROCEDURE/	13680
4	DOUBLE BLIND PROCEDURE/	99051
5	RANDOM ALLOCATION/	53175
6	CROSSOVER PROCEDURE/	29993
7	PLACEBO/	180511
8	placebo$.ti,ab,sh.	251125
9	random$.ti,ab,sh.	726239
10	RANDOMIZED CONTROLLED TRIALS/	4690
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	128067
12	randomi?ed control$ trial$.tw.	63137
13	or/1-12	1010718
14	META ANALYSIS/	54383
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	74561
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	51316
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	3025
18	or/14-17	108302
19	review.pt.	1684185
20	(medline or medlars or embase).ab.	47304
21	(scisearch or science citation index).ab.	1814
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	25934

23	((hand or manual$) adj2 search$).tw.	5740
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	9982
25	(pooling or pooled or mantel haenszel).tw.	43829
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	2520
27	or/20-26	101153
28	and/19,27	39180
29	or/18,28	127699
30	(book or conference paper or editorial or letter or note or proceeding or short survey).pt.	2525300
31	13 not 30	925418
32	29 not 30	113352
33	or/31-32	986987
34	URINE INCONTINENCE/ or MICTURITION DISORDER/ or exp ENURESIS/ or MIXED INCONTINENCE/ or URGE INCONTINENCE/	40291
35	OVERACTIVE BLADDER/	4659
36	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	21640
37	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	4569
38	OAB.ti,ab.	1601
39	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1009
40	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3141
41	nocturia.ti,ab.	2154
42	or/34-41	52646
43	BOTULINUM TOXIN/ or BOTULINUM TOXIN A/	16921
44	botulinum$.ti,ab.	13267
45	(BTA or BTX or BoNT$ or BoTx).ti,ab.	4339
46	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	1718
47	"onabotulinumtoxin A".ti,ab.	12
48	bonta$.ti,ab.	182
49	or/43-48	21083
50	and/42,49	1185
51	and/33,50	305
52	limit 51 to english language	287

Database(s): Embase 1980 to 2012 Week 47
Search Strategy: UI_update_botox_embase_rerun2_281112

#	Searches	Results
1	CLINICAL TRIAL/ or "CLINICAL TRIAL (TOPIC)"/	892361
2	(clinic$ adj5 trial$).ti,ab,sh.	259801
3	SINGLE BLIND PROCEDURE/	16668
4	DOUBLE BLIND PROCEDURE/	111920
5	RANDOM ALLOCATION/	60042
6	CROSSOVER PROCEDURE/	35555
7	PLACEBO/	208557
8	placebo$.ti,ab,sh.	288631
9	random$.ti,ab,sh.	885188
10	RANDOMIZED CONTROLLED TRIAL/ or "RANDOMIZED CONTROLLED TRIAL (TOPIC)"/	354927
11	((single or double or triple or treble) adj (blind$ or mask$)).ti,ab,sh.	146752
12	randomi?ed control$ trial$.tw.	83970
13	or/1-12	1610345
14	META ANALYSIS/	67318
15	((meta adj analy$) or metaanalys$ or meta-analy$).ti,ab,sh.	96401
16	(systematic$ adj5 (review$ or overview$)).ti,sh,ab.	70630
17	(methodologic$ adj5 (review$ or overview$)).ti,ab,sh.	3606
18	or/14-17	142792
19	review.pt.	1894235
20	(medline or medlars or embase).ab.	61182
21	(scisearch or science citation index).ab.	2175
22	(psychlit or psyclit or psychinfo or psycinfo or cinahl or cochrane).ab.	35214
23	((hand or manual$) adj2 search$).tw.	7244
24	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw.	13607
25	(pooling or pooled or mantel haenszel).tw.	55296
26	(peto or dersimonian or "der simonian" or fixed effect).tw.	3302
27	or/20-26	129680
28	and/19,27	49570
29	or/18,28	165330
30	(book or conference paper or editorial or letter or note or proceeding or short survey).pt.	2800578
31	13 not 30	1436937
32	29 not 30	148449

33	or/31-32	1500781
34	URINE INCONTINENCE/ or MICTURITION DISORDER/ or exp ENURESIS/ or MIXED INCONTINENCE/ or URGE INCONTINENCE/	45537
35	OVERACTIVE BLADDER/	6407
36	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	25630
37	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	5958
38	OAB.ti,ab.	2277
39	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1235
40	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3813
41	nocturia.ti,ab.	2705
42	or/34-41	60939
43	BOTULINUM TOXIN/ or BOTULINUM TOXIN A/	20022
44	botulinum$.ti,ab.	15651
45	(BTA or BTX or BoNT$ or BoTx).ti,ab.	5342
46	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	2204
47	"onabotulinumtoxin A".ti,ab.	40
48	bonta$.ti,ab.	238
49	or/43-48	24790
50	and/42,49	1555
51	and/33,50	527
52	limit 51 to yr="2012 -Current"	55
53	limit 52 to english language	53

Database(s): Ovid MEDLINE(R) 1948 to June Week 5 2011
Search Strategy: UI_update_botox_medline_120711

#	Searches	Results
1	randomized controlled trial.pt.	310972
2	controlled clinical trial.pt.	82823
3	DOUBLE BLIND METHOD/	111312
4	SINGLE BLIND METHOD/	15216
5	RANDOM ALLOCATION/	72035
6	RANDOMIZED CONTROLLED TRIALS/	74406
7	or/1-6	523811
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	109732
9	clinical trial.pt.	464506
10	exp CLINICAL TRIAL/	647208

11	exp CLINICAL TRIALS AS TOPIC/	243759
12	(clinic$ adj5 trial$).tw,sh.	167525
13	PLACEBOS/	29857
14	placebo$.tw,sh.	143809
15	random$.tw,sh.	682115
16	or/8-15	1174365
17	or/7,16	1179325
18	META ANALYSIS/	29405
19	META ANALYSIS AS TOPIC/	11417
20	meta analysis.pt.	29405
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	50564
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	30702
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2465
24	or/18-23	72500
25	review$.pt.	1622500
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	46175
27	((hand or manual$) adj2 search$).tw.	4758
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	8067
29	(pooling or pooled or mantel haenszel).tw,sh.	37747
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	2030
31	or/26-30	86359
32	and/25,31	40231
33	or/24,32	93202
34	letter.pt.	719275
35	case report.tw.	159446
36	comment.pt.	445188
37	editorial.pt.	278545
38	historical article.pt.	276257
39	or/34-38	1491669
40	17 not 39	1134693
41	33 not 39	88097
42	or/40-41	1180412
43	URINARY INCONTINENCE/	16140
44	URINARY BLADDER, OVERACTIVE/	1415
45	URGE INCONTINENCE/	334

46	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	16605
47	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3030
48	OAB.ti,ab.	808
49	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	728
50	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2310
51	nocturia.tw.	1540
52	or/43-51	28758
53	exp BOTULINUM TOXINS/	10196
54	botulinum$.ti,ab.	11003
55	(BTA or BTX or BoNT$ or BoTx).ti,ab.	3422
56	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	1258
57	"onabotulinumtoxin a".ti,ab.	1
58	bonta$.ti,ab.	114
59	or/53-58	14073
60	and/52,59	425
61	and/42,60	132
62	limit 61 to english language	119
63	limit 62 to (animals and humans)	9
64	limit 63 to animals	9
65	64 not 63	0
66	62 not 65	119

Database(s): Ovid MEDLINE(R) 1946 to November Week 3 2012
Search Strategy: UI_update_botox_medline_rerun2_281112

#	Searches	Results
1	randomized controlled trial.pt.	342057
2	controlled clinical trial.pt.	85675
3	DOUBLE BLIND METHOD/	118432
4	SINGLE BLIND METHOD/	17072
5	RANDOM ALLOCATION/	76571
6	RANDOMIZED CONTROLLED TRIALS/	84859
7	or/1-6	573128
8	((single or double or triple or treble) adj5 (blind$ or mask$)).tw,sh.	117198
9	clinical trial.pt.	476279
10	exp CLINICAL TRIAL/	705716

11	exp CLINICAL TRIALS AS TOPIC/	264246
12	(clinic$ adj5 trial$).tw,sh.	191481
13	PLACEBOS/	31568
14	placebo$.tw,sh.	154693
15	random$.tw,sh.	757795
16	or/8-15	1295182
17	or/7,16	1300437
18	META ANALYSIS/	37837
19	META ANALYSIS AS TOPIC/	12594
20	meta analysis.pt.	37837
21	(metaanaly$ or meta-analy$ or (meta adj analy$)).tw,sh.	62670
22	(systematic$ adj5 (review$ or overview$)).tw,sh.	40689
23	(methodologic$ adj5 (review$ or overview$)).tw,sh.	2861
24	or/18-23	90948
25	review$.pt.	1757173
26	(medline or medlars or embase or cinahl or cochrane or psycinfo or psychinfo or psychlit or psyclit or "web of science" or "science citation" or scisearch).tw.	57079
27	((hand or manual$) adj2 search$).tw.	5667
28	(electronic database$ or bibliographic database$ or computeri?ed database$ or online database$).tw,sh.	10259
29	(pooling or pooled or mantel haenszel).tw,sh.	43286
30	(peto or dersimonian or der simonian or fixed effect).tw,sh.	2509
31	or/26-30	102900
32	and/25,31	50119
33	or/24,32	114652
34	letter.pt.	766761
35	case report.tw.	171300
36	comment.pt.	493362
37	editorial.pt.	310895
38	historical article.pt.	290561
39	or/34-38	1608659
40	17 not 39	1251981
41	33 not 39	108788
42	or/40-41	1308937
43	LOWER URINARY TRACT SYMPTOMS/ or DYSURIA/ or NOCTURIA/ or URINARY BLADDER, OVERACTIVE/ or URINARY INCONTINENCE/ or URINARY INCONTINENCE, STRESS/ or URINARY INCONTINENCE, URGE/	26537
44	((stress$ or mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	19667

45	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3526
46	OAB.ti,ab.	1050
47	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	781
48	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2507
49	nocturia.tw.	1738
50	SUI.ti,ab.	1532
51	or/43-50	34350
52	exp BOTULINUM TOXINS/	11131
53	botulinum$.ti,ab.	12054
54	(BTA or BTX or BoNT$ or BoTx).ti,ab.	3892
55	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	1362
56	"onabotulinumtoxin a".ti,ab.	12
57	bonta$.ti,ab.	139
58	or/52-57	15419
59	or/52-58	15419
60	and/51,59	525
61	and/42,60	167
62	limit 61 to english language	152
63	limit 62 to (animals and humans)	12
64	limit 63 to animals	12
65	64 not 63	0
66	62 not 65	152
67	limit 66 to yr="2011 -Current"	33

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations November 27, 2012
Search Strategy: UI_update_botox_mip_rerun2_281112

#	Searches	Results
1	lower urinary tract symptom$.ti,ab.	404
2	LUTS.ti,ab.	198
3	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1017
4	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	382
5	OAB.ti,ab.	156
6	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	75
7	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	142
8	nocturia.tw.	116

9	or/1-8	1775
10	exp BOTULINUM TOXINS/	0
11	(BTA or BTX or BoNT$ or BoTx).ti,ab.	288
12	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	83
13	"onabotulinumtoxin a".ti,ab.	1
14	bonta$.ti,ab.	9
15	or/10-14	355
16	and/9,15	15

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 3rd Quarter 2011
Search Strategy: UI_update_botox_economic_cctr_110811

#	Searches	Results
1	costs.tw.	6671
2	cost effective$.tw.	5340
3	economic.tw.	2989
4	or/1-3	11201
5	(metabolic adj cost).tw.	42
6	((energy or oxygen) adj cost).tw.	211
7	4 not (5 or 6)	11187
8	URINARY INCONTINENCE/	592
9	URINARY BLADDER, OVERACTIVE/	152
10	URGE INCONTINENCE/	44
11	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	1575
12	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	548
13	OAB.ti,ab.	181
14	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	147
15	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	348
16	nocturia.tw.	218
17	or/8-16	2478
18	exp BOTULINUM TOXINS/	152
19	botulinum$.ti,ab.	918
20	(BTA or BTX or BoNT$ or BoTx).ti,ab.	315
21	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	275
22	"onabotulinumtoxin a".ti,ab.	0
23	bonta$.ti,ab.	34

24	or/18-23	979
25	and/17,24	69
26	and/7,25	1

Database(s): Embase 1980 to 2011 Week 32
Search Strategy: UI_update_botox_economic_embase_150811

#	Searches	Results
1	costs.tw.	120999
2	cost effective$.tw.	71322
3	economic.tw.	106603
4	or/1-3	257531
5	(metabolic adj cost).tw.	655
6	((energy or oxygen) adj cost).tw.	2540
7	4 not (5 or 6)	257219
8	URINE INCONTINENCE/ or MICTURITION DISORDER/ or exp ENURESIS/ or MIXED INCONTINENCE/ or URGE INCONTINENCE/	40843
9	OVERACTIVE BLADDER/	4875
10	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	22190
11	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	4745
12	OAB.ti,ab.	1700
13	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	1047
14	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3225
15	nocturia.ti,ab.	2205
16	or/8-15	53536
17	BOTULINUM TOXIN/ or BOTULINUM TOXIN A/	17122
18	botulinum$.ti,ab.	13429
19	(BTA or BTX or BoNT$ or BoTx).ti,ab.	4400
20	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	1766
21	"onabotulinumtoxin A".ti,ab.	12
22	bonta$.ti,ab.	184
23	or/17-22	21320
24	and/16,23	1217
25	and/7,24	55

Database(s): EBM Reviews - Health Technology Assessment 3rd Quarter 2011
Search Strategy: UI_update_botox_economic_hta_110811

#	Searches	Results
1	costs.tw.	1525
2	cost effective$.tw.	1387
3	economic.tw.	1009
4	or/1-3	2333
5	(metabolic adj cost).tw.	0
6	((energy or oxygen) adj cost).tw.	0
7	4 not (5 or 6)	2333
8	URINARY INCONTINENCE/	31
9	URINARY BLADDER, OVERACTIVE/	2
10	URGE INCONTINENCE/	0
11	((mix$ or urg$ or urin$) adj3 incontinen$).tw.	69
12	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	3
13	OAB.tw.	1
14	((urgency adj frequency) or (frequency adj urgency)).tw.	3
15	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	1
16	nocturia.tw.	0
17	or/8-16	72
18	exp BOTULINUM TOXINS/	11
19	botulinum$.tw.	28
20	(BTA or BTX or BoNT$ or BoTx).tw.	12
21	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).tw.	2
22	"onabotulinumtoxin a".tw.	0
23	bonta$.tw.	0
24	or/18-23	30
25	and/17,24	0
26	and/7,25	0

Database(s): Ovid MEDLINE(R) 1948 to August Week 1 2011
Search Strategy: UI_update_botox_economic_medline_110811

#	Searches	Results
1	costs.tw.	96195
2	cost effective$.tw.	56123
3	economic.tw.	88701

4	or/1-3	208923
5	(metabolic adj cost).tw.	606
6	((energy or oxygen) adj cost).tw.	2337
7	4 not (5 or 6)	208637
8	URINARY INCONTINENCE/	16296
9	URINARY BLADDER, OVERACTIVE/	1472
10	URGE INCONTINENCE/	343
11	((mix$ or urg$ or urin$) adj3 incontinen$).ti,ab.	16826
12	(bladder$ adj3 (overactiv$ or incontinen$)).ti,ab.	3100
13	OAB.ti,ab.	838
14	((urgency adj frequency) or (frequency adj urgency)).ti,ab.	736
15	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2346
16	nocturia.tw.	1576
17	or/8-16	29126
18	exp BOTULINUM TOXINS/	10309
19	botulinum$.ti,ab.	11131
20	(BTA or BTX or BoNT$ or BoTx).ti,ab.	3474
21	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).ti,ab.	1267
22	"onabotulinumtoxin a".ti,ab.	2
23	bonta$.ti,ab.	119
24	or/18-23	14245
25	and/17,24	434
26	and/7,25	18

Database(s): EBM Reviews - NHS Economic Evaluation Database 3rd Quarter 2011
Search Strategy: UI_update_botox_economic_nhseed_110811

#	Searches	Results
1	costs.tw.	9233
2	cost effective$.tw.	9132
3	economic.tw.	11163
4	or/1-3	11163
5	(metabolic adj cost).tw.	0
6	((energy or oxygen) adj cost).tw.	0
7	4 not (5 or 6)	11163
8	URINARY INCONTINENCE/	16

9	URINARY BLADDER, OVERACTIVE/	8
10	URGE INCONTINENCE/	2
11	((mix$ or urg$ or urin$) adj3 incontinen$).tw.	63
12	(bladder$ adj3 (overactiv$ or incontinen$)).tw.	16
13	OAB.tw.	6
14	((urgency adj frequency) or (frequency adj urgency)).tw.	4
15	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	8
16	nocturia.tw.	6
17	or/8-16	75
18	exp BOTULINUM TOXINS/	19
19	botulinum$.tw.	26
20	(BTA or BTX or BoNT$ or BoTx).tw.	8
21	(botox or dysport or azzalure or oculinum or prosigne or purtox or vistabel or xeomin or bocouture).tw.	8
22	"onabotulinumtoxin a".tw.	0
23	bonta$.tw.	0
24	or/18-23	28
25	and/17,24	4
26	and/7,25	4

Mid-urethral tapes

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 3rd Quarter 2011
Search Strategy: UI_update_tapes_cctr_230811

#	Searches	Results
1	letter.pt.	4956
2	case report.tw.	182
3	comment.pt.	1702
4	editorial.pt.	292
5	historical article.pt.	68
6	or/1-5	5848
7	URINARY INCONTINENCE, STRESS/	433
8	((stress or effort) adj incontinen$).ti,ab.	491
9	SUI.ti,ab.	168
10	(urine adj2 (loss or leak$)).ti,ab.	134
11	or/7-10	850
12	(tension adj3 vagina$).ti,ab.	141

13	TVT.ti,ab.	183
14	retropubic$.ti,ab.	222
15	SUBURETHRAL SLINGS/	81
16	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	135
17	transobturator$.ti,ab.	85
18	"outside in".ti,ab.	1586
19	"inside out".ti,ab.	497
20	(single adj incision).ti,ab.	33
21	minisling$.ti,ab.	0
22	MUS.ti,ab.	39
23	"bottom up".ti,ab.	221
24	"top down".ti,ab.	86
25	SPARC.ti,ab.	17
26	SURGICAL MESH/	344
27	"PROSTHESES AND IMPLANTS"/	398
28	(mini adj sling$).ti,ab.	3
29	(miniarc or monarc).ti,ab.	18
30	or/12-29	3508
31	and/11,30	228
32	31 not 6	228
33	limit 32 to english language [Limit not valid; records were retained]	228
34	limit 33 to (animals and humans) [Limit not valid; records were retained]	228
35	limit 33 to animals [Limit not valid; records were retained]	228
36	35 not 34	0
37	33 not 36	228
38	limit 37 to yr="2006 -Current"	132

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials November 2012
Search Strategy: UI_update_tapes_cctr_rerun2_271112

#	Searches	Results
1	((stress or effort) adj incontinen$).ti,ab.	508
2	SUI.ti,ab.	181
3	(urine adj2 (loss or leak$)).ti,ab.	145
4	or/1-3	761
5	(tension adj3 vagina$).ti,ab.	159
6	TVT.ti,ab.	202

7	retropubic$.ti,ab.	242
8	((suburethral or midurethral) adj2 sling$).ti,ab.	37
9	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	147
10	transobturator$.ti,ab.	100
11	"outside in".ti,ab.	1690
12	"inside out".ti,ab.	530
13	(single adj incision).ti,ab.	41
14	minisling$.ti,ab.	0
15	MUS.ti,ab.	43
16	"bottom up".ti,ab.	238
17	"top down".ti,ab.	98
18	SPARC.ti,ab.	19
19	(mini adj sling$).ti,ab.	3
20	(miniarc or monarc).ti,ab.	19
21	or/5-20	3017
22	and/4,21	190
23	limit 22 to yr="2012 -Current"	2

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to August 2011, EBM Reviews - Database of Abstracts of Reviews of Effects 3rd Quarter 2011
Search Strategy: UI_update_tapes_cdsrdare_230811

#	Searches	Results
1	URINARY INCONTINENCE, STRESS.kw.	34
2	((stress or effort) adj incontinen$).tw,tx.	52
3	SUI.tw,tx.	26
4	(urine adj2 (loss or leak$)).tw,tx.	63
5	or/1-4	106
6	(tension adj3 vagina$).tw,tx.	15
7	TVT.tw,tx.	11
8	retropubic$.tw,tx.	31
9	SUBURETHRAL SLINGS.kw.	14
10	((sling$ or tape$) adj3 (procedure$ or operat$)).tw,tx.	31
11	transobturator$.tw,tx.	8
12	"outside in".tw,tx.	1252
13	"inside out".tw,tx.	366
14	(single adj incision).tw,tx.	5

15	minisling$.tw,tx.	0
16	MUS.tw,tx.	8
17	"bottom up".tw,tx.	95
18	"top down".tw,tx.	10
19	SPARC.tw,tx.	3
20	SURGICAL MESH.kw.	35
21	"PROSTHESES AND IMPLANTS".kw.	24
22	(mini adj sling$).tw,tx.	1
23	(miniarc or monarc).tw,tx.	2
24	or/6-23	1695
25	and/5,24	45

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to October 2012, EBM Reviews - Database of Abstracts of Reviews of Effects 4th Quarter 2012
Search Strategy: UI_update_tapes_cdsrdare_rerun2_271112

#	Searches	Results
1	URINARY INCONTINENCE, STRESS.kw.	40
2	((stress or effort) adj incontinen$).tw,tx.	57
3	SUI.tw,tx.	29
4	(urine adj2 (loss or leak$)).tw,tx.	69
5	or/1-4	118
6	(tension adj3 vagina$).tw,tx.	19
7	TVT.tw,tx.	12
8	retropubic$.tw,tx.	35
9	SUBURETHRAL SLINGS.kw.	18
10	((sling$ or tape$) adj3 (procedure$ or operat$)).tw,tx.	35
11	transobturator$.tw,tx.	13
12	"outside in".tw,tx.	1421
13	"inside out".tw,tx.	421
14	(single adj incision).tw,tx.	13
15	minisling$.tw,tx.	0
16	MUS.tw,tx.	9
17	"bottom up".tw,tx.	108
18	"top down".tw,tx.	10
19	SPARC.tw,tx.	4
20	SURGICAL MESH.kw.	46

21	"PROSTHESES AND IMPLANTS".kw.	27
22	(mini adj sling$).tw,tx.	2
23	(miniarc or monarc).tw,tx.	3
24	or/6-23	1925
25	and/5,24	53
26	limit 25 to last year	31

Database(s): Embase 1980 to 2011 Week 33
Search Strategy: UI_update_tapes_embase_240811

#	Searches	Results
1	CASE REPORT/ or CASE STUDY/	1736022
2	(book or editorial or letter or note).pt.	1580662
3	or/1-2	3146003
4	STRESS INCONTINENCE/	12071
5	((stress or effort) adj incontinen$).ti,ab.	5837
6	SUI.ti,ab.	2767
7	(urine adj2 (loss or leak$)).ti,ab.	2076
8	or/4-7	15540
9	(tension adj3 vagina$).ti,ab.	1322
10	TVT.ti,ab.	1469
11	retropubic$.ti,ab.	4235
12	exp SUBURETHRAL SLING/	2501
13	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	2049
14	transobturator$.ti,ab.	936
15	"outside in".ti,ab.	1266
16	"inside out".ti,ab.	5313
17	(single adj incision).ti,ab.	1265
18	minisling$.ti,ab.	12
19	(mini adj sling$).ti,ab.	49
20	(miniarc or monarc).ti,ab.	123
21	MUS.ti,ab.	10427
22	"bottom up".ti,ab.	3709
23	"top down".ti,ab.	5114
24	SPARC.ti,ab.	1343
25	surgical equipment/	15603
26	or/9-25	49092

27	and/8,26	3546
28	27 not 3	2938
29	limit 28 to english language	2398
30	limit 29 to yr="2006 -Current"	1523

Database(s): Embase 1980 to 2012 Week 47
Search Strategy: UI_update_tapes_embase_rerun2_271112

#	Searches	Results
1	CASE REPORT/ or CASE STUDY/	1879926
2	(book or editorial or letter or note).pt.	1833542
3	or/1-2	3521664
4	STRESS INCONTINENCE/	13789
5	((stress or effort) adj incontinen$).ti,ab.	6443
6	SUI.ti,ab.	3390
7	(urine adj2 (loss or leak$)).ti,ab.	2470
8	or/4-7	17757
9	(tension adj3 vagina$).ti,ab.	1559
10	TVT.ti,ab.	1757
11	retropubic$.ti,ab.	4829
12	exp SUBURETHRAL SLING/	3254
13	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	2343
14	transobturator$.ti,ab.	1253
15	"outside in".ti,ab.	1561
16	"inside out".ti,ab.	5859
17	(single adj incision).ti,ab.	1917
18	minisling$.ti,ab.	22
19	(mini adj sling$).ti,ab.	87
20	(miniarc or monarc).ti,ab.	163
21	MUS.ti,ab.	11758
22	"bottom up".ti,ab.	4820
23	"top down".ti,ab.	6501
24	SPARC.ti,ab.	1657
25	surgical equipment/	17759
26	or/9-25	57426
27	and/8,26	4303
28	27 not 3	3581

29	limit 28 to english language	2970
30	limit 29 to yr="2012 -Current"	302

Database(s): EBM Reviews - Health Technology Assessment 4th Quarter 2012
Search Strategy: UI_update_tapes_hta_rerun2_271112

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	25
2	((stress or effort) adj incontinen$).tw.	6
3	SUI.tw.	1
4	(urine adj2 (loss or leak$)).tw.	0
5	or/1-4	26
6	(tension adj3 vagina$).tw.	9
7	TVT.tw.	7
8	retropubic$.tw.	3
9	SUBURETHRAL SLINGS/	2
10	((sling$ or tape$) adj3 (procedure$ or operat$)).tw.	6
11	transobturator$.tw.	2
12	"outside in".tw.	0
13	"inside out".tw.	0
14	(single adj incision).tw.	4
15	minisling$.tw.	0
16	MUS.tw.	0
17	"bottom up".tw.	0
18	"top down".tw.	2
19	SPARC.tw.	0
20	SURGICAL MESH/	10
21	"PROSTHESES AND IMPLANTS"/	86
22	(mini adj sling$).tw.	0
23	(miniarc or monarc).tw.	0
24	or/6-23	110
25	and/5,24	16

Database(s): Ovid MEDLINE(R) 1948 to August Week 2 2011
Search Strategy: UI_update_tapes_medline_230811

#	Searches	Results
1	letter.pt.	723211

2	case report.tw.	161964
3	comment.pt.	449286
4	editorial.pt.	281786
5	historical article.pt.	278819
6	or/1-5	1504970
7	URINARY INCONTINENCE, STRESS/	7961
8	((stress or effort) adj incontinen$).ti,ab.	4643
9	SUI.ti,ab.	1333
10	(urine adj2 (loss or leak$)).ti,ab.	1499
11	or/7-10	10762
12	(tension adj3 vagina$).ti,ab.	925
13	TVT.ti,ab.	953
14	retropubic$.ti,ab.	3387
15	SUBURETHRAL SLINGS/	1103
16	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	1465
17	transobturator$.ti,ab.	482
18	"outside in".ti,ab.	1023
19	"inside out".ti,ab.	4932
20	(single adj incision).ti,ab.	698
21	minisling$.ti,ab.	3
22	MUS.ti,ab.	5963
23	"bottom up".ti,ab.	3043
24	"top down".ti,ab.	4364
25	SPARC.ti,ab.	1095
26	SURGICAL MESH/	8245
27	"PROSTHESES AND IMPLANTS"/	34327
28	(mini adj sling$).ti,ab.	12
29	(miniarc or monarc).ti,ab.	56
30	or/12-29	65937
31	and/11,30	2642
32	31 not 6	2442
33	limit 32 to english language	1962
34	limit 33 to (animals and humans)	19
35	limit 33 to animals	31
36	35 not 34	12
37	33 not 36	1950

38	limit 37 to yr="2006 -Current"	875

Database(s): Ovid MEDLINE(R) 1946 to November Week 3 2012
Search Strategy: UI_update_tapes_medline_rerun2_261112

#	Searches	Results
1	letter.pt.	766761
2	case report.tw.	171300
3	comment.pt.	493362
4	editorial.pt.	310895
5	historical article.pt.	290561
6	or/1-5	1608659
7	URINARY INCONTINENCE, STRESS/	8400
8	((stress or effort) adj incontinen$).ti,ab.	4744
9	SUI.ti,ab.	1532
10	(urine adj2 (loss or leak$)).ti,ab.	1610
11	or/7-10	11363
12	(tension adj3 vagina$).ti,ab.	1015
13	TVT.ti,ab.	1039
14	retropubic$.ti,ab.	3582
15	SUBURETHRAL SLINGS/	1413
16	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	1578
17	transobturator$.ti,ab.	604
18	"outside in".ti,ab.	1169
19	"inside out".ti,ab.	5138
20	(single adj incision).ti,ab.	1042
21	minisling$.ti,ab.	6
22	MUS.ti,ab.	6863
23	"bottom up".ti,ab.	3708
24	"top down".ti,ab.	5210
25	SPARC.ti,ab.	1209
26	SURGICAL MESH/	8858
27	"PROSTHESES AND IMPLANTS"/	34903
28	(mini adj sling$).ti,ab.	29
29	(miniarc or monarc).ti,ab.	67
30	or/12-29	70350
31	and/11,30	2923

32	31 not 6	2704
33	limit 32 to english language	2201
34	limit 33 to (animals and humans)	21
35	limit 33 to animals	34
36	35 not 34	13
37	33 not 36	2188
38	limit 37 to yr="2012 -Current"	96

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations August 22, 2011
Search Strategy: UI_update_tapes_MiP_230811

#	Searches	Results
1	((stress or effort) adj incontinen$).ti,ab.	103
2	SUI.ti,ab.	112
3	(urine adj2 (loss or leak$)).ti,ab.	70
4	or/1-3	260
5	(tension adj3 vagina$).ti,ab.	61
6	TVT.ti,ab.	51
7	retropubic$.ti,ab.	123
8	((suburethral or midurethral) adj2 sling$).ti,ab.	40
9	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	104
10	transobturator$.ti,ab.	58
11	"outside in".ti,ab.	54
12	"inside out".ti,ab.	121
13	(single adj incision).ti,ab.	123
14	minisling$.ti,ab.	1
15	MUS.ti,ab.	525
16	"bottom up".ti,ab.	614
17	"top down".ti,ab.	517
18	SPARC.ti,ab.	52
19	(mini adj sling$).ti,ab.	7
20	(miniarc or monarc).ti,ab.	4
21	or/5-20	2040
22	and/4,21	72

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations November 21, 2012
Search Strategy: UI_update_tapes_mip_rerun2_261112

#	Searches	Results
1	((stress or effort) adj incontinen$).ti,ab.	149
2	SUI.ti,ab.	157
3	(urine adj2 (loss or leak$)).ti,ab.	96
4	or/1-3	358
5	(tension adj3 vagina$).ti,ab.	70
6	TVT.ti,ab.	66
7	retropubic$.ti,ab.	145
8	((suburethral or midurethral) adj2 sling$).ti,ab.	70
9	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	109
10	transobturator$.ti,ab.	79
11	"outside in".ti,ab.	70
12	"inside out".ti,ab.	141
13	(single adj incision).ti,ab.	166
14	minisling$.ti,ab.	1
15	MUS.ti,ab.	905
16	"bottom up".ti,ab.	810
17	"top down".ti,ab.	722
18	SPARC.ti,ab.	72
19	(mini adj sling$).ti,ab.	6
20	(miniarc or monarc).ti,ab.	10
21	or/5-20	2911
22	and/4,21	108

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 4th Quarter 2011
Search Strategy: UI_update_tapes_economic_cctr_241011

#	Searches	Results
1	ECONOMICS/	28
2	VALUE OF LIFE/	27
3	exp "COSTS AND COST ANALYSIS"/	5698
4	exp ECONOMICS, HOSPITAL/	444
5	exp ECONOMICS, MEDICAL/	53
6	ECONOMICS, NURSING/	7
7	ECONOMICS, PHARMACEUTICAL/	51
8	exp "FEES AND CHARGES"/	196

9	exp BUDGETS/	15
10	budget*.ti,ab.	159
11	cost*.ti.	4580
12	(economic* or pharmaco?economic*).ti.	1333
13	(price* or pricing*).ti,ab.	558
14	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.	6040
15	(financ* or fee or fees).ti,ab.	1263
16	(value adj2 (money or monetary)).ti,ab.	60
17	or/1-16	12357
18	URINARY INCONTINENCE, STRESS/	443
19	((stress or effort) adj incontinen$).ti,ab.	495
20	SUI.ti,ab.	174
21	(urine adj2 (loss or leak$)).ti,ab.	139
22	or/18-21	866
23	(tension adj3 vagina$).ti,ab.	149
24	TVT.ti,ab.	193
25	retropubic$.ti,ab.	232
26	SUBURETHRAL SLINGS/	91
27	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	139
28	transobturator$.ti,ab.	90
29	"outside in".ti,ab.	1628
30	"inside out".ti,ab.	511
31	(single adj incision).ti,ab.	36
32	minisling$.ti,ab.	0
33	MUS.ti,ab.	41
34	"bottom up".ti,ab.	230
35	"top down".ti,ab.	89
36	SPARC.ti,ab.	19
37	SURGICAL MESH/	350
38	"PROSTHESES AND IMPLANTS"/	404
39	(mini adj sling$).ti,ab.	3
40	(miniarc or monarc).ti,ab.	19
41	or/23-40	3609
42	and/22,41	239
43	and/17,42	14
44	limit 43 to yr="2006 -Current"	9

Database(s): Embase 1980 to 2011 Week 42
Search Strategy:UI_update_tapes_economic_embase_241011

#	Searches	Results
1	HEALTH ECONOMICS/	30615
2	exp ECONOMIC EVALUATION/	172723
3	exp HEALTH CARE COST/	165958
4	exp FEE/	30163
5	BUDGET/	16055
6	FUNDING/	10993
7	RESOURCE ALLOCATION/	13186
8	budget*.ti,ab.	18936
9	cost*.ti,ab.	343773
10	(economic* or pharmaco?economic*).ti,ab.	146580
11	(price* or pricing*).ti,ab.	24976
12	(financ* or fee or fees or expenditure* or saving*).ti,ab.	142609
13	(value adj2 (money or monetary)).ti,ab.	1286
14	resourc* allocat*.ti,ab.	4469
15	(fund or funds or funding* or funded).ti,ab.	49730
16	(ration or rations or rationing* or rationed).ti,ab.	10035
17	or/1-16	786820
18	STRESS INCONTINENCE/	12254
19	((stress or effort) adj incontinen$).ti,ab.	5888
20	SUI.ti,ab.	2834
21	(urine adj2 (loss or leak$)).ti,ab.	2126
22	or/18-21	15783
23	(tension adj3 vagina$).ti,ab.	1349
24	TVT.ti,ab.	1499
25	retropubic$.ti,ab.	4292
26	exp SUBURETHRAL SLING/	2587
27	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	2085
28	transobturator$.ti,ab.	980
29	"outside in".ti,ab.	1301
30	"inside out".ti,ab.	5378
31	(single adj incision).ti,ab.	1403
32	minisling$.ti,ab.	15
33	(mini adj sling$).ti,ab.	53
34	(miniarc or monarc).ti,ab.	130

35	MUS.ti,ab.	10645
36	"bottom up".ti,ab.	3938
37	"top down".ti,ab.	5400
38	SPARC.ti,ab.	1383
39	surgical equipment/	15930
40	or/23-39	50417
41	and/22,40	3621
42	and/17,41	187
43	limit 42 to yr="2006 -Current"	127
44	limit 43 to english language	115

Database(s): EBM Reviews - Health Technology Assessment 4th Quarter 2011
Search Strategy:UI_update_tapes_economic_hta_241011

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	28
2	((stress or effort) adj incontinen$).tw.	8
3	SUI.tw.	4
4	(urine adj2 (loss or leak$)).tw.	2
5	or/1-4	30
6	(tension adj3 vagina$).tw.	10
7	TVT.tw.	9
8	retropubic$.tw.	7
9	SUBURETHRAL SLINGS/	3
10	((sling$ or tape$) adj3 (procedure$ or operat$)).tw.	7
11	transobturator$.tw.	2
12	"outside in".tw.	0
13	"inside out".tw.	0
14	(single adj incision).tw.	4
15	minisling$.tw.	0
16	MUS.tw.	0
17	"bottom up".tw.	1
18	"top down".tw.	2
19	SPARC.tw.	0
20	SURGICAL MESH/	13
21	"PROSTHESES AND IMPLANTS"/	83
22	(mini adj sling$).tw.	0

23	(miniarc or monarc).tw.	0
24	or/6-23	117
25	and/5,24	17

Database(s): Ovid MEDLINE(R) 1948 to October Week 2 2011
Search Strategy: UI_update_tapes_economic_medline_241011

#	Searches	Results
1	ECONOMICS/	26457
2	VALUE OF LIFE/	5199
3	exp "COSTS AND COST ANALYSIS"/	160809
4	exp ECONOMICS, HOSPITAL/	17670
5	exp ECONOMICS, MEDICAL/	13581
6	ECONOMICS, NURSING/	3854
7	ECONOMICS, PHARMACEUTICAL/	2293
8	exp "FEES AND CHARGES"/	25563
9	exp BUDGETS/	11129
10	budget*.ti,ab.	14888
11	cost*.ti.	66603
12	(economic* or pharmaco?economic*).ti.	26690
13	(price* or pricing*).ti,ab.	19402
14	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.	69431
15	(financ* or fee or fees).ti,ab.	60280
16	(value adj2 (money or monetary)).ti,ab.	986
17	or/1-16	352904
18	URINARY INCONTINENCE, STRESS/	8720
19	((stress or effort) adj incontinen$).ti,ab.	4974
20	SUI.ti,ab.	1506
21	(urine adj2 (loss or leak$)).ti,ab.	1561
22	or/18-21	11638
23	(tension adj3 vagina$).ti,ab.	1123
24	TVT.ti,ab.	1151
25	retropubic$.ti,ab.	3490
26	SUBURETHRAL SLINGS/	1408
27	((sling$ or tape$) adj3 (procedure$ or operat$)).ti,ab.	1650
28	transobturator$.ti,ab.	582
29	"outside in".ti,ab.	1055

30	"inside out".ti,ab.	5007
31	(single adj incision).ti,ab.	754
32	minisling$.ti,ab.	3
33	MUS.ti,ab.	6105
34	"bottom up".ti,ab.	3178
35	"top down".ti,ab.	4552
36	SPARC.ti,ab.	1126
37	SURGICAL MESH/	8534
38	"PROSTHESES AND IMPLANTS"/	34713
39	(mini adj sling$).ti,ab.	14
40	(miniarc or monarc).ti,ab.	76
41	or/23-40	67524
42	and/22,41	3066
43	and/17,42	69
44	limit 43 to yr="2006 -Current"	38
45	limit 44 to english language	33

Database(s): EBM Reviews - NHS Economic Evaluation Database 4th Quarter 2011
Search Strategy: UI_update_tapes_economic_nhseed_241011

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	24
2	((stress or effort) adj incontinen$).tw.	18
3	SUI.tw.	7
4	(urine adj2 (loss or leak$)).tw.	3
5	or/1-4	32
6	(tension adj3 vagina$).tw.	9
7	TVT.tw.	4
8	retropubic$.tw.	22
9	SUBURETHRAL SLINGS/	4
10	((sling$ or tape$) adj3 (procedure$ or operat$)).tw.	5
11	transobturator$.tw.	0
12	"outside in".tw.	0
13	"inside out".tw.	0
14	(single adj incision).tw.	1
15	minisling$.tw.	0
16	MUS.tw.	0

17	"bottom up".tw.	30
18	"top down".tw.	21
19	SPARC.tw.	0
20	SURGICAL MESH/	35
21	"PROSTHESES AND IMPLANTS"/	18
22	(mini adj sling$).tw.	0
23	(miniarc or monarc).tw.	0
24	or/6-23	119
25	and/5,24	16

Tape failure

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 3rd Quarter 2011
Search Strategy: UI_update_tape_failure_cctr_v3_080911

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	433
2	((stress or effort) adj incontinen$).ti,ab.	491
3	SUI.ti,ab.	168
4	(urine adj2 (loss or leak$)).ti,ab.	134
5	or/1-4	850
6	(failure$ or failed).ti,ab.	31437
7	TREATMENT FAILURE/	2151
8	URINARY BLADDER, OVERACTIVE/	152
9	URGE INCONTINENCE/	44
10	OAB.ti,ab.	181
11	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	348
12	nocturia.ti,ab.	218
13	(misdiagnos$ or unrecogni$).ti,ab.	314
14	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	21
15	(void$ or pain$ or erosion or eroded or complication$).ti.	18888
16	(new adj symptom$).ti.	2
17	"de novo".ti.	505
18	or/7-17	22524
19	and/5,18	118
20	RETREATMENT/	401
21	REOPERATION/	1099

22	(repeat adj2 (procedure$ or surgery)).ti,ab.	201
23	(tension adj3 vagina$).ti,ab.	141
24	TVT.ti,ab.	183
25	retropubic$.ti,ab.	222
26	SUBURETHRAL SLINGS/	81
27	(sling$ adj3 (procedure$ or operat$)).ti,ab.	60
28	transobturator$.ti,ab.	85
29	minisling$.ti,ab.	0
30	MUS.ti,ab.	39
31	SURGICAL MESH/	344
32	"PROSTHESES AND IMPLANTS"/	398
33	(mini adj sling$).ti,ab.	3
34	(miniarc or monarc).ti,ab.	18
35	(pubovaginal adj sling$).ti,ab.	34
36	colposuspension.ti,ab.	153
37	(bulking adj2 agent$).ti,ab.	42
38	(adjustable adj2 tape).ti,ab.	1
39	plication.ti,ab.	48
40	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	11079
41	BMI.ti,ab.	3981
42	(obese or obesity).ti,ab.	6612
43	((under or over) adj weight).ti,ab.	18
44	(lean$ or thin$).ti,ab.	3976
45	SMOKING/	4192
46	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	11093
47	TOBACCO SMOKE POLLUTION/	140
48	exp "TOBACCO USE CESSATION"/	2064
49	FLUID THERAPY/	943
50	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	163
51	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	1011
52	or/20-51	34236
53	MUSCLE CONTRACTION/	1857
54	exp EXERCISE THERAPY/	4208
55	PELVIC FLOOR/	221
56	and/54-55	121
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or	678

	rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	
58	(pfmt or pfme).ti,ab.	50
59	or/53,56-58	2495
60	or/52-59	40063
61	and/19,60	69

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials November 2012
Search Strategy: UI_update_tape_failure_rerun2_cctr_291112

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	457
2	((stress or effort) adj incontinen$).ti,ab.	508
3	SUI.ti,ab.	181
4	(urine adj2 (loss or leak$)).ti,ab.	145
5	or/1-4	893
6	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).ti,ab.	575
7	TREATMENT FAILURE/	2222
8	URINARY BLADDER, OVERACTIVE/	187
9	URGE INCONTINENCE/	51
10	OAB.ti,ab.	204
11	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	363
12	nocturia.ti,ab.	235
13	(misdiagnos$ or unrecogni$).ti,ab.	324
14	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	23
15	(void$ or pain$ or erosion or eroded or complication$).ti.	19815
16	(new adj symptom$).ti.	2
17	"de novo".ti.	536
18	or/6-17	24123
19	and/5,18	143
20	RETREATMENT/	430
21	REOPERATION/	1147
22	(repeat adj2 (procedure$ or surgery)).ti,ab.	212
23	(tension adj3 vagina$).ti,ab.	159
24	TVT.ti,ab.	202
25	retropubic$.ti,ab.	242
26	SUBURETHRAL SLINGS/	105

27	(sling$ adj3 (procedure$ or operat$)).ti,ab.	64
28	transobturator$.ti,ab.	100
29	minisling$.ti,ab.	0
30	MUS.ti,ab.	43
31	SURGICAL MESH/	368
32	"PROSTHESES AND IMPLANTS"/	414
33	(mini adj sling$).ti,ab.	3
34	(miniarc or monarc).ti,ab.	19
35	(pubovaginal adj sling$).ti,ab.	34
36	colposuspension.ti,ab.	155
37	(bulking adj2 agent$).ti,ab.	43
38	(adjustable adj2 tape).ti,ab.	1
39	plication.ti,ab.	50
40	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	11798
41	BMI.ti,ab.	4525
42	(obese or obesity).ti,ab.	7237
43	((under or over) adj weight).ti,ab.	19
44	(lean$ or thin$).ti,ab.	4213
45	SMOKING/	4411
46	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	11804
47	TOBACCO SMOKE POLLUTION/	153
48	exp "TOBACCO USE CESSATION"/	2251
49	FLUID THERAPY/	979
50	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	180
51	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	1069
52	or/20-51	36509
53	MUSCLE CONTRACTION/	1918
54	exp EXERCISE THERAPY/	4658
55	PELVIC FLOOR/	231
56	and/54-55	126
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	708
58	(pfmt or pfme).ti,ab.	54
59	or/53,56-58	2587
60	or/52,59	38984

61	and/19,60	88
62	limit 61 to yr="2011 -Current"	8
63	limit 62 to yr="2012 -Current"	0

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to August 2011, EBM Reviews - Database of Abstracts of Reviews of Effects 3rd Quarter 2011
Search Strategy: UI_update_tape_failure_cdsrdare_v3_090911

#	Searches	Results
1	URINARY INCONTINENCE, STRESS.kw.	34
2	((stress or effort) adj incontinen$).tw,tx.	52
3	SUI.tw,tx.	26
4	(urine adj2 (loss or leak$)).tw,tx.	63
5	or/1-4	106
6	(failure$ or failed).tw,tx.	6003
7	TREATMENT FAILURE.kw.	104
8	URINARY BLADDER, OVERACTIVE.kw.	17
9	URGE INCONTINENCE.kw.	0
10	OAB.tw,tx.	13
11	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	61
12	nocturia.tw,tx.	56
13	(misdiagnos$ or unrecogni$).tw,tx.	124
14	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).tw,tx.	16
15	(void$ or pain$ or erosion or eroded or complication$).ti.	1075
16	(new adj symptom$).ti.	0
17	"de novo".ti.	0
18	or/7-17	1395
19	and/5,18	49
20	RETREATMENT.kw.	21
21	REOPERATION.kw.	96
22	(repeat adj2 (procedure$ or surgery)).tw,tx.	86
23	(tension adj3 vagina$).tw,tx.	15
24	TVT.tw,tx.	11
25	retropubic$.tw,tx.	31
26	SUBURETHRAL SLINGS.kw.	14
27	(sling$ adj3 (procedure$ or operat$)).tw,tx.	22
28	transobturator$.tw,tx.	8

29	minisling$.tw,tx.	0
30	MUS.tw,tx.	8
31	SURGICAL MESH.kw.	35
32	"PROSTHESES AND IMPLANTS".kw.	24
33	(mini adj sling$).tw,tx.	1
34	(miniarc or monarc).tw,tx.	2
35	(pubovaginal adj sling$).tw,tx.	8
36	colposuspension.tw,tx.	24
37	(bulking adj2 agent$).tw,tx.	33
38	(adjustable adj2 tape).tw,tx.	0
39	plication.tw,tx.	16
40	(BODY WEIGHT or BODY WEIGHT CHANGES or WEIGHT GAIN or WEIGHT LOSS or OVERWEIGHT or OBESITY or OBESITY, MORBID or THINESS).kw.	400
41	BMI.tw,tx.	399
42	(obese or obesity).tw,tx.	753
43	((under or over) adj weight).tw,tx.	2282
44	(lean$ or thin$).tw,tx.	1142
45	SMOKING.kw.	204
46	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).tw,tx.	1178
47	TOBACCO SMOKE POLLUTION.kw.	8
48	"TOBACCO USE CESSATION".kw.	8
49	FLUID THERAPY.kw.	68
50	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).tw,tx.	59
51	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).tw,tx.	201
52	or/20-51	4699
53	MUSCLE CONTRACTION.kw.	21
54	EXERCISE THERAPY.kw.	416
55	PELVIC FLOOR.kw.	25
56	and/54-55	13
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).tw,tx.	124
58	(pfmt or pfme).tw,tx.	23
59	or/53,56-58	143
60	or/52-59	5097
61	and/19,60	38

Database(s): EBM Reviews - Cochrane Database of Systematic Reviews 2005 to November 2012, EBM Reviews - Database of Abstracts of Reviews of Effects 4th Quarter 2012
Search Strategy: UI_update_tape_failure_rerun2_cdsrdare_29112

#	Searches	Results
1	URINARY INCONTINENCE, STRESS.kw.	40
2	((stress or effort) adj incontinen$).tw,tx.	59
3	SUI.tw,tx.	30
4	(urine adj2 (loss or leak$)).tw,tx.	70
5	or/1-4	120
6	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).ti,ab.	26
7	TREATMENT FAILURE.kw.	121
8	URINARY BLADDER, OVERACTIVE.kw.	21
9	URGE INCONTINENCE.kw.	0
10	OAB.tw,tx.	18
11	(detrusor$ adj3 (instabilit$ or overactiv$)).tw,tx.	67
12	nocturia.tw,tx.	60
13	(misdiagnos$ or unrecogni$).tw,tx.	142
14	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).tw,tx.	19
15	(void$ or pain$ or erosion or eroded or complication$).ti.	1270
16	(new adj symptom$).ti.	0
17	"de novo".ti.	0
18	or/6-17	1651
19	and/5,18	55
20	RETREATMENT.kw.	25
21	REOPERATION.kw.	121
22	(repeat adj2 (procedure$ or surgery)).tw,tx.	100
23	(tension adj3 vagina$).tw,tx.	20
24	TVT.tw,tx.	13
25	retropubic$.tw,tx.	36
26	SUBURETHRAL SLINGS.kw.	18
27	(sling$ adj3 (procedure$ or operat$)).tw,tx.	26
28	transobturator$.tw,tx.	14
29	minisling$.tw,tx.	0
30	MUS.tw,tx.	10
31	SURGICAL MESH.kw.	47
32	"PROSTHESES AND IMPLANTS".kw.	27

33	(mini adj sling$).tw,tx.	2
34	(miniarc or monarc).tw,tx.	3
35	(pubovaginal adj sling$).tw,tx.	8
36	colposuspension.tw,tx.	28
37	(bulking adj2 agent$).tw,tx.	35
38	(adjustable adj2 tape).tw,tx.	0
39	plication.tw,tx.	16
40	(BODY WEIGHT or BODY WEIGHT CHANGES or WEIGHT GAIN or WEIGHT LOSS or OVERWEIGHT or OBESITY or OBESITY, MORBID or THINESS).kw.	515
41	BMI.tw,tx.	533
42	(obese or obesity).tw,tx.	962
43	((under or over) adj weight).tw,tx.	2693
44	(lean$ or thin$).tw,tx.	1354
45	SMOKING.kw.	241
46	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).tw,tx.	1397
47	TOBACCO SMOKE POLLUTION.kw.	9
48	"TOBACCO USE CESSATION".kw.	9
49	FLUID THERAPY.kw.	77
50	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).tw,tx.	69
51	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).tw,tx.	229
52	or/20-51	5581
53	MUSCLE CONTRACTION.kw.	24
54	EXERCISE THERAPY.kw.	508
55	PELVIC FLOOR.kw.	30
56	and/54-55	16
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).tw,tx.	141
58	(pfmt or pfme).tw,tx.	27
59	or/53,56-58	160
60	or/52,59	5664
61	and/19,60	45
62	limit 61 to last 2 years	27
63	limit 62 to last year	17

Database(s): Embase 1980 to 2011 Week 36
Search Strategy: UI_update_tape_failure_embase_v3_120911

#	Searches	Results
1	CASE REPORT/ or CASE STUDY/	1741462
2	(book or editorial or letter or note).pt.	1588699
3	or/1-2	3158717
4	STRESS INCONTINENCE/	12099
5	((stress or effort) adj incontinen$).ti,ab.	5842
6	SUI.ti,ab.	2774
7	(urine adj2 (loss or leak$)).ti,ab.	2087
8	or/4-7	15581
9	(failure$ or failed).ti,ab.	667845
10	treatment failure/	52759
11	overactive bladder/	4959
12	urge incontinence/	3466
13	OAB.ti,ab.	1742
14	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3243
15	nocturia.ti,ab.	2225
16	(misdiagnos$ or unrecogni$).ti,ab.	38875
17	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	528
18	(void$ or pain$ or erosion or eroded or complication$).ti.	244943
19	(new adj symptom$).ti.	107
20	"de novo".ti.	8150
21	or/9-20	977861
22	and/8,21	4682
23	retreatment/	3739
24	reoperation/	40069
25	(repeat adj2 (procedure$ or surgery)).ti,ab.	2797
26	tension free vaginal tape/	1476
27	(tension adj3 vagina$).ti,ab.	1326
28	TVT.ti,ab.	1471
29	retropubic.ti,ab.	4220
30	exp suburethral sling/	2512
31	(sling$ adj3 (procedure$ or operat$)).ti,ab.	1297
32	transobturator$.ti,ab.	941
33	minisling$.ti,ab.	12
34	MUS.ti,ab.	10472

35	surgical equipment/	15688
36	"prostheses and orthoses"/	12731
37	(mini adj sling$).ti,ab.	49
38	(miniarc or monarc).ti,ab.	125
39	(pubovaginal adj sling$).ti,ab.	377
40	colposuspension/	996
41	colposuspension.ti,ab.	1033
42	bulking agent/ or diluent/	1535
43	(adjustable adj2 tape).ti,ab.	15
44	plication.ti,ab.	2438
45	body weight/ or weight change/ or weight gain/ or weight reduction/	236467
46	obesity/ or morbid obesity/	175549
47	BMI.ti,ab.	71922
48	(obese or obesity).ti,ab.	154145
49	((under or over) adj weight).ti,ab.	607
50	(lean$ or thin$).ti,ab.	194249
51	smoking/ or cigarette smoking/	155919
52	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	193641
53	smoking cessation/	28597
54	passive smoking/	5440
55	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	1860
56	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	9928
57	pelvic floor muscle training/	868
58	pelvic floor muscle exercise$.ti,ab.	241
59	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	3981
60	(pfmt or pfme).ti,ab.	162
61	or/23-60	923798
62	and/22,61	2290
63	62 not 3	2016
64	limit 63 to english language	1763

Database(s): Embase 1980 to 2012 Week 47
Search Strategy: UI_update_tape_failure_rerun2_embase_291112

#	Searches	Results
1	CASE REPORT/ or CASE STUDY/	1879926

2	(book or editorial or letter or note).pt.	1833542
3	or/1-2	3521664
4	STRESS INCONTINENCE/	13789
5	((stress or effort) adj incontinen$).ti,ab.	6443
6	SUI.ti,ab.	3390
7	(urine adj2 (loss or leak$)).ti,ab.	2470
8	or/4-7	17757
9	(failure$ or failed).ti,ab.	768921
10	TREATMENT FAILURE/	59997
11	OVERACTIVE BLADDER/	6407
12	URGE INCONTINENCE/	3937
13	OAB.ti,ab.	2277
14	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3813
15	nocturia.ti,ab.	2705
16	(misdiagnos$ or unrecogni$).ti,ab.	45602
17	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	585
18	(void$ or pain$ or erosion or eroded or complication$).ti.	275442
19	(new adj symptom$).ti.	113
20	"de novo".ti.	9679
21	or/9-20	1119701
22	and/8,21	5427
23	RETREATMENT/	4803
24	REOPERATION/	47276
25	(repeat adj2 (procedure$ or surgery)).ti,ab.	3459
26	(tension adj3 vagina$).ti,ab.	1559
27	TVT.ti,ab.	1757
28	retropubic.ti,ab.	4797
29	exp SUBURETHRAL SLING/	3254
30	(sling$ adj3 (procedure$ or operat$)).ti,ab.	1473
31	transobturator$.ti,ab.	1253
32	minisling$.ti,ab.	22
33	MUS.ti,ab.	11758
34	SURGICAL EQUIPMENT/	17759
35	"PROSTHESES and ORTHOSES"/	14351
36	(mini adj sling$).ti,ab.	87
37	(miniarc or monarc).ti,ab.	163

38	(pubovaginal adj sling$).ti,ab.	422
39	COLPOSUSPENSION/	1065
40	colposuspension.ti,ab.	1119
41	BULKING AGENT/ or DILUENT/	1868
42	(adjustable adj2 tape).ti,ab.	22
43	plication.ti,ab.	2760
44	BODY WEIGHT/ or WEIGHT CHANGE/ or WEIGHT GAIN/ or WEIGHT REDUCTION/	278367
45	OBESITY/ or MORBID OBESITY/	215326
46	BMI.ti,ab.	100787
47	(obese or obesity).ti,ab.	193921
48	((under or over) adj weight).ti,ab.	768
49	(lean$ or thin$).ti,ab.	221760
50	SMOKING/ or CIGARETTE SMOKING/	181922
51	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	226578
52	SMOKING CESSATION/	32745
53	PASSIVE SMOKING/	6514
54	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	2258
55	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	11376
56	PELVIC FLOOR MUSCLE TRAINING/	1106
57	pelvic floor muscle exercise$.ti,ab.	280
58	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	4708
59	(pfmt or pfme).ti,ab.	210
60	or/23-59	1088059
61	and/22,60	2722
62	61 not 3	2396
63	limit 62 to english language	2119
64	limit 63 to yr="2012 -Current"	208

Database(s): Ovid MEDLINE(R) 1948 to August Week 4 2011
Search Strategy:UI_update_tape_failure_medline_060911

#	Searches	Results
1	letter.pt.	724556
2	case report.tw.	162251
3	comment.pt.	450510
4	editorial.pt.	282591

5	historical article.pt.	279071
6	or/1-5	1507883
7	URINARY INCONTINENCE, STRESS/	7970
8	((stress or effort) adj incontinen$).ti,ab.	4647
9	SUI.ti,ab.	1337
10	(urine adj2 (loss or leak$)).ti,ab.	1502
11	or/7-10	10776
12	((tape$ or sling$ or treatment$ or therap$ or procedure$) adj2 failure$).ti,ab.	19868
13	TREATMENT FAILURE/	22244
14	URINARY BLADDER, OVERACTIVE/	1497
15	URGE INCONTINENCE/	347
16	OAB.ti,ab.	851
17	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2359
18	nocturia.ti,ab.	1584
19	(misdiagnos$ or unrecogni$).ti,ab.	32636
20	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	455
21	(void$ or pain$ or erosion or eroded or complication$).ti.	200679
22	(new adj symptom$).ti.	95
23	"de novo".ti.	7090
24	or/13-23	266598
25	and/11,24	1574
26	Retreatment/	4480
27	(repeat adj2 (procedure$ or surgery)).ti,ab.	2189
28	(tension adj3 vagina$).ti,ab.	925
29	TVT.ti,ab.	954
30	retropubic$.ti,ab.	3397
31	SUBURETHRAL SLINGS/	1108
32	(sling$ adj3 (procedure$ or operat$)).ti,ab.	912
33	transobturator$.ti,ab.	485
34	minisling$.ti,ab.	3
35	MUS.ti,ab.	5974
36	SURGICAL MESH/	8264
37	"PROSTHESES AND IMPLANTS"/	34363
38	(mini adj sling$).ti,ab.	12
39	(miniarc or monarc).ti,ab.	57
40	(pubovaginal adj sling$).ti,ab.	300

41	colposuspension.ti,ab.	760
42	(bulking adj2 agent$).ti,ab.	525
43	(adjustable adj2 tape).ti,ab.	6
44	plication.ti,ab.	2181
45	or/26-44	62445
46	and/25,45	645
47	46 not 6	608
48	limit 47 to english language	534
49	limit 48 to (animals and humans)	1
50	limit 48 to animals	1
51	50 not 49	0
52	48 not 51	534
53	limit 52 to "all adult (19 plus years)"	458

Database(s): Ovid MEDLINE(R) 1948 to August Week 4 2011
Search Strategy:UI_update_tape_failure_medline_060911

#	Searches	Results
1	letter.pt.	724556
2	case report.tw.	162251
3	comment.pt.	450510
4	editorial.pt.	282591
5	historical article.pt.	279071
6	or/1-5	1507883
7	URINARY INCONTINENCE, STRESS/	7970
8	((stress or effort) adj incontinen$).ti,ab.	4647
9	SUI.ti,ab.	1337
10	(urine adj2 (loss or leak$)).ti,ab.	1502
11	or/7-10	10776
12	(failure$ or failed).ti,ab.	573761
13	TREATMENT FAILURE/	22244
14	URINARY BLADDER, OVERACTIVE/	1497
15	URGE INCONTINENCE/	347
16	OAB.ti,ab.	851
17	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2359
18	nocturia.ti,ab.	1584
19	(misdiagnos$ or unrecogni$).ti,ab.	32636

20	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	455
21	(void$ or pain$ or erosion or eroded or complication$).ti.	200679
22	(new adj symptom$).ti.	95
23	"de novo".ti.	7090
24	or/13-23	266598
25	and/11,24	1574
26	RETREATMENT/	4480
27	REOPERATION/	58729
28	(repeat adj2 (procedure$ or surgery)).ti,ab.	2189
29	(tension adj3 vagina$).ti,ab.	925
30	TVT.ti,ab.	954
31	retropubic$.ti,ab.	3397
32	SUBURETHRAL SLINGS/	1108
33	(sling$ adj3 (procedure$ or operat$)).ti,ab.	912
34	transobturator$.ti,ab.	485
35	minisling$.ti,ab.	3
36	MUS.ti,ab.	5974
37	SURGICAL MESH/	8264
38	"PROSTHESES AND IMPLANTS"/	34363
39	(mini adj sling$).ti,ab.	12
40	(miniarc or monarc).ti,ab.	57
41	(pubovaginal adj sling$).ti,ab.	300
42	colposuspension.ti,ab.	760
43	(bulking adj2 agent$).ti,ab.	525
44	(adjustable adj2 tape).ti,ab.	6
45	plication.ti,ab.	2181
46	or/26-45	118489
47	and/25,46	669
48	47 not 6	632
49	limit 48 to english language	552
50	limit 49 to (animals and humans)	1
51	limit 49 to animals	2
52	51 not 50	1
53	49 not 52	551
54	limit 53 to "all adult (19 plus years)"	470

Database(s): Ovid MEDLINE(R) 1948 to August Week 5 2011
Search Strategy:UI_update_tape_failure_medline_v3_080911

#	Searches	Results
1	letter.pt.	725669
2	case report.tw.	163123
3	comment.pt.	451657
4	editorial.pt.	283470
5	historical article.pt.	279830
6	or/1-5	1511873
7	URINARY INCONTINENCE, STRESS/	8675
8	((stress or effort) adj incontinen$).ti,ab.	4960
9	SUI.ti,ab.	1490
10	(urine adj2 (loss or leak$)).ti,ab.	1550
11	or/7-10	11571
12	(failure$ or failed).ti,ab.	576448
13	TREATMENT FAILURE/	22348
14	URINARY BLADDER, OVERACTIVE/	1585
15	URGE INCONTINENCE/	393
16	OAB.ti,ab.	892
17	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2459
18	nocturia.ti,ab.	1632
19	(misdiagnos$ or unrecogni$).ti,ab.	32768
20	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	457
21	(void$ or pain$ or erosion or eroded or complication$).ti.	201456
22	(new adj symptom$).ti.	95
23	"de novo".ti.	7119
24	or/13-23	267852
25	and/11,24	1761
26	RETREATMENT/	4504
27	REOPERATION/	58903
28	(repeat adj2 (procedure$ or surgery)).ti,ab.	2200
29	(tension adj3 vagina$).ti,ab.	1117
30	TVT.ti,ab.	1145
31	retropubic$.ti,ab.	3467
32	SUBURETHRAL SLINGS/	1385
33	(sling$ adj3 (procedure$ or operat$)).ti,ab.	991
34	transobturator$.ti,ab.	574

35	minisling$.ti,ab.	3
36	MUS.ti,ab.	6006
37	SURGICAL MESH/	8475
38	"PROSTHESES AND IMPLANTS"/	34535
39	(mini adj sling$).ti,ab.	13
40	(miniarc or monarc).ti,ab.	75
41	(pubovaginal adj sling$).ti,ab.	329
42	colposuspension.ti,ab.	821
43	(bulking adj2 agent$).ti,ab.	547
44	(adjustable adj2 tape).ti,ab.	9
45	plication.ti,ab.	2204
46	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	272224
47	BMI.ti,ab.	48241
48	(obese or obesity).ti,ab.	125301
49	((under or over) adj weight).ti,ab.	396
50	(lean$ or thin$).ti,ab.	165287
51	SMOKING/	105194
52	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	164810
53	TOBACCO SMOKE POLLUTION/	8731
54	exp "TOBACCO USE CESSATION"/	17119
55	FLUID THERAPY/	12634
56	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	1415
57	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	8854
58	or/26-57	794105
59	MUSCLE CONTRACTION/	84288
60	exp EXERCISE THERAPY/	24081
61	PELVIC FLOOR/	3116
62	and/60-61	500
63	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	3094
64	(pfmt or pfme).ti,ab.	118
65	or/59,62-64	87302
66	or/58-65	899996
67	and/25,66	967
68	67 not 6	919
69	limit 68 to english language	814

70	limit 69 to (animals and humans)	2
71	limit 69 to animals	5
72	71 not 70	3
73	69 not 72	811
74	limit 73 to "all adult (19 plus years)"	690

Database(s): Ovid MEDLINE(R) 1948 to October Week 2 2011
Search Strategy:UI_update_tape_failure_medline_v4_241011

#	Searches	Results
1	letter.pt.	729858
2	case report.tw.	164392
3	comment.pt.	455954
4	editorial.pt.	286234
5	historical article.pt.	283619
6	or/1-5	1524964
7	URINARY INCONTINENCE, STRESS/	8720
8	((stress or effort) adj incontinen$).ti,ab.	4974
9	SUI.ti,ab.	1506
10	(urine adj2 (loss or leak$)).ti,ab.	1561
11	or/7-10	11638
12	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).ti,ab.	7973
13	TREATMENT FAILURE/	22595
14	URINARY BLADDER, OVERACTIVE/	1628
15	URGE INCONTINENCE/	397
16	OAB.ti,ab.	917
17	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2482
18	nocturia.ti,ab.	1653
19	(misdiagnos$ or unrecogni$).ti,ab.	33166
20	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	460
21	(void$ or pain$ or erosion or eroded or complication$).ti.	203727
22	(new adj symptom$).ti.	95
23	"de novo".ti.	7222
24	or/12-23	277751
25	and/11,24	1956
26	RETREATMENT/	4555
27	REOPERATION/	59266

28	(repeat adj2 (procedure$ or surgery)).ti,ab.	2212
29	(tension adj3 vagina$).ti,ab.	1123
30	TVT.ti,ab.	1151
31	retropubic$.ti,ab.	3490
32	SUBURETHRAL SLINGS/	1408
33	(sling$ adj3 (procedure$ or operat$)).ti,ab.	996
34	transobturator$.ti,ab.	582
35	minisling$.ti,ab.	3
36	MUS.ti,ab.	6105
37	SURGICAL MESH/	8534
38	"PROSTHESES AND IMPLANTS"/	34713
39	(mini adj sling$).ti,ab.	14
40	(miniarc or monarc).ti,ab.	76
41	(pubovaginal adj sling$).ti,ab.	329
42	colposuspension.ti,ab.	824
43	(bulking adj2 agent$).ti,ab.	554
44	(adjustable adj2 tape).ti,ab.	9
45	plication.ti,ab.	2215
46	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	275509
47	BMI.ti,ab.	49331
48	(obese or obesity).ti,ab.	127586
49	((under or over) adj weight).ti,ab.	400
50	(lean$ or thin$).ti,ab.	168439
51	SMOKING/	106626
52	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	167208
53	TOBACCO SMOKE POLLUTION/	8832
54	exp "TOBACCO USE CESSATION"/	17448
55	FLUID THERAPY/	12703
56	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	1432
57	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	8952
58	or/26-57	804814
59	MUSCLE CONTRACTION/	84672
60	exp EXERCISE THERAPY/	24447
61	PELVIC FLOOR/	3146
62	and/60-61	505
63	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or	3116

	rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	
64	(pfmt or pfme).ti,ab.	119
65	or/59,62-64	87709
66	or/58,65	889090
67	and/25,66	1067
68	67 not 6	1014
69	limit 68 to english language	899
70	limit 69 to (animals and humans)	4
71	limit 69 to animals	7
72	71 not 70	3
73	69 not 72	896
74	limit 73 to english language	896
75	limit 74 to (animals and humans)	4
76	limit 74 to animals	4
77	76 not 75	0
78	74 not 77	896
79	limit 78 to "all adult (19 plus years)"	761

Database(s): Ovid MEDLINE(R) 1946 to November Week 3 2012
Search Strategy: UI_update_tape_failure_rerun2_medline_291112

#	Searches	Results
1	letter.pt.	766872
2	case report.tw.	171340
3	comment.pt.	493546
4	editorial.pt.	310993
5	historical article.pt.	290835
6	or/1-5	1609272
7	URINARY INCONTINENCE, STRESS/	8418
8	((stress or effort) adj incontinen$).ti,ab.	4749
9	SUI.ti,ab.	1532
10	(urine adj2 (loss or leak$)).ti,ab.	1611
11	or/7-10	11382
12	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).ti,ab.	8455
13	TREATMENT FAILURE/	24541
14	URINARY BLADDER, OVERACTIVE/	1895

15	URGE INCONTINENCE/	451
16	OAB.ti,ab.	1050
17	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2507
18	nocturia.ti,ab.	1739
19	(misdiagnos$ or unrecogni$).ti,ab.	35527
20	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	477
21	(void$ or pain$ or erosion or eroded or complication$).ti.	214233
22	(new adj symptom$).ti.	98
23	"de novo".ti.	7843
24	or/12-23	293792
25	and/11,24	1903
26	RETREATMENT/	5021
27	REOPERATION/	63163
28	(repeat adj2 (procedure$ or surgery)).ti,ab.	2411
29	(tension adj3 vagina$).ti,ab.	1015
30	TVT.ti,ab.	1039
31	retropubic$.ti,ab.	3586
32	SUBURETHRAL SLINGS/	1417
33	(sling$ adj3 (procedure$ or operat$)).ti,ab.	969
34	transobturator$.ti,ab.	606
35	minisling$.ti,ab.	6
36	MUS.ti,ab.	6868
37	SURGICAL MESH/	8864
38	"PROSTHESES AND IMPLANTS"/	34916
39	(mini adj sling$).ti,ab.	29
40	(miniarc or monarc).ti,ab.	67
41	(pubovaginal adj sling$).ti,ab.	304
42	colposuspension.ti,ab.	779
43	(bulking adj2 agent$).ti,ab.	585
44	(adjustable adj2 tape).ti,ab.	6
45	plication.ti,ab.	2240
46	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	291263
47	BMI.ti,ab.	56798
48	(obese or obesity).ti,ab.	141323
49	((under or over) adj weight).ti,ab.	429

50	(lean$ or thin$).ti,ab.	198985
51	SMOKING/	111791
52	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	178078
53	TOBACCO SMOKE POLLUTION/	9519
54	exp "TOBACCO USE CESSATION"/	18750
55	FLUID THERAPY/	13437
56	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	1583
57	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	9388
58	or/26-57	872608
59	MUSCLE CONTRACTION/	86503
60	exp EXERCISE THERAPY/	26839
61	PELVIC FLOOR/	3094
62	and/60-61	521
63	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	3214
64	(pfmt or pfme).ti,ab.	131
65	or/59,62-64	89649
66	or/58,65	958635
67	and/25,66	1027
68	67 not 6	980
69	limit 68 to english language	861
70	limit 69 to (animals and humans)	3
71	limit 69 to animals	6
72	71 not 70	3
73	69 not 72	858
74	limit 73 to "all adult (19 plus years)"	718
75	limit 74 to yr="2012 -Current"	29

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations September 08, 2011
Search Strategy: UI_update_tape_failure_medline_in_process_v3_090911

#	Searches	Results
1	((stress or effort) adj incontinen$).ti,ab.	105
2	SUI.ti,ab.	116
3	(urine adj2 (loss or leak$)).ti,ab.	70
4	or/1-3	264
5	((failure$ or failed) adj2 (treatment$ or therap$ or surgery or procedure$)).ti,ab.	1273

6	((urge or urgency) adj5 incontinen$).ti,ab.	136
7	OAB.ti,ab.	121
8	((detrusor$ or bladder$) adj3 (instabilit$ or overactiv$)).ti,ab.	341
9	nocturia.ti,ab.	89
10	(misdiagnos$ or unrecogni$).ti,ab.	1568
11	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	28
12	(void$ or pain$ or erosion or eroded or complication$).ti.	9539
13	(new adj symptom$).ti.	6
14	"de novo".ti.	309
15	or/5-14	13075
16	(retreat$ or reoperat$).ti,ab.	905
17	(repeat adj2 (procedure$ or surgery)).ti,ab.	72
18	(tension adj3 vagina$).ti,ab.	63
19	TVT.ti,ab.	52
20	retropubic$.ti,ab.	111
21	((suburethral or mid?urethral) adj2 (sling$ or tape$)).ti,ab.	48
22	(sling$ adj3 (procedure$ or operat$)).ti,ab.	55
23	transobturator$.ti,ab.	58
24	minisling$.ti,ab.	1
25	MUS.ti,ab.	555
26	(mini adj sling$).ti,ab.	8
27	(miniarc or monarc).ti,ab.	4
28	(pubovaginal adj sling$).ti,ab.	9
29	colposuspension.ti,ab.	30
30	(bulking adj2 agent$).ti,ab.	30
31	(adjustable adj2 tape).ti,ab.	2
32	plication.ti,ab.	75
33	weight.ti,ab.	23153
34	BMI.ti,ab.	3456
35	(obese or obesity).ti,ab.	6772
36	((under or over) adj weight).ti,ab.	22
37	(lean$ or thin$).ti,ab.	25191
38	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	6531
39	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$ or therap$)).ti,ab.	214
40	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	392
41	(pelvic floor muscle adj (therap$ or exercise$)).ti,ab.	10

42	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	103
43	(pfmt or pfme).ti,ab.	5
44	or/16-43	60526
45	and/4,15,44	29

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations November 28, 2012
Search Strategy: UI_update_tape_failure_rerun2_mip_291112

#	Searches	Results
1	((stress or effort) adj incontinen$).ti,ab.	150
2	SUI.ti,ab.	157
3	(urine adj2 (loss or leak$)).ti,ab.	96
4	or/1-3	359
5	((failure$ or failed) adj2 (treatment$ or therap$ or surgery or procedure$)).ti,ab.	1773
6	((urge or urgency) adj5 incontinen$).ti,ab.	207
7	OAB.ti,ab.	159
8	((detrusor$ or bladder$) adj3 (instabilit$ or overactiv$)).ti,ab.	456
9	nocturia.ti,ab.	116
10	(misdiagnos$ or unrecogni$).ti,ab.	2169
11	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	31
12	(void$ or pain$ or erosion or eroded or complication$).ti.	12379
13	(new adj symptom$).ti.	6
14	"de novo".ti.	448
15	or/5-14	17270
16	(retreat$ or reoperat$).ti,ab.	1245
17	(repeat adj2 (procedure$ or surgery)).ti,ab.	128
18	(tension adj3 vagina$).ti,ab.	71
19	TVT.ti,ab.	66
20	retropubic$.ti,ab.	147
21	((suburethral or mid?urethral) adj2 (sling$ or tape$)).ti,ab.	80
22	(sling$ adj3 (procedure$ or operat$)).ti,ab.	62
23	transobturator$.ti,ab.	81
24	minisling$.ti,ab.	1
25	MUS.ti,ab.	913
26	(mini adj sling$).ti,ab.	6
27	(miniarc or monarc).ti,ab.	10

28	(pubovaginal adj sling$).ti,ab.	14
29	colposuspension.ti,ab.	37
30	(bulking adj2 agent$).ti,ab.	47
31	(adjustable adj2 tape).ti,ab.	4
32	plication.ti,ab.	105
33	weight.ti,ab.	29920
34	BMI.ti,ab.	4809
35	(obese or obesity).ti,ab.	9503
36	((under or over) adj weight).ti,ab.	26
37	(lean$ or thin$).ti,ab.	41536
38	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	8570
39	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$ or therap$)).ti,ab.	303
40	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	462
41	(pelvic floor muscle adj (therap$ or exercise$)).ti,ab.	16
42	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	175
43	(pfmt or pfme).ti,ab.	14
44	or/16-43	87089
45	and/4,15,44	41

Database(s): EBM Reviews - Cochrane Central Register of Controlled Trials 4th Quarter 2011
Search Strategy:UI_update_tape_failure_economic_cctr_v4_271011

#	Searches	Results
1	ECONOMICS/	28
2	VALUE OF LIFE/	27
3	exp "COSTS AND COST ANALYSIS"/	5698
4	exp ECONOMICS, HOSPITAL/	444
5	exp ECONOMICS, MEDICAL/	53
6	exp RESOURCE ALLOCATION/	50
7	ECONOMICS, NURSING/	7
8	ECONOMICS, PHARMACEUTICAL/	51
9	exp "FEES AND CHARGES"/	196
10	exp BUDGETS/	15
11	budget*.ti,ab.	159
12	cost*.ti,ab.	15931
13	(economic* or pharmaco?economic*).ti,ab.	3900

14	(price* or pricing*).ti,ab.	558
15	(financ* or fee or fees or expenditure* or saving*).ti,ab.	5156
16	(value adj2 (money or monetary)).ti,ab.	60
17	resourc* allocat*.ti,ab.	90
18	(fund or funds or funding* or funded).ti,ab.	1446
19	(ration or rations or rationing* or rationed).ti,ab.	116
20	ec.fs.	6388
21	or/1-20	23340
22	URINARY INCONTINENCE, STRESS/	443
23	((stress or effort) adj incontinen$).ti,ab.	495
24	SUI.ti,ab.	174
25	(urine adj2 (loss or leak$)).ti,ab.	139
26	or/22-25	866
27	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).ti,ab.	564
28	TREATMENT FAILURE/	2168
29	URINARY BLADDER, OVERACTIVE/	164
30	URGE INCONTINENCE/	47
31	OAB.ti,ab.	193
32	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	356
33	nocturia.ti,ab.	225
34	(misdiagnos$ or unrecogni$).ti,ab.	319
35	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	22
36	(void$ or pain$ or erosion or eroded or complication$).ti.	19308
37	(new adj symptom$).ti.	2
38	"de novo".ti.	521
39	or/27-38	23506
40	and/26,39	137
41	RETREATMENT/	413
42	REOPERATION/	1112
43	(repeat adj2 (procedure$ or surgery)).ti,ab.	206
44	(tension adj3 vagina$).ti,ab.	149
45	TVT.ti,ab.	193
46	retropubic$.ti,ab.	232
47	SUBURETHRAL SLINGS/	91
48	(sling$ adj3 (procedure$ or operat$)).ti,ab.	62
49	transobturator$.ti,ab.	90

50	minisling$.ti,ab.	0
51	MUS.ti,ab.	41
52	SURGICAL MESH/	350
53	"PROSTHESES AND IMPLANTS"/	404
54	(mini adj sling$).ti,ab.	3
55	(miniarc or monarc).ti,ab.	19
56	(pubovaginal adj sling$).ti,ab.	34
57	colposuspension.ti,ab.	154
58	(bulking adj2 agent$).ti,ab.	42
59	(adjustable adj2 tape).ti,ab.	1
60	plication.ti,ab.	49
61	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	11267
62	BMI.ti,ab.	4166
63	(obese or obesity).ti,ab.	6819
64	((under or over) adj weight).ti,ab.	18
65	(lean$ or thin$).ti,ab.	4056
66	SMOKING/	4247
67	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	11318
68	TOBACCO SMOKE POLLUTION/	144
69	exp "TOBACCO USE CESSATION"/	2099
70	FLUID THERAPY/	949
71	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	168
72	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	1031
73	or/41-72	34979
74	MUSCLE CONTRACTION/	1869
75	exp EXERCISE THERAPY/	4337
76	PELVIC FLOOR/	224
77	and/75-76	123
78	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	690
79	(pfmt or pfme).ti,ab.	52
80	or/74,77-79	2520
81	or/73,80	37391
82	and/40,81	84
83	and/21,82	6

Database(s): Embase 1980 to 2011 Week 43
Search Strategy:UI_update_tape_failure_economic_embase_v4_031111

#	Searches	Results
1	HEALTH ECONOMICS/	30630
2	exp ECONOMIC EVALUATION/	172968
3	exp HEALTH CARE COST/	166181
4	exp FEE/	30185
5	BUDGET/	16079
6	FUNDING/	11038
7	RESOURCE ALLOCATION/	13194
8	budget*.ti,ab.	18956
9	cost*.ti,ab.	344426
10	(economic* or pharmaco?economic*).ti,ab.	146831
11	(price* or pricing*).ti,ab.	25012
12	(financ* or fee or fees or expenditure* or saving*).ti,ab.	142817
13	(value adj2 (money or monetary)).ti,ab.	1290
14	resourc* allocat*.ti,ab.	4479
15	(fund or funds or funding* or funded).ti,ab.	49821
16	(ration or rations or rationing* or rationed).ti,ab.	10039
17	or/1-16	788082
18	STRESS INCONTINENCE/	12272
19	((stress or effort) adj incontinen$).ti,ab.	5892
20	SUI.ti,ab.	2837
21	(urine adj2 (loss or leak$)).ti,ab.	2129
22	or/18-21	15803
23	(failure$ or failed).ti,ab.	679518
24	TREATMENT FAILURE/	53486
25	OVERACTIVE BLADDER/	5111
26	URGE INCONTINENCE/	3516
27	OAB.ti,ab.	1784
28	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	3296
29	nocturia.ti,ab.	2272
30	(misdiagnos$ or unrecogni$).ti,ab.	39547
31	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	538
32	(void$ or pain$ or erosion or eroded or complication$).ti.	248327

33	(new adj symptom$).ti.	107
34	"de novo".ti.	8349
35	or/23-34	993983
36	and/22,35	4751
37	RETREATMENT/	3864
38	REOPERATION/	40975
39	(repeat adj2 (procedure$ or surgery)).ti,ab.	2852
40	tension free vaginal tape/	1501
41	(tension adj3 vagina$).ti,ab.	1350
42	TVT.ti,ab.	1500
43	retropubic.ti,ab.	4270
44	exp SUBURETHRAL SLING/	2594
45	(sling$ adj3 (procedure$ or operat$)).ti,ab.	1314
46	transobturator$.ti,ab.	982
47	minisling$.ti,ab.	15
48	MUS.ti,ab.	10664
49	SURGICAL EQUIPMENT/	15954
50	"prostheses and orthoses"/	12945
51	(mini adj sling$).ti,ab.	53
52	(miniarc or monarc).ti,ab.	130
53	(pubovaginal adj sling$).ti,ab.	380
54	COLPOSUSPENSION/	1005
55	colposuspension.ti,ab.	1038
56	BULKING AGENT/ or DILUENT/	1564
57	(adjustable adj2 tape).ti,ab.	15
58	plication.ti,ab.	2488
59	BODY WEIGHT/ or LEAN BODY WEIGHT/ or WEIGHT CHANGE/ or WEIGHT CONTROL/ or WEIGHT FLUCTUATION/ or WEIGHT GAIN/ or WEIGHT REDUCTION/	246825
60	OBESITY/ or MORBID OBESITY/	180266
61	BMI.ti,ab.	75006
62	(obese or obesity).ti,ab.	158724
63	((under or over) adj weight).ti,ab.	626
64	(lean$ or thin$).ti,ab.	197938
65	SMOKING/ or CIGARETTE SMOKING/	158960
66	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	197522
67	SMOKING CESSATION/	29218
68	FLUID THERAPY/	12842

69	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	1903
70	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	10075
71	PELVIC FLOOR MUSCLE TRAINING/	899
72	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	4048
73	(pfmt or pfme).ti,ab.	170
74	or/37-73	955139
75	and/36,74	2333
76	and/17,75	135
77	limit 76 to english language	116

Database(s): EBM Reviews - Health Technology Assessment 4th Quarter 2011
Search Strategy:UI_update_tape_failure_economic_hta_v4_031111

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	28
2	((stress or effort) adj incontinen$).tw.	8
3	SUI.tw.	4
4	(urine adj2 (loss or leak$)).tw.	2
5	or/1-4	30
6	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).tw.	12
7	TREATMENT FAILURE/	4
8	URINARY BLADDER, OVERACTIVE/	2
9	URGE INCONTINENCE/	0
10	OAB.tw.	1
11	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	2
12	nocturia.tw.	0
13	(misdiagnos$ or unrecogni$).tw.	16
14	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).tw.	0
15	(void$ or pain$ or erosion or eroded or complication$).ti.	260
16	(new adj symptom$).ti.	0
17	"de novo".ti.	0
18	or/6-17	295
19	and/5,18	1
20	RETREATMENT/	0
21	REOPERATION/	6
22	(repeat adj2 (procedure$ or surgery)).tw.	8

23	(tension adj3 vagina$).tw.	10
24	TVT.tw.	9
25	retropubic$.tw.	7
26	SUBURETHRAL SLINGS/	3
27	(sling$ adj3 (procedure$ or operat$)).tw.	4
28	transobturator$.tw.	2
29	minisling$.tw.	0
30	MUS.tw.	0
31	SURGICAL MESH/	13
32	"PROSTHESES AND IMPLANTS"/	83
33	(mini adj sling$).tw.	0
34	(miniarc or monarc).tw.	0
35	(pubovaginal adj sling$).tw.	1
36	colposuspension.tw.	4
37	(bulking adj2 agent$).tw.	3
38	(adjustable adj2 tape).tw.	0
39	plication.tw.	0
40	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	134
41	BMI.tw.	29
42	(obese or obesity).tw.	159
43	((under or over) adj weight).tw.	1
44	(lean$ or thin$).tw.	50
45	SMOKING/	24
46	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).tw.	125
47	TOBACCO SMOKE POLLUTION/	1
48	exp "TOBACCO USE CESSATION"/	58
49	FLUID THERAPY/	8
50	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).tw.	2
51	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).tw.	3
52	or/20-51	467
53	MUSCLE CONTRACTION/	2
54	exp EXERCISE THERAPY/	51
55	PELVIC FLOOR/	3
56	and/54-55	1
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).tw.	8

58	(pfmt or pfme).tw.	0
59	or/53,56-58	10
60	or/52,59	475
61	and/19,60	0

Database(s): Ovid MEDLINE(R) 1948 to October Week 3 2011
Search Strategy:UI_update_tape_failure_economic_medline_v4_271011

#	Searches	Results
1	ECONOMICS/	26458
2	VALUE OF LIFE/	5199
3	exp "COSTS AND COST ANALYSIS"/	160908
4	exp ECONOMICS, HOSPITAL/	17679
5	exp ECONOMICS, MEDICAL/	13581
6	exp RESOURCE ALLOCATION/	13977
7	ECONOMICS, NURSING/	3854
8	ECONOMICS, PHARMACEUTICAL/	2299
9	exp "FEES AND CHARGES"/	25569
10	exp BUDGETS/	11133
11	budget*.ti,ab.	14900
12	cost*.ti,ab.	273399
13	(economic* or pharmaco?economic*).ti,ab.	117791
14	(price* or pricing*).ti,ab.	19425
15	(financ* or fee or fees or expenditure* or saving*).ti,ab.	116997
16	(value adj2 (money or monetary)).ti,ab.	988
17	resourc* allocat*.ti,ab.	3780
18	(fund or funds or funding* or funded).ti,ab.	41197
19	(ration or rations or rationing* or rationed).ti,ab.	9436
20	ec.fs.	293444
21	or/1-20	715623
22	URINARY INCONTINENCE, STRESS/	8722
23	((stress or effort) adj incontinen$).ti,ab.	4975
24	SUI.ti,ab.	1506
25	(urine adj2 (loss or leak$)).ti,ab.	1563
26	or/22-25	11642
27	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).ti,ab.	7976
28	TREATMENT FAILURE/	22619

29	URINARY BLADDER, OVERACTIVE/	1633
30	URGE INCONTINENCE/	398
31	OAB.ti,ab.	919
32	(detrusor$ adj3 (instabilit$ or overactiv$)).ti,ab.	2484
33	nocturia.ti,ab.	1654
34	(misdiagnos$ or unrecogni$).ti,ab.	33205
35	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).ti,ab.	460
36	(void$ or pain$ or erosion or eroded or complication$).ti.	203838
37	(new adj symptom$).ti.	95
38	"de novo".ti.	7237
39	or/27-38	277950
40	and/26,39	1958
41	RETREATMENT/	4559
42	REOPERATION/	59302
43	(repeat adj2 (procedure$ or surgery)).ti,ab.	2213
44	(tension adj3 vagina$).ti,ab.	1123
45	TVT.ti,ab.	1151
46	retropubic$.ti,ab.	3491
47	SUBURETHRAL SLINGS/	1409
48	(sling$ adj3 (procedure$ or operat$)).ti,ab.	997
49	transobturator$.ti,ab.	582
50	minisling$.ti,ab.	3
51	MUS.ti,ab.	6116
52	SURGICAL MESH/	8538
53	"PROSTHESES AND IMPLANTS"/	34724
54	(mini adj sling$).ti,ab.	14
55	(miniarc or monarc).ti,ab.	76
56	(pubovaginal adj sling$).ti,ab.	329
57	colposuspension.ti,ab.	824
58	(bulking adj2 agent$).ti,ab.	554
59	(adjustable adj2 tape).ti,ab.	9
60	plication.ti,ab.	2216
61	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	275728
62	BMI.ti,ab.	49418
63	(obese or obesity).ti,ab.	127766
64	((under or over) adj weight).ti,ab.	400

65	(lean$ or thin$).ti,ab.	168796
66	SMOKING/	106681
67	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).ti,ab.	167334
68	TOBACCO SMOKE POLLUTION/	8842
69	exp "TOBACCO USE CESSATION"/	17457
70	FLUID THERAPY/	12706
71	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).ti,ab.	1433
72	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).ti,ab.	8958
73	or/41-72	805652
74	MUSCLE CONTRACTION/	84697
75	exp EXERCISE THERAPY/	24465
76	PELVIC FLOOR/	3147
77	and/75-76	505
78	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).ti,ab.	3116
79	(pfmt or pfme).ti,ab.	119
80	or/74,77-79	87734
81	or/73,80	889951
82	and/40,81	1067
83	and/21,82	28
84	limit 83 to english language	23

Database(s): EBM Reviews - NHS Economic Evaluation Database 4th Quarter 2011
Search Strategy: UI_update_tape_failure_economic_nhseed_v4_031111

#	Searches	Results
1	URINARY INCONTINENCE, STRESS/	24
2	((stress or effort) adj incontinen$).tw.	18
3	SUI.tw.	7
4	(urine adj2 (loss or leak$)).tw.	3
5	or/1-4	32
6	((failure$ or failed) adj3 (sling$ or tape$ or surger$ or operation$ or procedure$)).tw.	47
7	TREATMENT FAILURE/	53
8	URINARY BLADDER, OVERACTIVE/	10
9	URGE INCONTINENCE/	2
10	OAB.tw.	6
11	(detrusor$ adj3 (instabilit$ or overactiv$)).tw.	9

12	nocturia.tw.	6
13	(misdiagnos$ or unrecogni$).tw.	41
14	((inadequate or misplac$ or tight$) adj2 (tape$ or technique$)).tw.	1
15	(void$ or pain$ or erosion or eroded or complication$).ti.	260
16	(new adj symptom$).ti.	3
17	"de novo".ti.	13
18	or/6-17	432
19	and/5,18	11
20	RETREATMENT/	13
21	REOPERATION/	106
22	(repeat adj2 (procedure$ or surgery)).tw.	57
23	(tension adj3 vagina$).tw.	9
24	TVT.tw.	4
25	retropubic$.tw.	22
26	SUBURETHRAL SLINGS/	4
27	(sling$ adj3 (procedure$ or operat$)).tw.	4
28	transobturator$.tw.	0
29	minisling$.tw.	0
30	MUS.tw.	0
31	SURGICAL MESH/	35
32	"PROSTHESES AND IMPLANTS"/	18
33	(mini adj sling$).tw.	0
34	(miniarc or monarc).tw.	0
35	(pubovaginal adj sling$).tw.	0
36	colposuspension.tw.	11
37	(bulking adj2 agent$).tw.	1
38	(adjustable adj2 tape).tw.	0
39	plication.tw.	1
40	BODY WEIGHT/ or BODY WEIGHT CHANGES/ or WEIGHT GAIN/ or WEIGHT LOSS/ or OVERWEIGHT/ or OBESITY/ or OBESITY, MORBID/ or THINESS/	141
41	BMI.tw.	82
42	(obese or obesity).tw.	186
43	((under or over) adj weight).tw.	3
44	(lean$ or thin$).tw.	63
45	SMOKING/	78
46	(cigarette$ or smoking or smoke or smoker$ or tabacco or nicotine).tw.	391
47	TOBACCO SMOKE POLLUTION/	2

48	exp "TOBACCO USE CESSATION"/	113
49	FLUID THERAPY/	13
50	((fluid$ or liquid$ or drink$) adj2 (manipulat$ or manage$)).tw.	4
51	((restrict$ or reduce or reduction or increas$) adj2 (fluid$ or drink$)).tw.	7
52	or/20-51	930
53	MUSCLE CONTRACTION/	1
54	exp EXERCISE THERAPY/	77
55	PELVIC FLOOR/	4
56	and/54-55	3
57	((pelv$ or kegel$ or pfm) adj5 (exercis$ or strenght$ or therap$ or physiotherap$ or train$ or rehabilit$ or educat$ or reducat$ or re-educat$)).tw.	12
58	(pfmt or pfme).tw.	2
59	or/53,56-58	13
60	or/52,59	940
61	and/19,60	10

Appendix F Summary of identified studies

Question	Classification	Count
Percutaneous PTNS versus drugs		
	Number of papers identified	589
	Number of papers excluded	0
	Number of papers included	1
What is the effectiveness of Botulinum toxin A (200U) when compared to Botulinum toxin A (100U)		
	Number of papers identified	785
	Number of papers excluded	21
	Number of papers included	4
What is the effectiveness of Botulinum toxin A (200U) when compared to Botulinum toxin A (100U)		
	Number of papers identified	784
	Number of papers excluded	21
	Number of papers included	2
HEALTH ECONOMIC GLOBAL SEARCH (RESULTS OF DECEMBER RERUN SEARCH)		
	Number of papers identified	384

Question	Classification	Count
	Number of papers weeded out	371
	Number of papers received*	15
	Number of papers excluded	4
	Number of papers included	1
In women with OAB, what is the comparative effectiveness of pharmacological interventions?		
	Number of papers identified	1325
	Number of papers excluded	80
	Number of papers included	48
Percutaneous PTNS vs NAT for OAB		
	Number of papers identified	590
	Number of papers excluded	18
	Number of papers included	3
Neuromodulation. HEALTH ECONOMICS		
	Number of papers identified	102
	Number of papers weeded out	74
	Number of papers received*	6
	Number of papers excluded	1
	Number of papers included	3
Transcutaneoous PTNS for OAB		
	Number of papers identified	589
	Number of papers excluded	9
	Number of papers included	2

Question	Classification	Count
What is the comparative effectiveness of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure? HEALTH ECONOMICS		
	Number of papers identified	142
	Number of papers weeded out	134
	Number of papers received*	6
	Number of papers excluded	7
	Number of papers included	1
Sacral nerve stimulation vs NAT for OAB		
	Number of papers identified	736
	Number of papers excluded	10
	Number of papers included	0
What is the comparative effectiveness of interventions for women with failure of the primary tape procedure? HEALTH ECONOMIC		
	Number of papers identified	127
	Number of papers weeded out	50
	Number of papers received*	0
	Number of papers excluded	0
	Number of papers included	0
SNS vs PTNS for OAB		
	Number of papers identified	429
	Number of papers excluded	0
	Number of papers included	0

Question	Classification	Count
What is the effectiveness of Botulinum toxin A (200U) when compared to placebo		
	Number of papers identified	784
	Number of papers excluded	21
	Number of papers included	5
What is the comparative effectiveness of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure?		
	Number of papers identified	2584
	Number of papers excluded	61
	Number of papers included	38
What is the long-term effectiveness of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure?		
	Number of papers identified	2580
	Number of papers excluded	78
	Number of papers included	20
What is the comparative effectiveness of interventions for women with failure of the primary tape procedure?		
	Number of papers identified	2521
	Number of papers excluded	19
	Number of papers included	15
What patient characteristics are predictors of primary tape failure		
	Number of papers identified	2522

Question	Classification	Count
	Number of papers excluded	26
	Number of papers included	6
Drugs for OAB - Health Economics		
	Number of papers identified	109
	Number of papers weeded out	0
	Number of papers received*	0
	Number of papers excluded	0
	Number of papers included	5
Drugs vs Neuro vs BoNT-A for OAB caused by DOA. HEALTH ECONOMICS		
	Number of papers identified	55
	Number of papers weeded out	45
	Number of papers received*	7
	Number of papers excluded	1
	Number of papers included	2

Appendix G Excluded studies

2006 Excluded studies

Bibliographic information	Reason for rejecting study
Authors: Amundsen C, Lau M, English SF, McGuire EJ. Title: Do urinary symptoms correlate with urodynamic findings. Journal Name: J Urol. Year: 1999	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI.
Authors: Bent AE, Richardson DA, Ostergard DR. Title: Diagnosis of lower urinary tract disorders in postmenopausal patients. Journal Name: Am J Obstet Gynecol. Year: 1983	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI.
Authors: Bergman A;Bader K;. Title: Reliability of the patient's history in the diagnosis of urinary incontinence. Journal Name: International Journal of Gynecology and Obstetrics. Year: 1990	Evalutes the predicitive value of certain questions for diagnosing stress UI or DI. Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI.
Authors: Bruschini H;. Title: Medical history value in female urinary incontinence: Editorial comment. Journal Name: International Braz J Urol. Year: 2002	Contains insufficient detail to calculate sensitivity, specificity, PPV, or NPV of the symptom of stress, mixed or urge UI relative to a UD diagnosis.
Authors: Byrne DJ;Hamilton Stewart PA;Gray BK;. Title: The role of urodynamics in female urinary stress incontinence. Journal Name: British Journal of Urology. Year: 1987	Study reports urodynamic findings in pts presenting with stress UI, but insufficient information to calculate sensitivity, specificity, positive and negative predictive values.
Authors: Cardozo LD;Stanton SL;. Title: Genuine stress incontinence and detrusor instability - A review of 200 patients. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 1980	Study reports clinical and urodynamic diagnoses, but insufficient information to calculate sensitivity, specificity, positive and negative predictive values.
Authors: Clarke B;. Title: The role of urodynamic assessment in the diagnosis of lower urinary tract disorders. Journal Name: International Urogynecology Journal. Year: 1997	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI.
Authors: Diokno AC;Normolle DP;Brown MB;Herzog AR;. Title: Urodynamic tests for female geriatric urinary incontinence. Journal Name: Urology. Year: 1990 Nov	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI.

Bibliographic information	Reason for rejecting study
Authors: Farrar DJ;Whiteside CG;Osborne JL;Turner-Warwick RT;. Title: A urodynamic analysis of micturition symptoms in the female. Journal Name: Surgery, Gynecology and Obstetrics. Year: 1975 Dec	Contains insufficient detail to calculate sensitivity, specificity, PPV, or NPV of the symptom of stress, mixed or urge UI relative to a UD diagnosis.
Authors: Gray M;McClain R;Peruggia M;Patrie J;Steers WD;. Title: A model for predicting motor urge urinary incontinence. Journal Name: Nursing Research. Year: 2001 Mar	Cannot calculate sensitivity, specificity, PPV, or NPV for clinical vs UD diagnosis due to insufficient information - data not presented in a way that would allow 2x2 tables to be completed.
Authors: Haylen BT;Sutherst JR;Frazer MI;. Title: Is the investigation of most stress incontinence really necessary?. Journal Name: British Journal of Urology. Year: 1989	Cannot differentiate between those with stress UI and urgency or urge UI from those with stress UI and urge UI only therefore insufficient information to work out complete sensitivity, specificity, PPV, NPV.
Authors: Hilton P;Stanton SL;. Title: Algorithmic method for assessing urinary incontinence in elderly women. Journal Name: British Medical Journal Clinical Research Ed. Year: 1981 Mar 21	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI population.
Authors: Jarvis GJ, Hall S, Stamp S, Millar DR, Johnson A. Title: An assessment of urodynamic examination in incontinent women. Journal Name: Br J Obstet Gynaecol. Year: 1980	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI.
Authors: Kirschner-Hermanns R;Scherr PA;Branch LG;Wetle T;Resnick NM;. Title: Accuracy of survey questions for geriatric urinary incontinence. Journal Name: Journal of Urology. Year: 1998 Jun	Study evaluates predicitive value of 5 questions relative to UD diagnosis. Includes men and women and does not report results separately for women.
Authors: Kong TK;Morris JA;Robinson JM;Brocklehurst JC;. Title: Predicting urodynamic dysfunction from clinical features in incontinent elderly women. Journal Name: Age and Ageing. Year: 1990 Jul	Study reports clinical and urodynamic diagnoses, but insufficient information to calculate sensitivity, specificity, positive and negative predictive values.
Authors: Korda A;Krieger M;Hunter P;Parkin G;. Title: The value of clinical symptoms in the diagnosis of urinary incontinence in the female. Journal Name: Australian and New Zealand Journal of Obstetrics and Gynaecology. Year: 1987	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI.
Authors: Kujansuu E;Kauppila A;. Title: Scored urological history and urethrocystometry in the differential diagnosis of female urinary incontinence. Journal Name: Annales Chirurgiae et Gynaecologiae. Year: 1982	Evaluates correlation of urgency scores with UD findings. Not relevant to UI guideline questions on history or urodynamics.
Authors: Kujansuu E;Heikkinen J;Riippa P;Kauppila A;. Title: Degree of female stress urinary incontinence: An objective classification by simultaneous urethrocystometry. Journal Name: Gynecologic and Obstetric Investigation. Year: 1984	Study investigates correlation between stress UI severity and UPP. Does not address UI guideline questions.

Bibliographic information	Reason for rejecting study
Authors: Le Coutour X, Jung-Faerber S, Klein P, Renaud R. Title: Female urinary incontinence: comparative value of history and urodynamic investigations. Journal Name: Eur J Obs & Gynec and Reproductive Biology. Year: 1990	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI.
Authors: Matharu G;Donaldson MMK;McGrother CW;Matthews RJ;. Title: Relationship between urinary symptoms reported in a postal questionnaire and urodynamic diagnosis. Journal Name: Neurourology and Urodynamics. Year: 2005	The study explores the relationship between self-reported symptoms and urodynamic diagnoses; but these were separated by 8 weeks, during which women were included in a RCT evaluating a nurse-led continence service. Inappropriate to compare diagnoses after such an intervention as the initial diagnosis may have changed after intervention.
Authors: Ng RKW, Murray A. Title: Can we afford to take short cuts in the management of stress urinary incontinence?. Journal Name: Singapore Med J. Year: 1993	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI.
Authors: Phua SM;Low JJ;Chew SY;. Title: The role of urodynamics in evaluating incontinent females. Journal Name: Singapore Medical Journal. Year: 1992 Apr	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI. Stress UI population probably includes mixed UI.
Authors: Ramsay IN, Ali HM, Heslington K, Hilton P. Title: Can scoring the severity of symptoms help to predict the urodynamic diagnosis?. Journal Name: Int Urogynecol J. Year: 1995	Not relevant to the UI guideline question on test-retest reliability of symptom scoring, and insufficient data to calculate sensitivity, specificity, PPV or NPV for UD vs. history.
Authors: Ramsay IN, Hilton P, Rice N. Title: The symptomatic characterization of patients with detrusor instability and those with genuine stress incontinence. Journal Name: Int Urogynecol J. Year: 1993	Investigates the predictive value of certain symptoms from history in giving a urodynamic diagnosis, and builds a model based on the findings. Not relevant to UI guideline questions, as insufficient data given to calculate sensitivity, specificity, PPV or NPV for UD vs. history. Stress UI probably includes pts with mixed UI.
Authors: Roongruangsilp U;Lertsithichai P;Kochakarn W;Ratana-Olarn K;. Title: Correlation between symptoms and urodynamic findings in Thai female patients with urinary incontinence. Journal Name: Journal of the Medical Association of Thailand. Year: 2005 Mar	Study considers findings on history and urodynamics but the data presented cannot be used in a 2x2 diagnostic accuracy table.
Authors: Thiede HA, Saini VD. Title: Urogynecology: comments and caveatsq. Journal Name: Am J Obstet Gynecol. Year: 1987	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI.
Authors: Valente S. Title: The usefulness of urodynamics in urogynaecology disorders. Journal Name: Clin Exp Obs Gyn. Year: 1988	Study reports accuracy of history relative to UD diagnosis but gives no details of how either diagnosis reached. Excluded due to insufficient detail.
Authors: van Waalwijk van Doorn ES;Ambergen AW;Janknegt RA;. Title: Detrusor activity index: quantification of detrusor overactivity by ambulatory monitoring.[see comment]. Journal Name: Journal of Urology. Year: 1997 Feb	Insufficient data to calculate sensitivity, specificity, PPV and NPV for UD vs. clinical diagnosis of stress, mixed or urge UI.

Bibliographic information	Reason for rejecting study
Authors: Walters MD, Shields LE. Title: The diagnostic value of history, physical examination, and the Q-tip cotton swab test in women with urinary incontinence. Journal Name: Am J Obstet Gynecol. Year: 1988	Can't determine % with clinical diagnosis from papers, also mixed UI included in stress UI proportions.

Pelvic floor assessment

Bibliographic information	Reason for rejecting study
Authors: Isherwood PJ;Rane A;. Title: Comparative assessment of pelvic floor strength using a perineometer and digital examination. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 2000	Compares 2 tests, no test-retest reliability information therefore does not address UI guideline questions.
Authors: Sartore A;Pregazzi R;Bortoli P;Grimaldi E;Ricci G;Guaschino S;. Title: The urine stream interruption test and pelvic muscle function in the puerperium. Journal Name: International Journal of Gynecology and Obstetrics. Year: 2002	Compared digital, vaginal manometry, and urine stream interruption test for assessing pelvic floor function. No test-retest data therefore not relevant to UI guideline questions.
Authors: Sartore A;Pregazzi R;Bortoli P;Grimaldi E;Ricci G;Guaschino S;. Title: Perineal evaluation in the puerperium: role of testing with a cotton-tipped swab. Journal Name: Journal of Reproductive Medicine. Year: 2002	Study describes use of digital test, perineometry, and urine stream interruption score in the assessment of pelvic floor in postpartum women. No test-retest reliability data therefore not relevant to UI guideline questions.

Neurophysiology

Bibliographic information	Reason for rejecting study
Authors: Bakas P, Liapis A, Karandreas A, Creatsas G. Title: Pudendal nerve terminal motor latency in women with genuine stress incontinence and prolapse. Journal Name: Gynecol Obstet Invest. Year: 2001	Observational study, recording pudendal nerve terminal motor latency times in patients with SUI. Does not address the role of neurophysiology in the assessment of women with UI or OAB.

Assessment of prolapse – None excluded

Urine testing

Bibliographic information	Reason for rejecting study
Authors: Anon. Title: European Urinalysis Guidelines. Journal Name: Scand J Clin Lab Invest. Year: 2000	Background information regarding urinalysis - guidelines checked for any relevant information to urine testing questions in UI guideline.

Bibliographic information	Reason for rejecting study
Authors: Hurlbut TA, Littenberg B, and the diagnostic technology assessment consortium. Title: The diagnostic accuracy of rapid dipstick tests to predict urinary tract infection. Journal Name: Clinical Microbiology and Infectious Diseases. Year: 1991	A systematic review of studies that considered accuracy of urine dipstick relative to culture in women with UTI (but no UI, therefore not relevant to guideline questions).
Authors: Lammers RL;Gibson S;Kovacs D;Sears W;Strachan G;. Title: Comparison of test characteristics of urine dipstick and urinalysis at various test cutoff points. Journal Name: Annals of Emergency Medicine. Year: 2001 Nov	A comparison of the diagnostic accuracy of urine reagent strips vs. urine culture for UTI in women presenting with dysuria, frequency, urgency (none had UI). Insufficient data presented to be able to calculate sensitivity, specificity, PPV, NPV. Authors main aim was to compare results of culture and dipstick at various cut-off points, and then determine how this affected the decision to treat UTI.
Authors: Lenke RR, van Dorsten JP. Title: The efficacy of the nitrite test and microsopic urinalysis in predicting urine culture results. Journal Name: Am J Obstet Gynecol. Year: 1981	The population was pregnant women at risk of pyelonephritis, not women with UI.
Authors: Ouslander JG;Schapira M;Schnelle JF;. Title: Urine specimen collection from incontinent female nursing home residents. Journal Name: Journal of the American Geriatrics Society. Year: 1995	Aim of study is to compared urine culture results when specimen obtained by clean catch or catheterisation. Dipstick testing and urine culture done but diagnostic results by both methods not presented, therefore it cannot inform the urine testing questions of UI guideline.

Assessment of residual urine

Bibliographic information	Reason for rejecting study
Authors: Alnaif B, Drutz HP. Title: The accuracy of portable abdominal ultrasound equipment in measuring postvoid residual volume. Journal Name: Int Urogynecol J. Year: 1999	Studied % of ultrasound values that were within 25% of the catheterised volume. Does not address the diagnostic accuracy question for residual urine.
Authors: Mainprize TC, Drutz HP. Title: Accuracy of total bladder volume and residual urine measurements: comparison between real-time ultrasonography and catheterization. Journal Name: Am J Obstet Gynecol. Year: 1989	Study does not consider accuracy per se, but whether a formula could be used to determine total bladder and residual urine volumes.
Authors: Roehrborn CG, Peters PC. Title: Can transabdominal ultrasound estimation of postvoiding residual (PVR) replace catheterization?. Journal Name: Urology. Year: 1988	Study comparing relationship of ultrasound measurement of residual urine with catheterised volumes. No details of the 81 pts given; % of women not stated; men included implicit by reasons given for assessment (incl prostatic hypertroprophy).

Symptom scoring and QOL assessment

Bibliographic information	Reason for rejecting study
Authors: Blackwell AL;Yoong W;Moore KH;. Title: Criterion validity, test-retest reliability and sensitivity to change of the St George Urinary Incontinence Score. Journal Name: BJU International. Year: 2004 Feb	Not a ICI Grade A questionnaire therefore not considered by GDG.
Authors: Coyne K;Revicki D;Hunt T;Corey R;Stewart W;Bentkover J;Kurth H;Abrams P;. Title: Psychometric validation of an overactive bladder symptom and health-related quality of life questionnaire: The OAB-q. Journal Name: Quality of Life Research. Year: 2002	No test retest reliability data.
Authors: Finkelstein MM;Skelly J;Kaczorowski J;Swanson G;. Title: Incontinence Quality of Life Instrument in a survey of primary care physicians. Journal Name: Journal of Family Practice. Year: 2002 Nov	Study evaluates use of I-QOL to measure impact of UI on QOL; does not consider use of questionnaire to measure UI severity as in the UI guideline questions.
Authors: Hajebrahimi S;Corcos J;Lemieux MC;. Title: International consultation on incontinence questionnaire short form: Comparison of physician versus patient completion and immediate and delayed self-administration. Journal Name: Urology. Year: 2004	Not a ICI Grade A questionnaire, therefore not considered by GDG.
Authors: Harvey MA;Kristjansson B;Griffith D;Versi E;. Title: The Incontinence Impact Questionnaire and the Urogenital Distress Inventory: a revisit of their validity in women without a urodynamic diagnosis. Journal Name: American Journal of Obstetrics and Gynecology. Year: 2001 Jul	Study assesses validity of short-forms of IIQ and UDI in women with a urodynamic diagnosis, but no test retest reliability data.
Authors: Ishiko O;Sumi T;Hirai K;Ogita S;. Title: Classification of female urinary incontinence by the scored incontinence questionnaire. Journal Name: International Journal of Gynaecology and Obstetrics. Year: 2000 Jun	Modified Gaudenz questionnaire evaluated which is not an ICI recommended questionnaire.
Authors: Lubeck DP;Prebil LA;Peeples P;Brown JS;. Title: A health related quality of life measure for use in patients with urge urinary incontinence: A validation study. Journal Name: Quality of Life Research. Year: 1999	Not a ICI Grade A questionnaire therefore not considered by GDG.
Authors: Reese PR;Pleil AM;Okano GJ;Kelleher CJ;. Title: Multinational study of reliability and validity of the King's Health Questionnaire in patients with overactive bladder. Journal Name: Quality of Life Research. Year: 2003	No test retest reliability data.
Authors: Sandvik H;Hunskaar S;Seim A;Hermstad R;Vanvik A;Bratt H;. Title: Validation of a severity index in female urinary incontinence and its implementation in an epidemiological survey. Journal Name: Journal of Epidemiology and Community Health. Year: 1993	No test retest reliability data.

Bibliographic information	Reason for rejecting study
Authors: Shaw C;Matthews RJ;Perry SI;Assassa RP;Williams K;McGrother C;Dallosso H;Jagger C;Mayne C;Clarke M;. Title: Validity and reliability of an interviewer-administered questionnaire to measure the severity of lower urinary tract symptoms of storage abnormality: The Leicester Urinary Symptom Questionnaire. Journal Name: BJU International. Year: 2002	Not a ICI Grade A questionnaire therefore not considered by GDG.
Authors: Shaw C;Matthews RJ;Perry SI;Williams K;Spiers N;Assassa RP;McGrother C;Dallosso H;Jagger C;Mayne C;Clarke M;. Title: Validity and reliability of a questionnaire to measure the impact of lower urinary tract symptoms on quality of life: The Leicester impact scale. Journal Name: Neurourology and Urodynamics. Year: 2004	Not a ICI Grade A questionnaire therefore not considered by GDG.
Authors: Shumaker SA;Wyman JF;Uebersax JS;McClish D;Fantl JA;. Title: Health-related quality of life measures for women with urinary incontinence: the Incontinence Impact Questionnaire and the Urogenital Distress Inventory. Continence Program in Women (CPW) Research Group. Journal Name: Quality of Life Research. Year: 1994 Oct	No test retest reliability data.
Authors: Stach-Lempinen B;Kirkinen P;Laippala P;Metsanoja R;Kujansuu E;. Title: Do objective urodynamic or clinical findings determine impact of urinary incontinence or its treatment on quality of life?. Journal Name: Urology. Year: 2004	No test retest reliability data.
Authors: van d;De L;Roovers J;Heintz APM;. Title: Measuring health-related quality of life in women with urogenital dysfunction: The urogenital distress inventory and incontinence impact questionnaire revisited. Journal Name: Neurourology and Urodynamics. Year: 2003	No test retest reliability data.
Authors: Yalcin I;Bump RC;. Title: Validation of two global impression questionnaires for incontinence. Journal Name: American Journal of Obstetrics and Gynecology. Year: 2003 Jul	Not a ICI Grade A condition-specific questionnaire therefore not considered by GDG.

Bladder diaries

Bibliographic information	Reason for rejecting study
Authors: Dmochowski RR;Sanders SW;Appell RA;Nitti VW;Davila GW;. Title: Bladder-health diaries: an assessment of 3-day vs 7-day entries. Journal Name: BJU International. Year: 2005 Nov	No test-retest reliability data.

Authors: Larsson G;Blixt C;Janson G;Victor A;. Title: The frequency/volume chart as a differential diagnostic tool in female urinary incontinence. Journal Name: International Urogynecology Journal. Year: 1994	Study investigates differential diagnostic ability of bladder diaries, not test-retest reliability for assessing severity which is the question asked by the GDG.
Authors: Tincello DG;Richmond DH;. Title: The Larsson frequency/volume chart is not a substitute for cystometry in the investigation of women with urinary incontinence. Journal Name: International Urogynecology Journal. Year: 1998	Study investigates differential diagnostic ability of bladder diaries, not test-retest reliability for assessing severity which is the question asked by the GDG.

Pad testing

Bibliographic information	Reason for rejecting study
Authors: Abdel-Fattah M;Barrington JW;Youssef M;. Title: The standard 1-hour pad test: Does it have any value in clinical practice?. Journal Name: European Urology. Year: 2004	Does not address UI guideline questions in relation to pad testing; considers whether 1-hr pad test findings correlate with subjective and QOL assessment.
Authors: Jakobsen H;Vedel P;Andersen JT;. Title: Objective assessment of urinary incontinence: An evaluation of three different pad-weighing tests. Journal Name: Neurourology and Urodynamics. Year: 1987	Study compares findings of 3 pad tests (40mins, 1 hr, 48 hrs), but does not consider test-retest reliability of each, therefore does not address guideline question.
Authors: Matharu GS;Assassa RP;Williams KS;Donaldson M;Matthews R;Tincello DG;Mayne CJ;. Title: Objective Assessment of Urinary Incontinence in Women: Comparison of the One-Hour and 24-Hour Pad Tests. Journal Name: European Urology. Year: 2004	Does not address the UI guideline questions in relation to pad testing.
Authors: Mayne CJ;Hilton P;. Title: Short pad test: Standardisation of method and comparison with 1-hour test. Journal Name: Neurourology and Urodynamics. Year: 1988	Evaluates correlation between 3 pad tests. Not relevant to the UI guideline questions.
Authors: Mouritsen L, Berlid G, Hertz J. Title: Comparison of different methods for quantification of urinary leakage in incontinent women. Journal Name: Neurourology and Urodynamics. Year: 1989	Provides limited data relevant to the UI guideline questions on pad testing - reports correlation coefficient for reliability of 24-hr pad tests, but did not report the actual findings of both 24-hours tests.
Authors: Paick JS;Ku JH;Shin JW;Park K;Son H;Oh SJ;Kim SW;. Title: Significance of pad test loss for the evaluation of women with urinary incontinence. Journal Name: Neurourology and Urodynamics. Year: 2005	Does not address the UI guideline questions regarding pad testing.
Authors: Persson J;Eten BC;Wolner-Hanssen P;. Title: An ultra-short perineal pad-test for evaluation of female stress urinary incontinence treatment. Journal Name: Neurourology and Urodynamics. Year: 2001	Study evaluated feasibility and reproducibility of a pad test based on a standardised 1-minute exercise. Not an accepted test and therefore not relevant to UI guideline.

Bibliographic information	Reason for rejecting study
Authors: Richmond DH;Sutherst JR;Brown MC;. Title: Quantification of urine loss by weighing perineal pads. Observation on the exercise regimen. Journal Name: British Journal of Urology. Year: 1987	Compares 2 exercise regimens used in a 2-hr pad test. Not relevant to UI guideline questions.
Authors: Ryhammer AM;Laurberg S;Djurhuus JC;Hermann AP;. Title: No relationship between subjective assessment of urinary incontinence and pad test weight gain in a random population sample of menopausal women. Journal Name: Journal of Urology. Year: 1998	Study investigates association between reporting of UI and pad test findings. Does not address UI guideline questions in relation to pad tests.
Authors: Sutherst JR;Brown MC;Richmond D;. Title: Analysis of the pattern of urine loss in women with incontinence as measured by weighing perineal pads. Journal Name: British Journal of Urology. Year: 1986	Does not address UI guideline questions in relation to pad testing; notes in the abstract that reproducibility of the test has been studied in 50 patients (study n=335) but no data in relation to this presented in the report.
Authors: Sutherst J, Brown M, Shawer M. Title: Assessing the severity of urinary incontinence in women by weighing perineal pads. Journal Name: Lancet. Year: 1981	Compared pad weight gain on 1-hr pad test in women with UI vs. women without UI. Study does not address UI guideline questions relating to pad testing.
Authors: Thind P;Gerstenberg TC;. Title: One-hour ward test vs. 24-hour home pad weighing test in the diagnosis of urinary incontinence. Journal Name: Neurourology and Urodynamics. Year: 1991	Evaluates correlation between 1-hr and 48-hr pad test findings, not test-retest reliability of each test. Therefore not relevant to UI guideline questions on pad testing.
Authors: Versi E;Cardozo LD;. Title: Perineal pad weighing versus videographic analysis in genuine stress incontinence. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 1986	Study compares pad test and urodynamic findings - does not address UI guideline questions in relation to either investigation.
Authors: Wall LL;Wang K;Robson I;Stanton SL;. Title: The Pyridium pad test for diagnosing urinary incontinence: A comparative study of asymptomatic and incontinent women. Journal Name: Journal of Reproductive Medicine for the Obstetrician and Gynecologist. Year: 1990	Investigates pad test findings in continent and incontinent women. Does not address UI guideline questions regarding pad testing.
Authors: Winkens R, Nelissen-Arets H, Stobberingh E. Title: Validity of the urine dipslide under daily practice conditions.. Journal Name: Family Practice. Year: 2003	Not relevant to guideline questions on urine testing.

Urodynamic testing

Bibliographic information	Reason for rejecting study
Authors: Blaivas JG;Groutz A;Verhaaren M;. Title: Does the method of cystometry affect the incidence of involuntary detrusor contractions? A prospective randomized	Not relevant to UI guideline questions.

Bibliographic information	Reason for rejecting study
urodynamic study. Journal Name: Neurourology and Urodynamics. Year: 2001	
Authors: Castleden CM;Duffin HM;Asher MJ;. Title: Clinical and urodynamic studies in 100 elderly incontinent patients. Journal Name: British Medical Journal. Year: 1981	Observation of urodynamic findings in 100 patients aged over 65 yrs with UI. Does not address UI guideline questions.
Authors: Digesu GA;Hutchings A;Salvatore S;Selvaggi L;Milani R;Khullar V;. Title: Pressure Flow Study: A Useful Diagnostic Test of Female Lower Urinary Tract Symptoms. Journal Name: Neurourology and Urodynamics. Year: 2004	Observations of pressure flow parameters in women with LUTS; does not address guideline questions in relation to urodynamics.
Authors: Faysal MH;Constantinou CE;Rother LF;Govan DE;. Title: The impact of bladder neck suspension on the resting and stress urethral pressure profile: A prospective study comparing controls with incontinent patients preoperatively and postoperatively. Journal Name: Journal of Urology. Year: 1981	Observations pre and post-op - does not consider whether the pre-op findings predict outcome therefore not relevant to UI guideline questions.
Authors: Hebert DB, Ostergard DR. Title: Vesical Instability: urodynamic parameters by microtip transducer catheters. Journal Name: Obstet Gynecol. Year: 1982	Study describes findings in women with DO using different UD techniques (urethrocystometry, UPP, but unable to calculate all diagnostic accuracy data from results given).
Authors: Holtedahl K;Verelst M;Schiefloe A;Hunskaar S;. Title: Usefulness of urodynamic examination in female urinary incontinence. Lessons from a population-based, randomized, controlled study of conservative treatment. Journal Name: Scandinavian Journal of Urology and Nephrology. Year: 2000	Groups did not receive same treatment therefore inappropriate to analyse findings in respect of pre-tx UD due to confounding factors
Authors: Kujansuu E;Kauppila A;Lahde S;. Title: Correlation between urethrovesical anatomy and urethral closure function in female stress urinary incontinence before and after operation: Urethrocystographic and urethrocystometric evaluation. Journal Name: Urologia Internationalis. Year: 1983	Investigates whether pre-op urodynamics have prognostic value, but only reports pre- and post-operative observations. Does not address whether UD predict complications.
Authors: McLennan MT;Bent AE;. Title: Supine empty stress test as a predictor of low valsalva leak point pressure. Journal Name: Neurourology and Urodynamics. Year: 1998	An investigation into whether the supine empty stress test was useful in predicting pts with low Valsalva LPP (above or below 60cm). Does not address guideline questions in relation to urodynamics.
Authors: McLennan MT;Melick CF;Bent AE;. Title: Leak-point pressure: clinical application of values at two different volumes. Journal Name: International Urogynecology Journal. Year: 2000 Jun	Investigates MUCP and LPP at different bladder volumes. Does not address UI guideline questions in relation to urodynamics.
Authors: Pajoncini C;Costantini E;Rociola W;Porena M;. Title: The maximum urethral closure pressure and the Valsalva leak point pressure in the diagnosis of intrinsic sphincter deficiency: Preliminary results. Journal Name: Acta Urologica	Correlates MUCP and VLPP values at different thresholds with pt characteristics. Does not address UI guideline questions in relation to urodynamics

Bibliographic information	Reason for rejecting study
Italica. Year: 1999	
Authors: Pajoncini C;Costantini E;Guercini F;Porena M;. Title: Intrinsic sphincter deficiency: do the maximum urethral closure pressure and the Valsalva leak-point pressure identify different pathogenic mechanisms?. Journal Name: International Urogynecology Journal. Year: 2002	Study considers severity of UI vs MUCP and VLPP findings. Does not address UI guideline questions in relation to urodynamics
Authors: Pajoncini C;Costantini E;Guercini F;Bini V;Porena M;. Title: Clinical and urodynamic features of intrinsic sphincter deficiency. Journal Name: Neurourology and Urodynamics. Year: 2003	Observations/ correlations of features with ISD - does not address guidleline questions in relation to assessment.
Authors: Resnick NM;Brandeis GH;Baumann MM;DuBeau CE;Yalla SV;Abrams P;Blaivas JG;Malone-Lee J;. Title: Misdiagnosis of urinary incontinence in nursing home women: Prevalence and a proposed solution. Journal Name: Neurourology and Urodynamics. Year: 1996	Study compared findings of single- and multi-channel cystometry in women with 'detrusor hyperactivity with impaired contractility', which is not an accepted/standardised definition, therefore study excluded.
Authors: Richardson DA;. Title: Value of the cough pressure profile in the evaluation of patients with stress incontinence. Journal Name: American Journal of Obstetrics and Gynecology. Year: 1986	Considered UCP for diagnosis of stress UI - but pressure profilometry used to assess cause of stress UI not to confirm UI is stress UI, therefore exclude.
Authors: Versi E. Title: Discriminant analysis of urethral pressure profilometry data for the diagnosis of genuine stress incontinence. Journal Name: Br J Obs Gynae. Year: 1990	Study evaluates diagnostic accuracy of UPP vs video UD; pressure studies vs cystometry not a valid comparison therefore excluded.
Authors: Versi E;Cardozo L;Studd J;Cooper D;. Title: Evaluation of urethral pressure profilometry for the diagnosis of genuine stress incontinence. Journal Name: World Journal of Urology. Year: 1986	UPP not used to diagnose stress UI therefore study not relevant.

Other tests of urethral competence

Bibliographic information	Reason for rejecting study
Authors: Bergman A;McCarthy TA;Ballard CA;Yanai J;. Title: Role of the Q-tip test in evaluating stress urinary incontinence. Journal Name: Journal of Reproductive Medicine for the Obstetrician and Gynecologist. Year: 1987	Study aimed to assess correlation between Q-tip and UD findings of stress UI. Reports no correlation. Does not address guideline questions in relation to the Q-tip test.
Authors: Fedorkow DM;Sand PK;Retzky SS;Johnson DC;. Title: The cotton swab test: Receiver-operating characteristic curves. Journal Name: Journal of Reproductive Medicine for the Obstetrician and Gynecologist. Year: 1995	Study evaluated value of Qtip test for diagnosis of stress UI at different angles. Does not address use of the test in relation to hypermobility.

Authors: Montz FJ;Stanton SL;. Title: Q-Tip test in female urinary incontinence. Journal Name: Obstetrics and Gynecology. Year: 1986	Reports Q-tip results for 100 women with UI, and considers its diagnostic accuracy compared with UD for diagnosing stress UI. Does not consider use of the test for hypermobility.
Authors: Pollak JT;Jenkins P;Kopka SL;Davila GW;. Title: Effect of genital prolapse on assessment of bladder neck mobility by the Q-tip test. Journal Name: Obstetrics and Gynecology. Year: 2003	Study investigates effect of prolapse and bladder fullness on Q-tip angles, therefore addressing reliability of the test. Not a UI guideline question.
Authors: Tapp K;Connolly A;Visco AG;. Title: Evaluation of Aa point and cotton-tipped swab test as predictors of urodynamic stress incontinence. Journal Name: Obstetrics and Gynecology. Year: 2005	Comparison of the abilities of the Aa point and the Q-tip test to predict a diagnosis of stress UI, which is not the primary use of the test (hypermobility). Odds ratios for having a diagnosis of stress UI given for both tests. Sens, spec, PPV, NPV for the Qtip test also quoted but no raw data.

Endoscopy

Bibliographic information	Reason for rejecting study
Authors: Groutz A;Samandarov A;Gold R;Pauzner D;Lessing JB;Gordon D;. Title: Role of urethrocystoscopy in the evaluation of refractory idiopathic detrusor instability. Journal Name: Urology. Year: 2001 Oct	Urethroscopy and ultrasound of the urinary tract done in an exploratory study in women refractory to 6 months antimuscarinic treatment. Such 'routine' use does not reflect UK clinical practice. Nothing in the study indicated that cystoscopy was necessary.
Authors: Sokol ER, Patel SR, Sung VW et al. Title: Results of urine cytology testing and cystoscopy in women with irritative voiding symptoms. Journal Name: Am J Obstet Gynecol. Year: 2005	A survey of findings in women with irriative voiding symptoms, only 6% of whom had UI; does not inform the guideline in terms of the role of cystoscopy in the assessment of women with UI.

Imaging

Bibliographic information	Reason for rejecting study
Authors: Bhatia NN;Ostergard DR;McQuown D;. Title: Ultrasonography in urinary incontinence. Journal Name: Urology. Year: 1987	Measurement of descent of urethrovesical junction undertaken by Q-tip and ultrasound in 13 women pre and post surgery for stress UI. Does not address the guideline questions in relation to imaging.
Authors: Dietz HP, Wilson PD. Title: Anatomical assessment of the blaader outlet and proximal urethra using ultrasound and videocystourethrography. Journal Name: Int Urogynecol J. Year: 1998	Observations of bladder descent & bladder neck by ultrasound and X-ray in women undergoing videocystometry. Study does not address the role of imaging in the assessment of women with UI.
Authors: Dietz HP, Clarke B. Title: Translabial colo dopler urodynamics. Journal Name: Int Urogynecol J. Year: 2001	% agreement and kappa scores reported for translabial ultrasound plus MC urodynamics and (vs) videocystometry plus fluoroscopic imaging - no details of pts, and gender not stated although authors based at Women's hospital. Could probably calcultae sens, spec, PPV, NPV from data in table 1.

Bibliographic information	Reason for rejecting study
Authors: Dietz HP, McKnoulty L, Clarke B. Title: Translabial coloc Doppler for imaging in urogynecology: a preliminary report. Journal Name: Ultrasound Obstet Gynecol. Year: 1999	Study compares doppler with multichannel urodynamics; endpoint is "more than minimal leakage" which is imprecise and not defined, therefore excluded as not useable data.
Authors: Kolbl H, Bernaschek G, Wolf G. Title: A comparative study of perineal ultrasound scanning and urethrocystography in patients with genuine stress incontinence. Journal Name: Arch Gynecol Obstet. Year: 1988	Study does not report data in a way that allows calculation of diagnostic accuracy parameters; only posterior urethrovesical angles reported.
Authors: Perk H;Oral B;Yesildag A;Serel TA;Ozsoy M;Turgut T;. Title: Magnetic resonance imaging for stress incontinence: evaluation of patients before and after surgical correction. Journal Name: European Journal of Radiology. Year: 2002 Oct	Authors measured bladder base descent, posterior urethrovesical angle, and angle of urethral inclination by MRI in 15 women pre and post surgical correction for UD stress UI. Does not address the guideline questions in relation to imaging.
Authors: Schaer GN, Koechli OR, Schuessler B, Haller U. Title: Perineal ultrasound for evaluating the bladder neck in urinary stress incontinence. Journal Name: Obstet Gynecol. Year: 1995	Study evaluates reproducibility of perineal ultrasonography for measurement of urethrovesical junction, compared with lateral chain urethrocystography. Not relevant to the UI guideline questions.
Authors: Yang JM;Huang WC;. Title: Discrimination of bladder disorders in female lower urinary tract symptoms on ultrasonographic cystourethrography. Journal Name: Journal of Ultrasound in Medicine. Year: 2002 Nov	Considers correlation of morphological and anatomical features of bladder disorders in women with LUTS. Does not address UI guideline quesitons in relation to imaging.

Information provision

Bibliographic information	Reason for rejecting study
Authors: Herschorn S;Becker D;Miller E;Thompson M;Forte L;. Title: Impact of a health education intervention in overactive bladder patients. Journal Name: Canadian Journal of Urology. Year: 2004 Dec	Not relevant to question regarding impact of providing information to women in terms of their satisfaction with the outcomes of treatment (satisfaction was not an outcome) in the comparison of health education plus tolterodine vs. tolterodine alone.

Conservative management

Lifestyle

Bibliographic information	Reason for rejecting study
Authors: Edelstein BA;. Title: Effects of caffeine withdrawal on nocturnal enuresis, insomnia, and behavior restraints. Journal Name: Journal of Consulting and Clinical Psychology. Year: 1984	Case-series (n=9), gender not stated, reporting effects of caffeine reduction on nocturnal enuresis. Higher evidence level studies found therefore exclude this study.

Bibliographic information	Reason for rejecting study
Authors: Griffiths DJ;McCracken PN;Harrison GM;Gormley EA;. Title: Relationship of fluid intake to voluntary micturition and urinary incontinence in geriatric patients. Journal Name: Neurourology and Urodynamics. Year: 1993	A study investigating the relationship between fluid intake and micturition over 24 hours in elderly men and women with UI (n=128, 59% women). Data not reported separately for women. Information does not add to info from other studies considered for this question.
Authors: Jirovec MM;. Title: The impact of daily exercise on the mobility, balance and urine control of cognitively impaired nursing home residents. (Research). Journal Name: International Journal of Nursing Studies. Year: 1991	Study about improved mobility in cognitively impaired adults. Does not address the question of the impact of physical exercise on UI.
Authors: Johnson II TM;Sattin RW;Parmelee P;Fultz NH;Ouslander JG;. Title: Evaluating potentially modifiable risk factors for prevalent and incident nocturia in older adults. Journal Name: Journal of the American Geriatrics Society. Year: 2005	Cannot tell % women, and while study looked at fluid and coffee intake, the level of intake was not defined.
Authors: Rasmussen KL;Krue S;Johansson LE;Knudsen HJ;Agger AO;. Title: Obesity as a predictor of postpartum urinary symptoms. Journal Name: Acta Obstetricia et Gynecologica Scandinavica. Year: 1997	Case-control study addressing whether pre-pregnancy obesity is a risk for post-partum UI. Sig more cases had UI and urgency at baseline; confounding invalidates comparison.
Authors: Simmons SF;Alessi C;Schnelle JF;. Title: An intervention to increase fluid intake in nursing home residents: prompting and preference compliance. Journal Name: Journal of the American Geriatrics Society. Year: 2001	Investigates increasing fluid intake in incontinent nursing home residents in terms of hydration status. No UI-related outcomes reported.
Authors: Sustersic O;Kralj B;. Title: The influence of obesity, constitution and physical work on the phenomenon of urinary incontinence in women. Journal Name: International Urogynecology Journal. Year: 1998	Cross-sectional survey in Slovenia (n=101). Covers BMI and physical activity and UI, but lacks detail and does not add anything new to other larger cross-sectional surveys found.
Authors: Turkan A;Inci Y;Fazli D;. Title: The short-term effects of physical therapy in different intensities of urodynamic stress incontinence. Journal Name: Gynecologic and Obstetric Investigation. Year: 2005	Not relevant to lifestyle interventions question. Relevant to physical therapies (48 patients with stress UI underwent PFMT + Electrical stimulation; results assessed according to severity of UI; no comparison group).

Physical and behavioural therapies

Bibliographic information	Reason for rejecting study
Authors: Alewijnse D;Metsemakers JF;Mesters IE;van den BB;. Title: Effectiveness of pelvic floor muscle exercise therapy supplemented with a health education program to promote long-term adherence among women with urinary incontinence. Journal Name: Neurourology and Urodynamics. Year: 2003	Does not address a guideline question. Not a comparison of intensive vs. standard PFMT.
Authors: Berghmans LC;Hendriks HJ;Bo K;Hay-Smith EJ;de Bie RA;van Waalwijk van Doorn ES.;. Title: Conservative treatment of stress urinary incontinence in women: a	Aim of review was to assess quality of RCT evidence (conservative treatment for stress UI). No numerical data for outcomes presented. 17 of 24 studies included in Cochrane

Bibliographic information	Reason for rejecting study
systematic review of randomized clinical trials. Journal Name: British Journal of Urology. Year: 1998	systematic reviews.
Authors: Bower WF;Moore KH;Adams RD;Shepherd R;. Title: A urodynamic study of surface neuromodulation versus sham in detrusor instability and sensory urgency. Journal Name: Journal of Urology. Year: 1998	Before and after study; single application of TENS or control only. No longitudinal follow-up.
Authors: Burgio KL;Locher JL;Roth DL;Goode PS;. Title: Psychological improvements associated with behavioral and drug treatment of urge incontinence in older women. Journal Name: Journals of Gerontology Series B-Psychological Sciences and Social Sciences. Year: 2001	A secondary paper reporting psychological distress of women included in an RCT already included comparing behavioural management with oxybutynin and control.
Authors: Burgio KL;Goode PS;Locher JL;Richter HE;Roth DL;Wright KC;Varner RE;. Title: Predictors of outcome in the behavioral treatment of urinary incontinence in women. Journal Name: Obstetrics and Gynecology. Year: 2003	Secondary analysis of data from 3 RCTs (Burgio 1998, Burgio 2002, Goode 2003).
Authors: De Kruif YP;Van Wegen EEH;. Title: Pelvic floor muscle exercise therapy with myofeedback for women with stress urinary incontinence: A meta-analysis. Journal Name: Physiotherapy. Year: 1996	Includes studies of all designs, not only RCTs. The RCTs included are also included in the Cochrane systematic review of PFMT for UI in women (Hay-Smith).
Authors: Dumoulin C;Lemieux MC;Bourbonnais D;Gravel D;Bravo G;Morin M;. Title: Physiotherapy for persistent postnatal stress urinary incontinence: a randomized controlled trial. Journal Name: Obstetrics and Gynecology. Year: 2004	Not an appropriate control group (massage).
Authors: Engberg S;McDowell BJ;Donovan N;Brodak I;Weber E;. Title: Treatment of urinary incontinence in homebound older adults: interface between research and practice. Journal Name: Ostomy Wound Management. Year: 1997	Publication linked to a RCT included in Cochrane systematic review on Prompted voiding (Eustice 2000).
Authors: Ferguson KL;McKey PL;Bishop KR;Kloen P;Verheul JB;Dougherty MC;. Title: Stress urinary incontinence: effect of pelvic muscle exercise. Journal Name: Obstetrics and Gynecology. Year: 1990	A comparison of PFMT with a intravaginal resistance device. Not believed to be of relevance by the GDG.
Authors: Fujishiro T;Enomoto H;Ugawa Y;Takahashi S;Ueno S;Kitamura T;. Title: Magnetic stimulation of the sacral roots for the treatment of stress incontinence: an investigational study and placebo controlled trial. Journal Name: Journal of Urology. Year: 2000	A single session of magnetic stimulation with measurements after 1 week; as such does not address effectiveness of this intervention.
Authors: Fujishiro T;Takahashi S;Enomoto H;Ugawa Y;Ueno S;Kitamura T;. Title: Magnetic stimulation of the sacral roots for the treatment of urinary frequency and urge incontinence: an investigational study and placebo controlled trial.[see comment]. Journal Name: Journal of Urology. Year: 2002	A single session of magnetic stimulation with measurements after 1 week; as such does not address effectiveness of this intervention.

Bibliographic information	Reason for rejecting study
Authors: Goode PS;. Title: Behavioral and drug therapy for urinary incontinence. Journal Name: Urology. Year: 2004	A secondary analysis of data from a RCT (Burgio 1998 & Goode 2002).
Authors: Ishiko O;Ushiroyama T;Saji F;Mitsuhashi Y;Tamura T;Yamamoto K;Kawamura Y;Ogita S;. Title: beta(2)-adrenergic agonists and pelvic floor exercises for female stress incontinence. Journal Name: International Journal of Gynaecology and Obstetrics. Year: 2000	The intervention under evaluation is clenbuterol (with or without PFMT) which is not available in the UK.
Authors: Johnson VY;. Title: Effects of a submaximal exercise protocol to recondition the pelvic floor musculature. Journal Name: Nursing Research. Year: 2001	Compares submaximal vs. maximal contraction of pelvic floor muscle. Does not address a guideline question.
Authors: Nielsen AC, Sigsgaard I, Olsen M, Tolstrup M, Danneskiold-Samsoee B, Bock JE. Title: Trainability of the pelvic floor. A prospective study during pregnancy and after delivery. Journal Name: Acta Obstet Gynecol Scand. Year: 1988	Outcome is vaginal squeeze pressure. No UI outcomes. Does not address the questions re effectiveness of PFMT for prevention of UI.
Authors: Nissenkorn I;Shalev M;Radziszewski P;Dobronski P;Borkowski A;De Jong PR;. Title: Patient-adjusted intermittent electrostimulation for treating stress and urge urinary incontinence. Journal Name: BJU International. Year: 2004	Not a RCT; no control group.
Authors: Nygaard IE;Kreder KJ;Lepic MM;Fountain KA;Rhomberg AT;. Title: Efficacy of pelvic floor muscle exercises in women with stress, urge, and mixed urinary incontinence. Journal Name: American Journal of Obstetrics and Gynecology. Year: 1996	No outcomes reported by treatment allocation, only by type of UI or total group.
Authors: O'Brien J;Austin M;Sethi P;O'Boyle P;. Title: Urinary incontinence: prevalence, need for treatment, and effectiveness of intervention by nurse.[see comment]. Journal Name: BMJ. Year: 1991	No useable data. Results not reported separately for PFMT and control arms during the controlled part of the study. Unclear whether tx allocation was random, although subsequent publications of the study (21596, 21597) state so. No information on whether active tx and control grps similar at baseline.
Authors: O'Brien J;Long H;. Title: Urinary incontinence: long term effectiveness of nursing intervention in primary care. Journal Name: BMJ. Year: 1995	Follow-up study of O'Brien 1991, which was excluded.
Authors: Parkkinen A;Karjalainen E;Vartiainen M;Penttinen J;. Title: Physiotherapy for female stress urinary incontinence: Individual therapy at the outpatient clinic versus home-based pelvic floor training: A 5-year follow-up study. Journal Name: Neurourology and Urodynamics. Year: 2004	Treatment allocation (home or clinic PFMT) not randomised.
Authors: Ramsay IN;Thou M;. Title: A randomised, double blind, placebo controlled trial of pelvic floor exercises in the treatment of genuine stress incontinence. Journal Name: Neurourology and Urodynamics. Year: 1990	Abstract publication of RCT (PFMT vs. sham PFMT), not subsequently published in full.

Bibliographic information	Reason for rejecting study
Authors: Salvesen KA;Morkved S;. Title: Randomised controlled trial of pelvic floor muscle training during pregnancy.[see comment]. Journal Name: BMJ. Year: 2004	Focuses on outcome of duration of labour (irrelevant to UI guideline) from Morkved 2003, which is included.
Authors: Schnelle JF;MacRae PG;Ouslander JG;Simmons SF;Nitta M;. Title: Functional Incidental Training, mobility performance, and incontinence care with nursing home residents.[see comment]. Journal Name: Journal of the American Geriatrics Society. Year: 1995	Comparison of functional incidental training vs no functional incidental training (in addition to prompted voiding). No urinary outcomes reported.
Authors: Tapp AJS;Hills B;Cardozo LD;. Title: Randomised study comparing pelvic floor physiotherapy with the Burch colposuspension. Journal Name: Neurourology and Urodynamics. Year: 1989	Abstract publication, not subsequently published in full.
Authors: Theofrastous JP;Wyman JF;Bump RC;McClish DK;Elser DM;Elser DP;Bland DR;Fantl JA;Lentz SF;Furberg C;Shumaker SA;Earle BB;Morgan TM;. Title: Effects of pelvic floor muscle training on strength and predictors of response in the treatment of urinary incontinence. Journal Name: Neurourology and Urodynamics. Year: 2002	Secondary analysis of a RCT included in the Cochrane systematic review of PFMT for UI in women (Hay-Smith).
Authors: Thorp JM, Stephenson H, Jones LH, Cooper G. Title: Pelvic floor (Kegel) exercises - a pilot study in nulliparous women. Journal Name: International Urogynaecology Journal. Year: 1994	Outcomes are vaginal and anal muscle strength, measured by EMG or digital assessment. No UI outcomes. Does not address question re: effectiveness of PFMT for prevention of UI.
Authors: Weatherall M;. Title: Biofeedback or pelvic floor muscle exercises for female genuine stress incontinence: A meta-analysis of trials identified in a systematic review. Journal Name: BJU International. Year: 1999	This is a meta-analysis of one comparison identified in the Berghmans systematic review on conservative treatment of stress UI (also excluded). This comparison is covered within the Hay-Smith systematic review on PFMT.
Authors: Wells TJ;Brink CA;Diokno AC;Wolfe R;Gillis GL;. Title: Pelvic muscle exercise for stress urinary incontinence in elderly women. Journal Name: Journal of the American Geriatrics Society. Year: 1991	A comparison of PFMT and phenylpropanolamine, a drug not used nor available in the UK.
Authors: Yalcin OT;Hassa H;Ozalp S;Yildirim A;Sener T;. Title: Results of the anti-incontinence operations and Kegel exercises in patients with type II anatomic stress incontinence. Journal Name: Acta Obstetricia et Gynecologica Scandinavica. Year: 1998	Cohort study comparing PFMT with surgery (needle suspension or open colposuspension). Because no single procedure used, cannot put findings into context.
Authors: Yamanishi T;Yasuda K;Sakakibara R;Hattori T;Ito H;Murakami S;. Title: Pelvic floor electrical stimulation in the treatment of stress incontinence: an investigational study and a placebo controlled double-blind trial. Journal Name: Journal of Urology. Year: 1997	Controlled but not randomised, before and after measurement only; no longitudinal follow-up.

Bibliographic information	Reason for rejecting study
Authors: Yamanishi T;Sakakibara R;Uchiyama T;Suda S;Hattori T;Ito H;Yasuda K;. Title: Comparative study of the effects of magnetic versus electrical stimulation on inhibition of detrusor overactivity. Journal Name: Urology. Year: 2000	No longitudinal follow-up so does not address effectiveness. 19 (60%) patients had neurogenic bladders. 47% of study population were men.

Drugs

Bibliographic information	Reason for rejecting study
Authors: Abrams P;Mattiasson A;Lose GR;Robertson GL;. Title: The role of desmopressin in the treatment of adult nocturia. [Review] [15 refs]. Journal Name: BJU International. Year: 2002 Dec	Review of 2 primary studies; Lose 2003 which is included; and an identical study in men.
Authors: Abrams P;Swift S;. Title: Solifenacin is effective for the treatment of OAB dry patients: a pooled analysis. Journal Name: European Urology. Year: 2005 Sep	Studies included in the analysis already included in the guideline.
Authors: Ahlstrom K;Sandahl B;Sjoberg B;Ulmsten U;Stormby N;Lindskog M;. Title: Effect of combined treatment with phenylpropanolamine and estriol, compared with estriol treatment alone, in postmenopausal women with stress urinary incontinence. Journal Name: Gynecologic and Obstetric Investigation. Year: 1990	The study aims to establish whether adding phenylpropanolamine (PPA) to oestrogen affects outcomes, which is not a question that's relevant to the guideline because PPA is not used nor available in the UK.
Authors: Altan-Yaycioglu R;Yaycioglu O;Aydin Akova Y.;Guvel S;Ozkardes H;. Title: Ocular side-effects of tolterodine and oxybutynin, a single-blind prospective randomized trial. Journal Name: British Journal of Clinical Pharmacology. Year: 2005 May	Study investigates visual effects after 4 weeks treatment, more in relation to mechanism of ocular side effects than effectiveness of drug treatment.
Authors: Blom MW;Sommers DK;. Title: The effects of an estradiol transdermal therapeutic system, alone and in combination with naproxen, on urge incontinence in elderly women: A pilot study. Journal Name: Current Therapeutic Research Clinical and Experimental. Year: 1995	Cross-over RCT (n=16) with 3 arms (estradiol patch with or without naproxen, and placebo), but not clear of total duration of study. Lack of information about characteristics of patients other than they had ‘established detrusor instability’. Results impossible to interpret - mean values of maximum bladder capacity and volume at first urge to void reported (unclear whether this was at endpoint), but no baseline data against which to compare the results. Bladder diaries kept, ‘significant improvements’ reported but no numerical data.
Authors: Blonski J;. Title: Is tolterodine (Detrol) or oxybutynin (Ditropan) the best for treatment of urge urinary incontinence?. Journal Name: Journal of Family Practice. Year: 2001 Dec	Not the primary report of the meta-analysis (Harvey 2001).
Authors: Cardozo LD;Wise BG;Benness CJ;. Title: Vaginal oestradiol for the treatment of lower urinary tract symptoms in postmenopausal women - A double-blind placebo-controlled study. Journal Name: Journal of Obstetrics and Gynaecology.	RCT of 104 women; no useable data (no numerical data reported for any results).

Bibliographic information	Reason for rejecting study
Year: 2001	
Authors: Chaliha C;Halaska M;Stanton SL;. Title: Trospium chloride for the treatment of detrusor instability: a placebo-controlled dose-finding study. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 1998	Abstract.
Authors: Coombes GM;Millard RJ;. Title: Urinary urge incontinence: randomised crossover trials of penthienate versus placebo and propantheline. Journal Name: Medical Journal of Australia. Year: 1996 Nov 4	2 cross-over RCTs combined in 1 report; penthienate vs. placebo (n=20) and propantheline vs. penthienate (n=23).{22879} Penthienate is an antimuscarinic drug, not used in the UK.
Authors: Chapple C;Steers W;Norton P;Millard R;Kralidis G;Glavind K;Abrams P;. Title: A pooled analysis of three phase III studies to investigate the efficacy, tolerability and safety of darifenacin, a muscarinic M<inf>3</inf> selective receptor antagonist, in the treatment of overactive bladder. Journal Name: BJU International. Year: 2005	Source of original trial data not referenced.
Authors: Chapple CR;Abrams P;. Title: Comparison of darifenacin and oxybutynin in patients with overactive bladder: assessment of ambulatory urodynamics and impact on salivary flow. Journal Name: European Urology. Year: 2005 Jul	7 days treatment only; main outcome urodynamic parameters. Does not address effectiveness for UI/OAB.
Authors: Dmochowski RR;Nitti V;Staskin D;Luber K;Appell R;Davila GW;. Title: Transdermal oxybutynin in the treatment of adults with overactive bladder: combined results of two randomized clinical trials. Journal Name: World Journal of Urology. Year: 2005 Sep	Pooled analysis of 2 RCTs that are already included.
Authors: Ek A;Andersson KE;Gullberg B;Ulmsten U;. Title: Effects of oestradiol and combined norephedrin and oestradiol treatment on female stress incontinence. Journal Name: Zentralblatt fur Gynakologie. Year: 1980	The study aims to establish whether treatment with norephedrin (phenylpropanolamine) plus estradiol is better than estradiol alone in 13 women with stress UI. This is not a question that is relevant to the guideline because we are not looking at PPA, as it is neither used nor available in the UK.
Authors: Fantl JA;Cardozo L;McClish DK;. Title: Estrogen therapy in the management of urinary incontinence in postmenopausal women: a meta-analysis. First report of the Hormones and Urogenital Therapy Committee. Journal Name: Obstetrics and Gynecology. Year: 1994	Systematic review outdated by several subsequent publications. Use as source of references.
Authors: Foote J;Glavind K;Kralidis G;Wyndaele J;. Title: Treatment of overactive bladder in the older patient: Pooled analysis of three phase III studies of darifenacin, an M3 selective receptor antagonist. Journal Name: European Urology. Year: 2005	Source of original trial data not referenced.

Bibliographic information	Reason for rejecting study
Authors: Freeman R;Hill S;Millard R;Slack M;Sutherst J;Tolterodine Study Group.;. Title: Reduced perception of urgency in treatment of overactive bladder with extended-release tolterodine. Journal Name: Obstetrics and Gynecology. Year: 2003 Sep	Secondary analysis of RCT (van Kerrebroeck, ref ID: 22836; included).
Authors: Garcia JMO, Agullo EM, Sugranes JC, Cruz JFJ. Title: A comparison of trospium chloride and oxybutynin in the treatment of hyperacive bladder; a randomized double-blind study. Journal Name: Urod A. Year: 1997	72% of study population (n=67) had neurogenic bladder which is outside the guideline scope. Assessment of urodynamic findings only - no baseline symptom data, and no outcomes related to symptoms.
Authors: Gleason DM;Susset J;White C;Munoz DR;Sand PK;. Title: Evaluation of a new once-daily formulation of oxbutynin for the treatment of urinary urge incontinence. Ditropan XL Study Group. Journal Name: Urology. Year: 1999 Sep	Case series of patients transferred from immediate-release oxybutynin to a controlled-release formulation, or taking oxybutynin (CR) for the first time. No control group.
Authors: Gruneberger A;. Title: Treatment of motor urge incontinence with clenbuterol and flavoxate hydrochloride. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 1984 Mar	Comparison group is clenbuterol which is not used in the UK.
Authors: Henalla SM;Hutchins CJ;Robinson P;MacVicar J;. Title: Non-operative methods in the treatment of female genuine stress incontinence of urine. Journal Name: Journal of Obstetrics and Gynaecology. Year: 1989	Abstract publication, not subsequently published in full.
Authors: Hilton P, Tweddell AL, Mayne C. Title: Oral and intravaginal estrogens alone and in combination with alpha-adrenergic stimulation in genuine stress incontinence. Journal Name: Int Urogynaecology. Year: 1990	RCT with 6 tx arms, including 2 of oestrogen only and placebo, and another 3 arms involving phenylpropanolamine alone or in combination with oestrogen (n=10 per grp). Only data for oestrogen alone or placebo of relevance to the guideline, but numerical data for symptom outcomes not reported (only in graphs); complete urodynamic data reported. Other RCTs in the guideline included have compared oestrogen with placebo in the same population over longer periods.
Authors: Homma Y;Kawabe K;. Title: Health-related quality of life of Japanese patients with overactive bladder treated with extended-release tolterodine or immediate-release oxybutynin: a randomized, placebo-controlled trial. Journal Name: World Journal of Urology. Year: 2004 Oct	Paper reports results for the Japanese patients included in the Homma 2003 study; study excluded due to duplication of data.
Authors: Junemann KP;Halaska M;Rittstein T;Murtz G;Schnabel F;Brunjes R;Nurkiewicz W;. Title: Propiverine versus tolterodine: efficacy and tolerability in patients with overactive bladder. Journal Name: European Urology. Year: 2005 Sep	4-week study that focused on cystometric capacity, therefore does not address effectiveness.
Authors: Kinn AC;Lindskog M;. Title: Estrogens and phenylpropanolamine in combination for stress urinary incontinence in postmenopausal women. Journal Name: Urology. Year: 1988 Sep	The study aims to establish whether treatment with phenylpropanolamine plus estriol is better than estriol alone in 36 women with stress UI. This is not a question that is relevant to the guideline because we are not looking at PPA, as it is neither used nor

Bibliographic information	Reason for rejecting study
	available in the UK.
Authors: Kuo H;. Title: Efficacy of desmopressin in treatment of refractory nocturia in patients older than 65 years. Journal Name: Urology. Year: 2002	Case series of desmopressin use in 30 patients (5 women). Evidence of higher level available to address this question.
Authors: Larsson G;Hallen B;Nilvebrant L;. Title: Tolterodine in the treatment of overactive bladder: analysis of the pooled phase II efficacy and safety data. Journal Name: Urology. Year: 1999 May	Pooled analysis from 4 placebo-controlled dose-ranging RCTs that evaluated tolterodine. 2 of the studies included patients with detrusor hyperreflexia which is outside the guideline scope. Relevant studies included were considered separately.
Authors: Milani R;Scalambrino S;Carrera S;Pezzoli P;Ruffmann R;. Title: Flavoxate hydrochloride for urinary urgency after pelvic radiotherapy: comparison of 600 mg versus 1200 mg daily dosages. Journal Name: Journal of International Medical Research. Year: 1988 Jan	Case series of women treated with flavoxate for urgency after pelvic radiotherapy.
Authors: Millard RJ;Halaska M;. Title: Efficacy of solifenacin in patients with severe symptoms of overactive bladder: A pooled analysis. Journal Name: Current Medical Research and Opinion. Year: 2006	Source of data for one of the trials was 'data on file'.
Authors: Moore KH;Hay DM;Imrie AE;Watson A;Goldstein M;. Title: Oxybutynin hydrochloride (3 mg) in the treatment of women with idiopathic detrusor instability. Journal Name: British Journal of Urology. Year: 1990 Nov	Small cross-over study of oxybutynin and placebo, of short duration. Other more robust and recent studies that address the same question are included.
Authors: Radomski SB;Caley B;Reiz JL;Miceli PC;Harsanyi Z;Darke AC;. Title: Preliminary evaluation of a new controlled-release oxybutynin in urinary incontinence. Journal Name: Current Medical Research and Opinion. Year: 2004	Pilot study of immediate /controlled release oxybutynin (2wks/ 2wks washout/ 4 wks) in 12 patients who acted as their own controls. Other more robust studies included.
Authors: Riva D;Casolati E;. Title: Oxybutynin chloride in the treatment of female idiopathic bladder instability. Results from double blind treatment. Journal Name: Clinical and Experimental Obstetrics and Gynecology. Year: 1984	Small cross-over study of oxybutynin and placebo, of short duration. Other more robust and recent studies that address the same question are included.
Authors: Robinson JM;Brocklehurst JC;. Title: Emepronium bromide and flavoxate hydrochloride in the treatment of urinary incontinence associated with detrusor instability in elderly women. Journal Name: British Journal of Urology. Year: 1983 Aug	Emepronium plus flavoxate compared with placebo; emepronium not used in the UK.
Authors: Rud T;. Title: The effects of estrogens and gestagens on the urethral pressure profile in urinary continent and stress incontinent women. Journal Name: Acta Obstetricia et Gynecologica Scandinavica. Year: 1980	Does not address effectiveness; UPP and urethral length measured after 3 wks tx with estradiol or estriol, or after a single 1 gram dose of progesterone.
Authors: Salvatore S;Khullar V;Cardozo L;Milani R;Athanasiou S;Kelleher C;. Title: Long-term prospective randomized study comparing two different regimens of oxybutynin as a treatment for detrusor overactivity. Journal Name: European Journal	Comparison of 2 different starting dose regimens of oxybutynin (2.5mg bd or 5mg at night). No other control group.

Bibliographic information	Reason for rejecting study
of Obstetrics, Gynecology, and Reproductive Biology. Year:	
Authors: Sartori MGF;Baracat EC;Girao MJBC;Goncalves WJ;Sartori JP;Rodrigues dL;. Title: Menopausal genuine stress urinary incontinence treated with conjugated estrogens plus progestogens. Journal Name: International Journal of Gynecology and Obstetrics. Year: 1995	Case series.
Authors: Sherman AM;Shumaker SA;Kancler C;Zheng B;Reboussin DM;Legault C;Herrington DM;. Title: Baseline health-related quality of life in postmenopausal women with coronary heart disease: the Estrogen Replacement and Atherosclerosis (ERA) Trial. Journal Name: Journal of Women's Health. Year: 2003	Does not address effectiveness of oestrogens for UI. This report analyses baseline health-related QOL data, including UI, from a study evaluating the effects of oestrogen with or without progestogen on coronary atherosclerosis.
Authors: Stanton SL;. Title: A comparison of emepronium bromide and flavoxate hydrochloride in the treatment of urinary incontinence. Journal Name: Journal of Urology. Year: 1973	Comparison of emepronium and flavoxate. Emepronium not used in the UK.
Authors: Sussman D;Garely A;. Title: Treatment of overactive bladder with once-daily extended-release tolterodine or oxybutynin: the antimuscarinic clinical effectiveness trial (ACET).[see comment]. Journal Name: Current Medical Research and Opinion. Year: 2002	Reported to be a comparison of 2 doses each of SR tolterodine and SR oxybutynin. It was effectively 2 separate trials, with the 340 centres that were involved in the study; each evaluating only 1 of the study drugs. However results are analysed as though they were comparisons of the different drugs, with little useful information about differences between the doses of different drugs. Endpoints were patient perception of benefit and dry mouth. ITT analysis done for those randomised and received ≥ 1 dose of study medication & had 1 efficacy assessment. No explanation for missing data.
Authors: Tapp AJ;Cardozo LD;Versi E;Cooper D;. Title: The treatment of detrusor instability in post-menopausal women with oxybutynin chloride: a double blind placebo controlled study.[see comment]. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 1990 Jun	Small cross-over study of oxybutynin and placebo, of short duration. Other more robust and recent studies that address the same question are included.
Authors: Weatherall M;. Title: The risk of hyponatremia in older adults using desmopressin for nocturia: a systematic review and meta-analysis. [Review] [37 refs]. Journal Name: Neurourology and Urodynamics. Year: 2004	This review pooled the incidence of hyponatraemia in studies where desmopressin was used to treat nocturia. Seven studies were included (including the Asplund RCT and Asplund dose-titration study, and Kuo 2002 [excluded]); 3 studies included only men, and 5 included men and women. No single definition of hyponatraemia was used in the studies included, nor a definition given in the review. Studies of any duration were included (3 days to 3 months). The pooled estimate reported was 7.6% (95% CI 3.1, 15.1). However, the review had unclear methods, and conflicting information about type of studies included (said controlled only, but case series included). The appropriateness

Bibliographic information	Reason for rejecting study
	of pooling the results is questionable as the largest study included (n=224 [56%], only men) reported a much higher incidence (21.9%) than the other studies (3.3-8.7%), and also because the lack of definition of hyponatraemia and variation in study durations makes it difficult to put the pooled estimate into any context.
Authors: Wein AJ;. Title: Treatment of urge-predominant mixed urinary incontinence with tolterodine extended release: a randomized, placebo-controlled trial. Journal Name: Journal of Urology. Year: 2005 Jun	Commentary on study included in guideline (ref ID 22918, Khullar 2004).
Authors: Weisberg E;Ayton R;Darling G;Farrell E;Murkies A;O'Neill S;Kirkegard Y;Fraser IS;. Title: Endometrial and vaginal effects of low-dose estradiol delivered by vaginal ring or vaginal tablet. Journal Name: Climacteric. Year: 2005	Although % reporting urgency and frequency at 48 weeks is given, neither the change from baseline, nor the baseline prevalence of these symptoms is reported therefore there are no useable data in this study in relation to UI.
Authors: Whitehead JA;. Title: Urinary incontinence in the aged. Propantheline bromide as an adjunct to treatment. Journal Name: Geriatrics. Year: 1967 Jan	A study evaluating 2 weeks propantheline and placebo tx in 20 female cognitively impaired elderly inpatients with UI. Pts were also undergoing habit training, but no details of this given. Lack of other details makes it difficult to decipher what actually happened in the study.
Authors: Zeegers A;Kiesswetter H;Kramer A;Jonas U;. Title: Conservative therapy of frequency, urgency and urge incontinence: a double blind clinical trial of flavoxate hydrochloride, oxybutinin chloride, emepronium bromide and placebo. Journal Name: World Journal of Urology. Year: 1987	Several limitations; 60 randomised, only 41 analysed (completers) - 8 of 19 withdrawlas were due to emepronium side effects; study conducted at 2 centres and significant differences in baseline symptoms between the 2, with more in 1 having DO therefore results presented for the 2 centres separately.
Authors: Zinner N;Tuttle J;Marks L;. Title: Efficacy and tolerability of darifenacin, a muscarinic M3 selective receptor antagonist (M3 SRA), compared with oxybutynin in the treatment of patients with overactive bladder. Journal Name: World Journal of Urology. Year: 2005 Sep	2 weeks treatment only therefore insufficient duration to address effectiveness.
Authors: Zorzitto ML;Jewett MAS;Fernie GR;Holliday PJ;Bartlett S;. Title: Effectiveness of Propantheline bromide in the treatment of geriatric patients with detrusor instability. Journal Name: Neurourology and Urodynamics. Year: 1986	Majority of the population of 43 have neurogenic bladder, outside the guideline scope.
Authors: Zorzitto ML;Holliday PJ;Jewett MA;Herschorn S;Fernie GR;. Title: Oxybutynin chloride for geriatric urinary dysfunction: a double-blind placebo-controlled study.[see comment]. [Review] [28 refs]. Journal Name: Age and Ageing. Year: 1989 May	Small cross-over study of oxybutynin and placebo, of short duration. Other more robust and recent studies that address the same question are included.
Authors: Zullo MA;Plotti F;Calcagno M;Palaia I;Muzii L;Manci N;Angioli R;Panici PB;. Title: Vaginal estrogen therapy and overactive bladder symptoms in postmenopausal patients after a tension-free vaginal tape procedure: a randomized clinical trial. Journal Name: Menopause. Year: 2005 Jul	The question considered is whether oestrogen reduces the incidence of OAB as a complication of TVT surgery, and not the effectiveness of the procedure per se.

TENS

Bibliographic information	Reason for rejecting study
Authors: Nakamura M;Sakurai T;Tsujimoto Y;Tada Y;. Title: Bladder inhibition by electrical stimulation of the perianal skin. Journal Name: Urologia Internationalis. Year: 1986	Intervention not TENS.
Authors: Okada N;Igawa Y;Ogawa A;Nishizawa O;. Title: Transcutaneous electrical stimulation of thigh muscles in the treatment of detrusor overactivity. Journal Name: British Journal of Urology. Year: 1998 Apr	Majority of patients (14 of 19) had detrusor hyperreflexia which is outside the guideline scope.
Authors: Skeil D;Thorpe AC;. Title: Transcutaneous electrical nerve stimulation in the treatment of neurological patients with urinary symptoms. Journal Name: BJU International. Year: 2001 Dec	Case series of TENS in patients with neuropathic UI, which is a population excluded from the UI guideline scope.
Authors: van Balken MR;Vandoninck V;Messelink BJ;Vergunst H;Heesakkers JP;Debruyne FM;Bemelmans BL;. Title: Percutaneous tibial nerve stimulation as neuromodulative treatment of chronic pelvic pain. Journal Name: European Urology. Year: 2003 Feb	Evaluates TENS for chronic pelvic pain, not UI.

Posterior tibial nerve stimulation

Bibliographic information	Reason for rejecting study
Authors: Agro EF;Campagna A;Sciobica F;Petta F;Germani S;Zuccala A;Miano R;. Title: Posterior tibial nerve stimulation: Is the once-a-week protocol the best option?. Journal Name: Minerva Urologica e Nefrologica. Year: 2005	Duration of study unclear.
Authors: Ishigooka M, Zermann D, Doggweiler R, Schmidt RA. Title: Sacral nerve stimulation and diurnal volume. Journal Name: Eur Urol. Year: 1999	Patterns of changes in symptoms reported (inc or decrease) but no numerical data given. No adverse effects data

Non-therapeutic interventions

Bibliographic information	Reason for rejecting study
Authors: Brubaker L, Harris T, Gleason D, Newman D, North B et al. Title: The external urethral barrier for stress incontinence: a multicenter trial of safety and efficacy. Journal Name: Obstetrics & Gynecology. Year: 1999	Device evaluated (miniguard) not relevant as withdrawn from the market for commercial reasons
Authors: Abu-Sitta MI;Kapur G;Enhorning G;. Title: Stress incontinence alleviated by an intravaginal device. Journal Name: International Urogynecology Journal.	Device evaluated (contiring) not known to be available

Bibliographic information	Reason for rejecting study
Year: 1995	
Authors: Bellin P;Smith J;Poll W;Bogojavlensky S;Knoll D;Childs S;Tuttle J;Barada J;Dann J;. Title: Results of a multicenter trial of the CapSure (Re/Stor) continence shield on women with stress urinary incontinence. Journal Name: Urology. Year: 1998	Device evaluated (CapSure) not relevant as withdrawn from the market for commercial reasons
Authors: Benvenuti F;Banfi R;D'Ippolito P;Cottenden A;Mencarelli MA;Di Benedetto P;. Title: Criteria for prescribing aids for the management of urinary incontinence. Journal Name: Europa Medicophysica. Year: 2003	Commentary on containment products available, and their performance. Does not address guideline questions.
Authors: Bernier F;Harris L;. Title: Treating stress incontinence with the bladder neck support prosthesis. Journal Name: Urologic Nursing. Year: 1995 Mar	Device evaluated (believed to be Introl) not relevant as withdrawn from the market for commercial reasons.
Authors: Dunn M;Brandt D;Nygaard I;. Title: Treatment of exercise incontinence with a urethral insert: a pilot study in women. Journal Name: Physician and Sportsmedicine. Year: 2002	Study of 6 women who used femsoft. A larger, longer-term case series evaluating this device has been included.
Authors: Dunn S;Kowanko I;Paterson J;Pretty L;. Title: Systematic review of the effectiveness of urinary continence products. Journal Name: Journal of WOCN. Year: 2002	Systematic review of effectiveness of continence products. Does not address the UI guideline questions. Covers which type of product is preferred, and their performance in terms of acceptability, comfort, keeping dry, skin reactions.
Authors: Eckford SD;Jackson SR;Lewis PA;Abrams P;. Title: The continence control pad - A new external urethral occlusion device in the management of stress incontinence. Journal Name: British Journal of Urology. Year: 1996	Device evaluated (Miniguard) not relevant as withdrawn from the market for commercial reasons.
Authors: Kohler-Ockmore J;Feneley RC;. Title: Long-term catheterization of the bladder: prevalence and morbidity. Journal Name: British Journal of Urology. Year: 1996 Mar	Survey of prevalence of, and complications associated with, catheter use in the community. Does not address guideline questions.
Authors: Miller JL;Bavendam T;. Title: Treatment with the reliance(TM) urinary control insert: One-year experience. Journal Name: Journal of Endourology. Year: 1996	Device evaluated (reliance) not relevant as withdrawn from the market for commercial reasons.
Authors: Niel-Weise BS;van den Broek PJ;. Title: Urinary catheter policies for short-term bladder drainage in adults. Journal Name: Cochrane Database of Systematic Reviews. Year: 2006	Not relevant to this guideline because we are looking at long- not short-term catheterisation.
Authors: Nielsen KK;Kromann-Andersen B;Jacobsen H;Nielsen EM;Nordling J;Holm HH;Larsen JF;. Title: The urethral plug: A new treatment modality for genuine urinary stress incontinence in women. Journal Name: Journal of Urology. Year:	Urethral plugs not used in UK practice.

Bibliographic information	Reason for rejecting study
1990	
Authors: Nielsen KK;Walter S;Maegaard E;Kromann-Andersen B;. Title: The urethral plug II: An alternative treatment in women with genuine urinary stress incontinence. Journal Name: British Journal of Urology. Year: 1993	Urethral plugs not used in the UK.
Authors: North BB;. Title: A disposable adhesive patch for stress urinary incontinence. Journal Name: Family Medicine. Year: 1998 Apr	Device evaluated (believed to be Miniguard) not relevant as withdrawn from the market for commercial reasons.
Authors: Robinson H;Schulz J;Flood C;Hansen L;. Title: A randomized controlled trial of the NEAT expandable tip continence device. Journal Name: International Urogynecology Journal. Year: 2003 Aug	Devices evaluated (NEAT and Reliance) not relevant as withdrawn from the market for commercial reasons.
Authors: Sand PK;Staskin D;Miller J;Diokno A;Sant GR;Davila GW;Knapp P;Rappaport S;Tutrone R;. Title: Effect of a urinary control insert on quality of life in incontinent women. Journal Name: International Urogynecology Journal. Year: 1999	Device evaluated (Reliance) not relevant as withdrawn from the market for commercial reasons.
Authors: Tincello GD, Adams EJ, Bolderson J, Richmond DH. Title: A urinary control device for management of female stress incontinence. Journal Name: Obstet Gynecol. Year: 2000	Device evaluated (FemAssist) not relevant as withdrawn from the market for commercial reasons.
Authors: Versi E;Griffiths DJ;Harvey M;. Title: A new external urethral occlusive device for female urinary incontinence. Journal Name: Obstetrics and Gynecology. Year: 1998	Device evaluated (FemAssist) not relevant as withdrawn from the market for commercial reasons.
Authors: Warren JW;Damron D;Tenney JH;Hoopes JM;Deforge B;Muncie HL;. Title: Fever, bacteremia, and death as complications of bacteriuria in women with long-term urethral catheters. Journal Name: Journal of Infectious Diseases. Year: 1987 Jun	A study of fever and bacteruria associated with long-term catheter use. Does not address guideline questions.

Complementary therapies

Bibliographic information	Reason for rejecting study
Authors: Kubista E;Altmann P;Kucera H;Rudelstorfer B;. Title: Electro-acupuncture's influence on the closure mechanism of the female urethra in incontinence. Journal Name: American Journal of Chinese Medicine. Year: 1976	Aim of study was to validate urethral closure pressure assessment as a way of objectively evaluating the effects of acupuncture. Does not address effectiveness.

Surgical management

Sacral nerve stimulation

Bibliographic information	Reason for rejecting study
Authors: Abrams P;Blaivas JG;Fowler CJ;Fourcroy JL;MacDiarmid SA;Siegel SW;Van KP;. Title: The role of neuromodulation in the management of urinary urge incontinence.[see comment]. Journal Name: BJU International. Year: 2003 Mar	Narrative review, used as source/ check of references
Authors: Cappellano F, Ciotti MG, Pizzoccaro M, Catanzaro M, et al. Title: Sacral root neuromodulation in the treatment of female urge and mixed urinary incontinence. Journal Name: Urogynaecologia International Journal. Year: 1998	Most information in publications relates to results of peripheral nerve evaluation, not from insertion of the implant. 10 of 47 patients had a permanent implant, but gender not stated, and results presented in graphs only with little explanatory narrative.
Authors: Hijaz A;Vasavada S;. Title: Complications and troubleshooting of sacral neuromodulation therapy. Journal Name: Urologic Clinics of North America. Year: 2005	Narrative review of complications from sacral neuromodulation (data from Sacral Nerve Stimulation Group), and the authors experience of complications from 167 patients. No pt demographics reported and insufficient description of indications for the intervention, therefore cannot use the study.
Authors: Scheepens WA, van Koeveringe GA, de Bie RA, Weil EHJ, van Kerrebroeck. Title: Urodynamic results of sacral neuromodulation correlate with subjective improvement in patients with an overactive bladder. Journal Name: European Urology. Year: 2003	Main objective of study was to investigate whether ambulatory urodynamic findings correlate with subjective outcomes in men and women who had sacral nerve stimulator implanted. Gender of all patient who underwent PNE stated, but not of those who had implant.
Authors: Van Voskuilen AC;Oerlemans DJAJ;Weil EHJ;de Bie RA;Van KP;. Title: Long term results of neuromodulation by sacral nerve stimulation for lower urinary tract symptoms: a retrospective single center study. Journal Name: European Urology. Year: 2006	Authors compare results (complications) with different devices; some of the earlier devices are not in use now therefore findings of historical interest only.

Augmentation cystoplasty

Bibliographic information	Reason for rejecting study
Authors: Kayigil O;Atahan O;Metin A;. Title: Experiences with clam ileocystoplasty. Journal Name: International Urology and Nephrology. Year: 1998	Very limited information: series of 18 pts (4 women) who had clam ileocystoplasty for urge UI refractory to conservative tx (not described). The 4 women cured at follow-up 18 months, no definitions & no further outcomes.

Urinary diversion

Bibliographic information	Reason for rejecting study
Authors: Ahlering TE;Weinberg AC;Razor B;. Title: Modified Indiana pouch. Journal Name: Journal of Urology. Year: 1991	Indications for diversion were cancer not urinary incontinence
Authors: Arai Y;Okubo K;Konami T;Kin S;Kanba T;Okabe T;Hamaguchi A;Okada Y;. Title: Voiding function of orthotopic ileal neobladder in women. Journal Name: Urology. Year: 1999	Indication for urinary diversion was cancer, no UI
Authors: Bastian PJ;Albers P;Hanitzsch H;Fabrizi G;Casadei R;Haferkamp A;Schumacher S;Muller SC;. Title: Health-related quality-of-life following modified ureterosigmoidostomy (Mainz Pouch II) as continent urinary diversion. Journal Name: European Urology. Year: 2004	Indications for urinary diversion carcinoma, not UI. This information not clear from the abstract.
Authors: Nabi G;Dublin N;McClinton S;N'Dow JMO;Neal DE;Pickard R;Yong SM;. Title: Urinary diversion and bladder reconstruction/replacement using intestinal segments for intractable incontinence or following cystectomy. Journal Name: Cochrane database of systematic reviews. Year: 2005	Population not relevant to guideline scope - the systematic review included 2 RCTs which included pts (predominantly men) with bladder cancer.
Authors: Navon JD;Weinberg AC;Ahlering TE;. Title: Continent urinary diversion using a modified Indiana pouch in elderly patients. Journal Name: American Surgeon. Year: 1994	Study included 25 patients (6 women). The indication for the urinary diversion was not UI.
Authors: Nordstrom G;Nyman CR;Theorell T;. Title: Psychosocial adjustment and general state of health in patients with ileal conduit urinary diversion. Journal Name: Scandinavian Journal of Urology and Nephrology. Year: 1992	Most of the patients included had urinary diversion for bladder cancer
Authors: Nordstrom GM;Nyman CR;Theorell T;. Title: The impact on work ability of ileal conduit urinary diversion. Journal Name: Scandinavian Journal of Social Medicine. Year: 1990	Of 66 men and women (39% women) included in the series, the indication for diversion was cancer in 66%; in others, of whom the % of women with UI is not possible to decipher, the indications were UI and/or 'bladder dysfunction of varying aetiologies'
Authors: Nordstrom GM;Nyman CR;. Title: Male and female sexual function and activity following ileal conduit urinary diversion. Journal Name: British Journal of Urology. Year: 1992	Of 66 men and women (39% women) included in the series, the indication for diversion was cancer in 66%; in others, of whom the % of women with UI is not possible to decipher, the indications were UI and/or 'bladder dysfunction of varying aetiologies'
Authors: Crivellaro S;Michaels MJ;Kocjancic E;Libertino JA;. Title: The Lahey clinic experience with continent urinary diversion. Journal Name: BJU International. Year: 2004	Only 1 of 238 had urinary diversion due to UI; most of the population included had bladder cancer
Authors: Lockhart JL;Pow-Sang JM;Persky L;Kahn P;Helal M;Sanford E;. Title: A continent colonic urinary reservoir: the Florida pouch. Journal Name: Journal of Urology. Year: 1990 Oct	Series of 65 patients (46 men). In the majority the indication for diversion was cancer or neurogenic disease. Not possible to extract data for women with UI.

Bibliographic information	Reason for rejecting study
Authors: Lockhart JL;Pow-Sang JM;Persky L;Sanford E;Helal M;. Title: Results, complications and surgical indications of the Florida pouch. Journal Name: Surgery, Gynecology and Obstetrics. Year: 1991 Oct	Series of 107 pts (73 men) having diversion for a range of indications, mostly cancer. Not possible to extract data for women with intractable incontinence.
Authors: Millard RJ;Wang Y;. Title: Early clinical experience with continent urinary diversion. Journal Name: Australian and New Zealand Journal of Surgery. Year: 1996 Dec	Series of 29 men and women; indication for most was cancer. Not possible to extract data for women with intractable UI, or to determine whether they were women.
Authors: Skolarikos A;Deliveliotis C;Alargof E;Ferakis N;Protogerou V;Dimopoulos C;. Title: Modified ileal neobladder for continent urinary diversion: Functional results after 9 years of experience. Journal Name: Journal of Urology. Year: 2004	Reason for diversion: transitional cell carcinoma in all patients - not relevant to guideline. [indication for op not given in abstract]
Authors: Wilson TG;Moreno JG;Weinberg A;Ahlering TE;Studer UE;. Title: Late complications of the modified Indiana pouch. Journal Name: Journal of Urology. Year: 1994	Indications for urinary diversion were all cancer - not evident from the abstract

Detrusor myectomy - none

Botulinum toxin

Bibliographic information	Reason for rejecting study
Authors: Harper M;Popat RB;DasGupta R;Fowler CJ;Dasgupta P;. Title: A minimally invasive technique for outpatient local anaesthetic administration of intradetrusor botulinum toxin in intractable detrusor overactivity. Journal Name: BJU International. Year: 2003	Purpose of study was to describe botulinum toxin administration under LA as an outpatient procedure in a series of 39 pts (26 F) with IDO or neurogenic DO. No clinical outcomes reported (all pts said to had 'marked improvement') - only numerical data for mean max cystometric capacity, but unclear at what time point.
Authors: Kessler TM;Danuser H;Schumacher M;Studer UE;Burkhard FC;. Title: Botulinum A toxin injections into the detrusor: An effective treatment in idiopathic and neurogenic detrusor overactivity?. Journal Name: Neurourology and Urodynamics. Year: 2005	Study compares outcomes of botulinum-A toxin in idiopathic vs neurogenic DO. 22 pts included (14 women); the proportion of women with idiopathic DO not stated & data not reported separately for this group of pts.
Authors: Kuo HC;. Title: Urodynamic evidence of effectiveness of botulinum A toxin injection in treatment of detrusor overactivity refractory to anticholinergic agents. Journal Name: Urology. Year: 2004 May	Of 30 patients in the series, 18 were men & 12 overall had neurogenic bladder. Only limited results given for idiopathic DO subgroup, therefore study not considered further.
Authors: Smith CP;Nishiguchi J;O'Leary M;Yoshimura N;Chancellor MB;. Title: Single-institution experience in 110 patients with botulinum toxin a injection into bladder or urethra. Journal Name: Urology. Year: 2005	Report includes 110 patients (75 women) treated with botulinum toxin; 74 patients had neurogenic bladder, 19 interstital cystitis or idiopathic retention/pelvic floor spasticity, leaving 17 with idiopathic OAB. Results not reported separately for OAB pts therefore

Bibliographic information	Reason for rejecting study
	study not helpful.
Authors: Schurch B, de Seze M, Denys P et al. Title: Botulimum toxin type A is a safe and effective treatment for neurogenic urinary incontinence: results of a single treatment, randomized, placebo controlled 6-month study. Journal Name: J Urol. Year: 2005	Only patients with neurogenic DO included in the study.

Vanilloid receptor agonists (resiniferatoxin and capsaicin)

Bibliographic information	Reason for rejecting study
Authors: Cerruto MA;Ficarra V;D'Amico A;Balzarro M;Artibani W;. Title: Is resiniferatoxin better than capsaicin? Literature review. Journal Name: Urodinamica. Year: 2003	Narrative review that describes rationale for using resiniferotoxin and capsaicin, & summarises clinical studies, none of which conducted in patients within the scope of the UI guideline.
Authors: Chandiramani VA;Peterson T;Duthie GS;Fowler CJ;. Title: Urodynamic changes during therapeutic intravesical instillations of capsaicin. Journal Name: British Journal of Urology. Year: 1996	Only 4/30 patients had non-neurogenic incontinence, not known whether these pts were male or female (19/30 were female).
Authors: Cruz F;Guimaraes M;Silva C;Rio ME;Coimbra A;Reis M;. Title: Desensitization of bladder sensory fibers by intravesical capsaicin has long lasting clinical and urodynamic effects in patients with hyperactive or hypersensitive bladder dysfunction. Journal Name: Journal of Urology. Year: 1997	Series of 16 pts who had capsaicin - 9 females of whom 3 had idiopathic DO. Some individual patient data reported but limited demographic data e.g. prior treatment not stated & limited information on baseline symptoms of relevance.
Authors: Kuo HC;. Title: Multiple intravesical instillation of low-dose resiniferatoxin is effective in the treatment of detrusor overactivity refractory to anticholinergics. Journal Name: BJU International. Year: 2005 May	Gender of population not stated - was referred to throughout as 'patients'; however, one outcome measure was the International Prostate Symptom Score, and 20/53 pts were stated to have BOO from BPH, both factors suggest that the population was male.

Intramural bulking agents

Bibliographic information	Reason for rejecting study
Authors: Echols KT;Chesson RR;Breaux EF;Shobeiri SA;. Title: Persistence of delayed hypersensitivity following transurethral collagen injection for recurrent urinary stress incontinence. Journal Name: International Urogynecology Journal. Year: 2002	Case report

Bibliographic information	Reason for rejecting study
Authors: Eckford SD;Abrams P;. Title: Para-urethral collagen implantation for female stress incontinence. Journal Name: British Journal of Urology. Year: 1991	Case series of 25 pts with 3 months follow-up; larger series followed up for longer included
Authors: Faerber GJ;. Title: Endoscopic collagen injection therapy in elderly women with type I stress urinary incontinence. Journal Name: Journal of Urology. Year: 1996	Case series of 12 pts; larger series followed up for longer included
Authors: Kieswetter H;Fischer M;Wober L;Flamm J;. Title: Endoscopic implantation of collagen (GAX) for the treatment of urinary incontinence. Journal Name: British Journal of Urology. Year: 1992	Case series of 16 pts; larger series followed up for longer included
Authors: Mantovani F;Del NA;Confalonieri S;Pisani E;. Title: Collagen for U.I. minimal dose injections in scheduled steps to improve clinical results. Journal Name: Urogynaecologia International Journal. Year: 2002	Series of 24 pts who had collagen injection for UI. No baseline demographic data and no definitions for outcomes ('effectiveness').
Authors: Moore KN;Chetner MP;Metcalfe JB;Griffiths DJ;. Title: Periurethral implantation of glutaraldehyde cross-linked collagen (contigen(TM)) in women with type I or III stress incontinence: Quantitative outcome measures. Journal Name: British Journal of Urology. Year: 1995	Case series of 12 pts; larger series followed up for longer included - only 8 weeks follow-up
Authors: Pisani E;Mantovani F;Zanetti G;Ceresoli A;Seveso M;. Title: Mininvasive treatment with collagen of female urinary incontinence. Journal Name: Urogynaecologia International Journal. Year: 1995	Small series of 8 women who underwent collagen injections. Limited information on previous treatments; cure and improvement at 1 year reported but without definitions.
Authors: O'Connell HE;McGuire EJ;Aboseif S;Usui A;. Title: Transurethral collagen therapy in women. Journal Name: Journal of Urology. Year: 1995	Case series of 44 pts with 3 months follow-up; larger series followed up for longer included
Authors: Lim KB;Ball AJ;Feneley RCL;. Title: Periurethral teflon injection: A simple treatment for urinary incontinence. Journal Name: British Journal of Urology. Year: 1983	Type of UI that women had not stated.
Authors: Lopez AE;Padron OF;Patsias G;Politano VA;. Title: Transurethral polytetrafluoroethylene injection in female patients with urinary continence. Journal Name: Journal of Urology. Year: 1993	Retrospective review of women given teflon injections from 1964 to 1991. Different equipment used & experience level of users varied over this time period, as stated by authors. 58% had stress UI, others had UI of various aetiologies.
Authors: Politano VA;. Title: Periurethral polytetrafluoroethylene injection for urinary incontinence. Journal Name: Journal of Urology. Year: 1982	Series of 165 patients, 54 female, of whom 13 had stress UI. Results for population of interest not reported separately, and duration of follow-up not stated.

Artificial urinary sphincter

Bibliographic information	Reason for rejecting study
Authors: Bosch JL;Klijn AJ;Schroder FH;Hop WC;. Title: The artificial urinary sphincter in 86 patients with intrinsic sphincter deficiency: satisfactory actuarial adequate function rates. Journal Name: European Urology. Year: 2000 Aug	Series of AUS insertions in 86 M/F (15 F). Unable to sort population by aetiology and gender, but most outside guideline scope (65% prostatectomy, 10% extrophy/ epispadias, 20% neurogenic bladder, 5% 'other').
Authors: Diokno AC;Sonda LP;MacGregor RJ;. Title: Long-term followup of the artificial urinary sphincter. Journal Name: Journal of Urology. Year: 1984 Jun	Population (30) had post-prostatectomy UI, neurogenic UI or pelvic trauma - none relevant to UI guideline scope.
Authors: Duncan HJ;McInerney PD;Mundy AR;. Title: Late erosion. A new complication of artificial urinary sphincters. Journal Name: British Journal of Urology. Year: 1993 Nov	Description of complications in 4 pts who had AUS inserted, 2 women both with neurogenic bladder.
Authors: Elliott DS;Barrett DM;. Title: The artificial urinary sphincter in the female: Indications for use, surgical approach and results. Journal Name: International Urogynecology Journal. Year: 1998	Narrative review with authors own experience reported loosely (n=400, 12 women, none of the women had idiopathic UI).
Authors: Elliott DS;Barrett DM;. Title: Mayo clinic long-term analysis of the functional durability of the AMS 800 artificial urinary sphincter: A review of 323 cases. Journal Name: Journal of Urology. Year: 1998	M/F included in series - 10 F. Only reoperation rate reported separately for women. Aetiology/ indication for AUS in women not stated.
Authors: Fishman IJ;Shabsigh R;Scott FB;. Title: Experience with the artificial urinary sphincter model AS800 in 148 patients. Journal Name: Journal of Urology. Year: 1989	Series of 148 pts, including 36 women. From table of aetiologies not possible to tell the gender of the 8 pts with stress UI.
Authors: Frank I;Elliott DS;Barrett DM;. Title: Success of de novo reimplantation of the artificial genitourinary sphincter. Journal Name: Journal of Urology. Year: 2000	Population: men only.
Authors: Furlow WL;. Title: Implantation of a new semiautomatic artificial genitourinary sphincter: Experience with primary activation and deactivation in 47 patients. Journal Name: Journal of Urology. Year: 1981	6 of 47 pts were female, 4 had stress UI. No results reported separately for these 4.
Authors: Goldwasser B;Furlow WL;Barrett DM;. Title: The model AS 800 artificial urinary sphincter: Mayo Clinic experience. Journal Name: Journal of Urology. Year: 1987	Of 109 pts in the series, 9 were women. Most pts had post-prostatectomy UI or neurogenic UI. No data for women with non-neurogenic UI.
Authors: Keane PF;Walsh IK;Kernohan RM;. Title: The artificial urinary sphincter. A new solution for incontinent patients. Journal Name: Ulster Medical Journal. Year: 1993 Oct	Series of 12 pts who had a artificial urinary sphincter inserted. Population outside guideline scope (6 post prostatectomy UI, 2 other pathologies, 3 neurogenic UI).

Bibliographic information	Reason for rejecting study
Authors: Kil PJ;De Vries JD;van Kerrebroeck PE;Zwiers W;Debruyne FM;. Title: Factors determining the outcome following implantation of the AMS 800 artificial urinary sphincter. Journal Name: British Journal of Urology. Year: 1989 Dec	Of 17 patients included, 6 were female, only 2 with non-neurogenic UI.
Authors: Kowalczyk JJ;Spicer DL;Mulcahy JJ;. Title: Erosion rate of the double cuff AMS800 artificial urinary sphincter: Long-term followup. Journal Name: Journal of Urology. Year: 1996	All patients were male (not evident from abstract).
Authors: Kowalczyk JJ;Spicer DL;Mulcahy JJ;. Title: Long-term experience with the double-cuff AMS 800 artificial urinary sphincter. Journal Name: Urology. Year: 1996	Only men included in study (population not clear from abstract).
Authors: Lindner A;Kaufman JJ;Raz S;. Title: Further experience with the artificial urinary sphincter. Journal Name: Journal of Urology. Year: 1983	Of 78 pts in the series, only 2 were female, and neither had non-neurogenic UI
Authors: Maillet F;Buzelin J;Bouchot O;Karam G;. Title: Management of artificial urinary sphincter dysfunction. Journal Name: European Urology. Year: 2004	Series of 288 men and women (130 women) with variety of indications for AUS (28% neurological, 45% stress UI, 25% prostate surgery, 2% 'others'). Outcomes considered - revisions or replacements. Data not reported separately for each pt group.
Authors: Montague DK;. Title: The artificial urinary sphincter (AS 800): Experience in 166 consecutive patients. Journal Name: Journal of Urology. Year: 1992	Of series of 166 pts (10 females; 6 with stress UI). No data reported separately for women with stress UI.
Authors: Parulkar BG;Barrett DM;. Title: Application of the AS-800 artificial sphincter for intractable urinary incontinence in females. Journal Name: Surgery, Gynecology and Obstetrics. Year: 1990	Only 2 of the 24 females included in the series had non-neurogenic UI
Authors: Schettini M;Diana M;Gallucci M;. Title: Treatment of urinary incontinence with AMS 800 artificial urinary sphincter. Journal Name: International Surgery. Year: 1998 Jul	Series of 52 M/F (3F) with UI; postprostatectomy in men; in women 1 fistula, 1 neobladder, 1 congenital stricture of bladder neck.
Authors: Scott FB;. Title: The use of the artificial sphincter in the treatment of urinary incontinence in the female patient. Journal Name: Urologic Clinics of North America. Year: 1985 May	Narrative review, background information & check of references. Author also states own experience of sphincter insertion loosely - no useable data.
Authors: Ngninkeu BN;Van HG;Di GM;Debie B;Evans A;. Title: Laparoscopic artificial urinary sphincter in women for type III incontinence: Preliminary results. Journal Name: European Urology. Year: 2005	Series of 4 women who had a artificial urinary sphincter inserted laparoscopically. Larger case series of this device in women considered therefore this study excluded.
Authors: Nordling J;Holm-Bentzen M;Hald T;. Title: The AMS artificial urinary sphincter on the bulbous urethra. Journal Name: Scandinavian Journal of Urology and Nephrology. Year: 1986	Only men included in series; not evident from abstract

Bibliographic information	Reason for rejecting study
Authors: Nurse DE;Mundy AR;. Title: One hundred artificial sphincters. Journal Name: British Journal of Urology. Year: 1988	Of 100 pts (36 women; 10 had non-neuropathic UI). No useable outcome data regardless of UI aetiology.
Authors: ter Meulen PH;Zambon V;Kessels AG;van Kerrebroeck PE;. Title: Quality of life, functional outcome and durability of the AMS 800 artificial urinary sphincter in patients with intrinsic sphincter deficiency. Journal Name: Urologia Internationalis. Year: 2003	Series of 31 M/F (7 F) who had AUS inserted. Indication for device in 3 women was unsuccesfful surgery, otherwise population outside guideline scope. No data reported separately for the population of relevance.
Authors: Thomas K;Venn SN;Mundy AR;. Title: Outcome of the artificial urinary sphincter in female patients. Journal Name: Journal of Urology. Year: 2002	Minority of population relevant to our guideline (26% had stress UI, 50% neuropathic bladder, 24% other indications). Outcomes reported for stress UI population were % with device in situ/ replaced.

Colposuspension

Bibliographic information	Reason for rejecting study
Authors: Ankardal M;Ekerydh A;Crafoord K;Milsom I;Stjerndahl JH;Engh ME;. Title: A randomised trial comparing open Burch colposuspension using sutures with laparoscopic colposuspension using mesh and staples in women with stress urinary incontinence. Journal Name: BJOG: an International Journal of Obstetrics and Gynaecology. Year: 2004 Sep	All patients included in another publication by same author (Ankardal 2005), which is included.
Authors: Bulent TM;Sendag F;Dilek U;Guner H;. Title: Laparoscopic burch colposuspension: comparison of effectiveness of extraperitoneal and transperitoneal techniques. Journal Name: European Journal of Obstetrics, Gynecology, and Reproductive Biology. Year: 2004 Sep 10	Non-randomised comparison of 2 techniques of laparosopic colposuspension (transperitoneal using sutures vs. extraperitoneal using mesh and tacks). Evidence of higher level for this comparison found.
Authors: Chung MK;Chung RP;. Title: Comparison of laparoscopic Burch and tension-free vaginal tape in treating stress urinary incontinence in obese patients. Journal Name: Journal of the Society of Laparoendoscopic Surgeons. Year: 2002 Jan	Study is a retrospective review of cases who had open colposuspension or TVT, with results compared in terms of BMI; however, groups were very different at baseline with 66% of the open colpo group being of 'normal' weight, and 66% in the TVT group being obese.
Authors: Demirci F;Yucel O;. Title: Comparison of pubovaginal sling and burch colposuspension procedures in type I/II genuine stress incontinence. Journal Name: Archives of Gynecology and Obstetrics. Year: 2001	Quasi-randomisation (procedures done ‘consecutively’) although baseline characteristics similar in both groups. No results presented for all pts included; no continence outcomes. Peri- and post-op complications reported for the 63% (of n=45) who did not have concurrent hysterectomy, and complications at 1-yr for 74%, with no explanation of withdrawals or losses to follow-up.

Bibliographic information	Reason for rejecting study
Authors: Dietz HP;Wilson PD;. Title: Long-term success after open and laparoscopic colposuspension: A case-control study. Journal Name: Gynaecological Endoscopy. Year: 2002	Evidence of a higher level (RCTs) considered for this comparison.
Authors: El-Toukhy TA;Davies AE;. Title: The efficacy of laparoscopic mesh colposuspension: Results of a prospective controlled study. Journal Name: BJU International. Year: 2001	Prospective cohort study of laparoscopic vs. open Burch colposuspension. We considered RCT evidence for this comparison.
Authors: Fowler Jr JE;. Title: Experience with suprapubic vesicourethral suspension and endoscopic suspension of the vesical neck for stress urinary incontinence in females. Journal Name: Surgery, Gynecology and Obstetrics. Year: 1986	Cohort study comparing open and laparoscopic suspension. Higher level evidence considered for this comparison.
Authors: Hegarty PK;Power PC;O'Brien MF;Bredin HC;. Title: Longevity of the Marshall-Marchetti-Krantz procedure. Journal Name: Annales Chirurgiae et Gynaecologiae. Year: 2001	Although case series has follow-up of ~8 yrs, no data on complications provided which is why case series/ cohort studies were included in the UI guideline.
Authors: Hodzic D;Njavro B;Navratil R;Ralis R;. Title: Comparison of tension-free vaginal tape and Burch colposuspension for surgical treatment of female stress urinary incontinence. Journal Name: Acta Clinica Croatica. Year: 2003	Non-randomised comparison of TVT and Burch colposuspension in 36 women, with 1 yr follow-up. RCT data for this comparison available and as the study does not report complications, excluded.
Authors: Huang WC;Yang JM;. Title: Anatomic comparison between laparoscopic and open Burch colposuspension for primary stress urinary incontinence. Journal Name: Urology. Year: 2004 Apr	Review of 157 cases who underwent laparoscopic vs. open Burch colposuspension, with 1-yr follow-up. We considered RCT evidence for this comparison.
Authors: Jongen VH;Brouwer WK;. Title: Comparison of the modified Pereyra procedure using permanent suture material and Burch urethropexy. Journal Name: European Journal of Obstetrics, Gynecology, and Reproductive Biology. Year: 1999 May	Cohort comparing Pereyra and Burch; only data on cure or failure; and immediate post-operative complications. No longer-term data on complications therefore excluded.
Authors: Kulseng-Hanssen S;Berild GH;. Title: Subjective and objective incontinence 5 to 10 years after Burch colposuspension.[see comment]. Journal Name: Neurourology and Urodynamics. Year: 2002	Study has up to 10 yrs follow-up but no safety data presented
Authors: Lavin JM;Lewis CJ;Foote AJ;Hosker GL;Smith ARB;. Title: Laparoscopic Burch colposuspension: A minimum of 2 years' follow up and comparison with open colposuspension. Journal Name: Gynaecological Endoscopy. Year: 1998	Retrospective review of 1st 139 cases of laparoscopic colposuspension at 1 centre compared with most recent 52 cases of open Burch; 2 yrs follow-up. RCTs considered for the comparison.
Authors: Lyons TL;Winer WK;. Title: Clinical outcomes with laparoscopic approaches and open Burch procedures for urinary stress incontinence. Journal Name: Journal of the American Association of Gynecologic Laparoscopists. Year: 1995	Non-randomised comparison of open Burch, laparoscopic colposuspension with sutures or with suture and staples, with 1-year follow-up (n=30). Higher evidence level for this comparison considered.

Bibliographic information	Reason for rejecting study
Authors: Marinkovic S;Mian H;Evankovich M;Poplawsky D;Novi J;Frey C;Yap W;. Title: Analysis of early outcome: Burch procedure versus pubovaginal sling. Journal Name: International Urogynecology Journal. Year: 1998	Non-randomised comparison of Burch and pubovaginal sling in women with type 3 SUI. There were major differences in baseline characteristics of patients in both groups.
Authors: McDougall EM;Klutke CG;Cornell T;. Title: Comparison of transvaginal versus laparoscopic bladder neck suspension for stress urinary incontinence. Journal Name: Urology. Year: 1995	Retrospective comparison of Raz vs. 1 of 3 laparoscopic procedures (MMK, Burch, Richardson) in 42 pts with 1 yr follow-up. Higher level of evidence considered.
Authors: McDougall EM;Heidorn CA;Portis AJ;Klutke CG;. Title: Laparoscopic bladder neck suspension fails the test of time. Journal Name: Journal of Urology. Year: 1999	Cohort of lap colpo vs. transvaginal colpo in 100 pts with ~4 yrs follow-up. Follow-up not long enough to meet empirical inclusion criteria for case series or cohort studies of suspension procedures.
Authors: McLennan MT;Bent AE;. Title: Fascia lata suburethral sling vs. Burch retropubic urethropexy. A comparison of morbidity. Journal Name: Journal of Reproductive Medicine. Year: 1998 Jun	Cohort study only reporting peri-, immediate post-op and delayed post-op complications with fascia lata sling vs. Burch colposuspension. Mean follow-up only 12-13 months.
Authors: Miannay E;Cosson M;Lanvin D;Querleu D;Crepin G;. Title: Comparison of open retropubic and laparoscopic colposuspension for treatment of stress urinary incontinence. Journal Name: European Journal of Obstetrics, Gynecology, and Reproductive Biology. Year: 1998	Case-control study comparing laparoscopic vs. open Burch colposuspension. Higher level evidence (RCTs) of this comparison included.
Authors: Milani R;Scalambrino S;Quadri G;. Title: Marshall-Marchetti-Krantz procedure and Burch colposuspension in the surgical treatment of female urinary incontinence. Journal Name: British Journal of Obstetrics and Gynaecology. Year: 1985	Retrospective review of Burch and MMK procedures in a single centre. Higher level of evidence considered for this comparison.
Authors: Penttinen J;Kaar K;Kauppila A;. Title: Colposuspension and transvaginal bladder neck suspension in the treatment of stress incontinence. Journal Name: Gynecologic and Obstetric Investigation. Year: 1989	Non-randomised comparison of Burch and Raz in 48 patients with follow-up of about 1 year. We already have RCTs with longer follow-up for this comparison.
Authors: Polascik TJ;Moore RG;Rosenberg MT;Kavoussi LR;. Title: Comparison of laparoscopic and open retropubic urethropexy for treatment of stress urinary incontinence. Journal Name: Urology. Year: 1995	Non-randomised comparison of laparoscopic and open Burch colposuspension in 17 pts; unclear whether patients 'matched'. We have RCTs of this comparison so studies of lower evidence level not considered.
Authors: Pow-Sang JM;Lockhart JL;Suarez A;. Title: Female urinary incontinence: Preoperative selection, surgical complications and results. Journal Name: Journal of Urology. Year: 1986	Comparison of outcomes of Burch, Stamey, Pereyra from 1 centre. Duration of follow-up different in each group. Higher level evidence considered for comparison of effectiveness of these procedures.
Authors: Saidi MH;Gallagher S;Skop IP;Saidi JA;Sadler RK;Diaz KC;. Title: Extraperitoneal laparoscopic colposuspension: Short-term cure rate, complications, and duration of hospital stay in comparison with Burch colposuspension. Journal Name:	Retrospective review of laparoscopic vs. open Burch colposuspension, in 157 cases, for mean follow-up ~13-16 months. We have RCTs that have evaluated this comparison therefore excluded studies of lower evidence level.

Bibliographic information	Reason for rejecting study
Obstetrics and Gynecology. Year: 1998	
Authors: Stanton SL;Cardozo LD;. Title: A comparison of vaginal and suprapubic surgery in the correction of incontinence due to urethral sphincter incompetence. Journal Name: British Journal of Urology. Year: 1979	Non-randomised comparison of colposuspension and anterior repair. Higher level evidence considered for this comparison.
Authors: Washington JL;Somers K;. Title: Laparoscopic mesh and staple burch colposuspension. Journal Name: International Urogynecology Journal. Year: 2002	Comparison of laparoscopic colposuspension results with historical open colposuspension results. RCTs of this comparison included therefore studies of lower evidence level excluded.

Needle suspension

Bibliographic information	Reason for rejecting study
Authors: Bump RC;Hurt WG;Theofrastous JP;Addison WA;Fantl JA;Wyman JF;McClish DK;. Title: Randomized prospective comparison of needle colposuspension versus endopelvic fascia plication for potential stress incontinence prophylaxis in women undergoing vaginal reconstruction for stage III or IV pelvic organ prolapse. The Continence Program for W. Journal Name: American Journal of Obstetrics and Gynecology. Year: 1996 Aug	None of the women included in the study had UI
Authors: Chien GW;Tawadroas M;Kaptein JS;Mourad MS;Tebyani N;Aboseif SR;. Title: Surgical treatment for stress urinary incontinence with urethral hypermobility: what is the best approach?. Journal Name: World Journal of Urology. Year: 2002 Sep	Retrospective comparison of needle suspension, retropubic abdominal suspension, and cadaveric or autologous fascial sling in 189 cases, with mean follow-up of 30 months. Groups different at baseline in % having prior continence surgery, % with urgency.
Authors: Masson DB;Govier FE;Loughlin KR;. Title: Modified Pereyra bladder neck suspension in patients with intrinsic sphincter deficiency and bladder neck hypermobility: Patient satisfaction with a mean follow-up of 4 years. Journal Name: Urology. Year: 2000	Case series of 135 pts with ~4 yrs follow-up. No information given on long-term complications
Authors: Rodrigues NN;Lemos GC;Palma PC;Fiuza JL;. Title: Comparison of the Stamey bladder neck suspension procedure with a modified endoscopic suspension for the treatment of stress urinary incontinence. Journal Name: European Urology. Year: 1988	Cohort study with mean follow-up of 44 months; limited data provided. Study did not meet empirical inclusion criteria for cohort studies or case series of suspension procedures as it had insufficient duration of follow-up.
Authors: Shah PJ;Holder PD;. Title: Comparison of Stamey and Pereyra-Raz bladder neck suspensions. Journal Name: British Journal of Urology. Year: 1989 Nov	Non-randomised comparison of Stamey and Raz procedures in 47 women; follow-up ranging from 2 months to 2.5 years.

Synthetic slings

Bibliographic information	Reason for rejecting study
Authors: Al-Singary W;Arya M;Patel HR;. Title: Tension-free vaginal tape: avoiding failure. Journal Name: International Journal of Clinical Practice. Year: 2005 May	Inconsistencies in report (case series).
Authors: Ansquer Y;Marcollet A;Yazbeck C;Salomon L;Poncelet C;Thoury A;Dhainaut C;Madelenat P;. Title: The suburethral sling for female stress urinary incontinence: A retropubic or obturator approach?. Journal Name: Journal of the American Association of Gynecologic Laparoscopists. Year: 2004	Cohort study comparing outcomes for retropubic approach to a sling (TVT) vs. obturator approach (using any tape - TVT, IVS, prolene mesh, mersuture mesh, IVS, uratape). As not a direct comparison of one tape vs. another, or of a different method of introducing another, study excluded.
Authors: Bafghi A;Valerio L;Benizri EI;Trastour C;Benizri EJ;Bongain A;. Title: Comparison between monofilament and multifilament polypropylene tapes in urinary incontinence. Journal Name: European Journal of Obstetrics, Gynecology, and Reproductive Biology. Year: 2005 Oct 1	Non-randomised comparison of TVT and IVS; we have higher evidence level for this comparison.
Authors: Barry C;Naidu A;Lim Y;Corsitaans A;Muller R;Rane A;. Title: Does the MONARC transobturator suburethral sling cause post-operative voiding dysfunction? A prospective study. Journal Name: International Urogynecology Journal. Year: 2006	Focuses on voiding parameters (urodynamic measurements 8 wks after a procedure); limited useful data.
Authors: Dietz HP;Foote AJ;Mak HL;Wilson PD;. Title: TVT and Sparc suburethral slings: a case-control series. Journal Name: International Urogynecology Journal. Year: 2004 Mar	Case-control of TVT vs. SPARC. We have RCTs that evaluated this comparison, and only cure, improvement, and satisfaction considered. Additionally, the TVT cases were also included in a longitudinal case series evaluating TVT outcomes.
Authors: Gandhi S;Abramov Y;Kwon C;Beaumont JL;Botros S;Sand PK;Goldberg RP;. Title: TVT versus SPARC: Comparison of outcomes for two midurethral tape procedures. Journal Name: International Urogynecology Journal. Year: 2006	Retrospective review of TVT and SPARC cases; we have higher level of evidence (RCTs) comparing these interventions.
Authors: Glavind K;Sander P;. Title: Erosion, defective healing and extrusion after tension-free urethropexy for the treatment of stress urinary incontinence. Journal Name: International Urogynecology Journal. Year: 2004	Described as a case-control study but is not; the details of women across 2 centres who had tape erosion, defective healing, or tape extrusion after TVT or IVS insertion were reported. No other details (success, or other complications) given.
Authors: Persson J;Iosif C;Wolner-Hanssen P;. Title: Risk factors for rejection of synthetic suburethral slings for stress urinary incontinence: A case-control study. Journal Name: Obstetrics and Gynecology. Year: 2002	Review of 386 cases who had PTFE (goretex) or polyethylene (Mersilene) sling procedure, focusing on rejection, and how the rate of this reduced from 1991 to 1998 with the introduction of different practices (antibiotic prophylaxis, using a second vaginal wash). Series reflects factors affecting rejection rather than outcomes of procedures per se.
Authors: Ulmsten U;Petros P;. Title: Intravaginal slingplasty (IVS): An ambulatory surgical procedure for treatment of female urinary incontinence. Journal Name: Scandinavian Journal of Urology and Nephrology. Year: 1995	Series of women who underwent a sling procedure with one of 4 materials, rather than a report of outcomes following insertion of a single product.

Bibliographic information	Reason for rejecting study
Authors: Ulmsten U;. Title: The basic understanding and clinical results of tension-free vaginal tape for stress urinary incontinence. Journal Name: Urologe (Ausg. Year: 2001 Jul	Description of TVT technique and narrative of outcomes from published literature. Background information only.
Authors: Wang AC;Chen MC;. Title: The correlation between preoperative voiding mechanism and surgical outcome of the tension-free vaginal tape procedure, with reference to quality of life. Journal Name: BJU International. Year: 2003 Apr	Study compares continence and QOL outcomes in women with or without dysfunctional voiding (defined as having both max flow rate of 12 or less, and detrusor pressure at max flow rate of 20 or more). Does not fully address whether pre-op finding predict outcomes. Also some inconsistency in pt numbers reported (79 or 97), probably an error.
Authors: Wang AC;Lee L;Lin C;Chen J;. Title: A histologic and immunohistochemical analysis of defective vaginal healing after continence taping procedures: A prospective case-controlled pilot study. Journal Name: American Journal of Obstetrics and Gynecology. Year: 2004	Study investigates the pathogenesis of vaginal rejection reaction against prosthetic mesh (TVT or SPARC). Does not inform effectiveness of the intervention.
Authors: Wang AC;. Title: The techniques of trocar insertion and intraoperative urethrocystoscopy in tension-free vaginal taping: An experience of 600 cases. Journal Name: Acta Obstetricia et Gynecologica Scandinavica. Year: 2004	Considers identification & management of complications rather than effectiveness of the intervention.
Authors: Liapis A;Bakas P;Christopoulos P;Giner M;Creatsas G;. Title: Tension-free vaginal tape for elderly women with stress urinary incontinence. Journal Name: International Journal of Gynecology and Obstetrics. Year: 2006	Suspected duplication of cases from case series by same author, already included.
Authors: Meschia M;Pifarotti P;Buonaguidi A;Gattei U;Spennacchio M;. Title: Tension-free vaginal tape (TVT) for treatment of stress urinary incontinence in women with low-pressure urethra. Journal Name: European Journal of Obstetrics, Gynecology, and Reproductive Biology. Year: 2005 Sep 1	Study considers outcomes of TVT in women with high or low MUCP; the groups are difference in nearly all characteristics at baseline, therefore excluded due to major confounding.
Authors: Morey AF;Medendorp AR;Noller MW;Mora RV;Shandera KC;Foley JP;Rivera LR;Reyna JA;Terry PJ;. Title: Transobturator versus transabdominal mid urethral slings: A multi-institutional comparison of obstructive voiding complications. Journal Name: Journal of Urology. Year: 2006	Study compared pooled data for selected outcomes for retropubic vs. transobturator tape - this was done by us independently in the guideline.

Traditional slings - none

Hysterectomy

Bibliographic information	Reason for rejecting study

Bibliographic information	Reason for rejecting study
Authors: Altman D;Lopez A;Falconer C;Zetterstrom J;. Title: The impact of hysterectomy on lower urinary tract symptoms. Journal Name: International Urogynecology Journal. Year: 2003	Study evaluates impact of hysterectomy on UI, rather than hysterectomy being used as a treatment for UI.
Authors: Bai SW;Kim BJ;Kim SK;Park KH;. Title: Comparison of outcomes between Burch colposuspension with and without concomitant abdominal hysterectomy. Journal Name: Yonsei Medical Journal. Year: 2004 Aug 31	Study does not consider hysterectomy as a treatment for UI, but whether it impacts the outcomes of colposuspension which is not a question asked by the GDG.
Authors: Kayano CE;Sartori MGF;Baracat EC;Rodrigues De LG;Gira~o MJBC.;. Title: Vaginal hysterectomy allied with Kelly-Kennedy surgery and perineal repair for the treatment of patients with a prolapsed uterus and urinary stress incontinence. Journal Name: Clinical and Experimental Obstetrics and Gynecology. Year: 2002	Study evaluates hysterectomy in combination with other procedures, rather than on its own, for the treatment of prolapse and UI.
Authors: Kjerulff KH;Langenberg PW;Greenaway L;Uman J;Harvey LA;. Title: Urinary incontinence and hysterectomy in a large prospective cohort study in American women. Journal Name: Journal of Urology. Year: 2002	Study evaluates impact of hysterectomy on UI, rather than hysterectomy being used as a treatment for UI.
Authors: Langer R;Ron-El R;Neuman M;Herman A;Bukovsky I;Caspi E;. Title: The value of simultaneous hysterectomy during burch colposuspension for urinary stress incontinence. Journal Name: Obstetrics and Gynecology. Year: 1988	Study does not evaluate hysterectomy as a treatment for UI, but considers whether it impacts cure rates when used in combination with colposuspension, which was not the question asked by the GDG.
Authors: Long CY;Jang MY;Chen SC;Chen YH;Su JH;Hsu SC;. Title: Changes in vesicourethral function following laparoscopic hysterectomy versus abdominal hysterectomy. Journal Name: Australian and New Zealand Journal of Obstetrics and Gynaecology. Year: 2002	Study evaluates impact of hysterectomy on UI, rather than hysterectomy being used as a treatment for UI.
Authors: Vervest HA;Kiewiet de JM;Vervest TM;Barents JW;Haspels AA;. Title: Micturition symptoms and urinary incontinence after non-radical hysterectomy. Journal Name: Acta Obstetricia et Gynecologica Scandinavica. Year: 1988	Study evaluates impact of hysterectomy on UI, rather than hysterectomy being used as a treatment for UI.

Competence

Bibliographic information	Reason for rejecting study
Authors: . Title: Training guidelines for the use of botulinum toxin for the treatment of neurologic disorders. Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. Journal Name: Neurology. Year: 1994 Dec	Too specific for competence section, and also specific to population with neurologic dysfunction.

Bibliographic information	Reason for rejecting study
Authors: Beard JD;Jolly BC;Southgate LJ;Newble DI;Thomas EG;Rochester J;. Title: Developing assessments of surgical skills for the GMC Performance Procedures. Journal Name: Annals of the Royal College of Surgeons of England. Year: 2005	Pilot study investigating how surgeons perform on simulators. Not directly relevant to competence section of guideline. Too specific for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.
Authors: Berger DH;Ko CY;Spain DA;. Title: Society of University Surgeons position statement on the volume-outcome relationship for surgical procedures. Journal Name: Surgery. Year: 2003 Jul	Background information.
Authors: Birkmeyer JD;Siewers AE;Finlayson EV;Stukel TA;Lucas FL;Batista I;Welch HG;Wennberg DE;. Title: Hospital volume and surgical mortality in the United States.. Journal Name: New England Journal of Medicine. Year: 2002 Apr 11	Specific to cardiovascular and cancer-related procedures.
Authors: Birkmeyer JD;Stukel TA;Siewers AE;Goodney PP;Wennberg DE;Lucas FL;. Title: Surgeon volume and operative mortality in the United States.. Journal Name: New England Journal of Medicine. Year: 2003 Nov 27	Systematic review of volume-outcome studies included therefore individual studies excluded.
Authors: Christian CK;Gustafson ML;Betensky RA;Daley J;Zinner MJ;. Title: The volume-outcome relationship: don't believe everything you see.. Journal Name: World Journal of Surgery. Year: 2005 Oct	Background information.
Authors: Cundiff GW;. Title: Analysis of the effectiveness of an endoscopy education program in improving residents' laparoscopic skills. Journal Name: Obstetrics and Gynecology. Year: 1997 Nov	Not relevant to UI competence section as addressed within the guideline.
Authors: Cundiff GW;. Title: Graduate education. Analysis of the effectiveness of an endoscopy education program in improving residents' laparoscopic skills. Journal Name: Obstetrics and Gynecology. Year: 1997	Too specific for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.
Authors: Davies RJ;Hamdorf JM;. Title: Surgical skills training and the role of skills centres. Journal Name: BJU International. Year: 2003 Jan	Specific to Australia.
Authors: Daya S;. Title: Issues in surgical therapy evaluation: Technical skill of the surgeon. Journal Name: Evidence-based Obstetrics and Gynecology. Year: 2003	Discusses how different surgical skills may introduce bias into intervention studies re surgery. Of interest but not relevant to competence section.
Authors: Figert PL;Park AE;Witzke DB;Schwartz RW;. Title: Transfer of training in acquiring laparoscopic skills. Journal Name: Journal of the American College of Surgeons. Year: 2001	Too specific for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.
Authors: Goff BA;Nielsen PE;Lentz GM;Chow GE;Chalmers RW;Fenner D;Mandel LS;. Title: Surgical skills assessment: A blinded examination of obstetrics and gynecology	Too specific for UI guideline section on competence; we did not consider acquisiton of specific surgical skills.

Bibliographic information	Reason for rejecting study
residents. Journal Name: American Journal of Obstetrics and Gynecology. Year: 2002	
Authors: Gupta R;Guillonneau B;Cathelineau X;Baumert H;Vallencien G;. Title: In vitro training program to improve ambidextrous skill and reduce physical fatigue during laparoscopic surgery: preliminary experience. Journal Name: Journal of Endourology. Year: 2003 Jun	Too specific for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.
Authors: Khuri SF;Henderson WG;. Title: The case against volume as a measure of quality of surgical care. Journal Name: World Journal of Surgery. Year: 2005	Background information.
Authors: Panageas KS;Schrag D;Riedel E;Bach PB;Begg CB;. Title: The effect of clustering of outcomes on the association of procedure volume and surgical outcomes.. Journal Name: Annals of Internal Medicine. Year: 2003 Oct 21	Background information.
Authors: See WA;Fisher RJ;Winfield HN;Donovan JF;. Title: Laparoscopic surgical training: Effectiveness and impact on urological surgical practice patterns. Journal Name: Journal of Urology. Year: 1993	Too specific for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.
Authors: Shalhav AL;Dabagia MD;Wagner TT;Koch MO;Lingeman JE;. Title: Training postgraduate urologists in laparoscopic surgery: The current challenge. Journal Name: Journal of Urology. Year: 2002	Too specific to USA for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.
Authors: Siddiqui J;Tuffnell D;. Title: Minimising risk in gynaecological surgery. Journal Name: Reviews in Gynaecological Practice. Year: 2005	Discusses risk management in general terms.
Authors: Singh R;O'Brien TS;. Title: The relationship between volume and outcome in urological surgery.. Journal Name: BJU International. Year: 2004 May	Narrative review re volume-outcome, but not in relation to UI.
Authors: Traxer O;Gettman MT;Napper CA;Scott DJ;Jones DB;Roehrborn CG;Pearle MS;Cadeddu JA;. Title: The impact of intense laparoscopic skills training on the operative performance of urology residents. Journal Name: Journal of Urology. Year: 2001	Too specific for UI guideline section on competence; we did not consider how to acquire specific surgical skills, nor did we consider different methods of assessing them.

2013 Update tables

Percutaneous PTNS vs NAT for OAB

Study	Reason for exclusion
Bellette,P.O., Rodrigues-Palma,P.C., Hermann,V., Riccetto,C., Bigozzi,M., Olivares,J.M., Posterior tibial nerve stimulation in the management of overactive bladder: a prospective and controlled study. [Spanish]Electroestimulacion del nervio tibial posterior para el tratamiento de la vejiga hiperactiva. Estudio prospectivo y controlado, Actas urologicas espanolas, 33, 58-63, 2009	PICO not met - Study examined Transcutaneous posterior tibial nerve stimulation
Bower,W.F., Moore,K.H., Adams,R.D., Randomised sham-controlled trial of two surface neuromodulation sites in women with detrusor instability, Neurourology and Urodynamics, 16, 428-429, 1997	PICO not met - Study examined Transcutaneous posterior tibial nerve stimulation
Burton,C., Sajja,A., Latthe,P.M., Effectiveness of percutaneous posterior tibial nerve stimulation for overactive bladder: A systematic review and meta-analysis, Neurourology and UrodynamicsNeurourol.Urodyn., 31, 1206-1216, 2012	Systematic review of percutaneous posterior tibial nerve stimulation
Chen,H., Bercik,R., Thung,S., Cost-effectiveness of percutaneous tibial nerve stimulation versus extended-release tolterodine for overactive bladder, Neurourology and Urodynamics, 30, 247-, 2011	Secondary publication of an excluded study.
Finazzi,Agro E., Campagna,A., Sciobica,F., Petta,F., Germani,S., Zuccala,A., Miano,R., Posterior tibial nerve stimulation: is the once-a-week protocol the best option?, Minerva Urologica e Nefrologica, 57, 119-123, 2005	Study compared two different Percutaneous tibial nerve stimulation schedules but there was no "No active treatment" control group.
Jeyaseelan,S.M., Haslam,E.J., Winstanley,J., Roe,B.H., Oldham,J.A., An evaluation of a new pattern of electrical stimulation as a treatment for urinary stress incontinence: A randomized, double-blind, controlled trial, Clinical Rehabilitation, 14, 631-640, 2000	PICO not met - Study included women with stress urinary incontinence not overactive bladder
Macdiarmid,S.A., Peters,K.M., Leong,F.C., Shobeiri,S.A., Rovner,E.S., Wooldridge,L.S., Siegel,S.W., Tate,S.S., Jarnagin,B.K., Rosenblatt,P.L., Feagins,B.A., Long-term sustained therapeutic effect of percutaneous tibial nerve stimulation in the management of Overactive Bladder, Journal of Urology, 181, 677-678, 2009	Secondary publication of an excluded study.
MacDiarmid,S.A., Peters,K.M., Shobeiri,S.A., Wooldridge,L.S., Rovner,E.S., Leong,F.C., Siegel,S.W., Tate,S.B., Feagins,B.A., Long-term durability of percutaneous tibial nerve stimulation for the treatment of overactive bladder, Journal of Urology, 183, 234-240, 2010	Secondary publication of an excluded study.
Palma,P., Beletti,P., Riccetto,C., Palma,T., Herrmann,V., Miyaoka,R., A randomized controlled study of posterior tibial nerve stimulation for overactive bladder (Abstract	Secondary publication of an excluded study

Study	Reason for exclusion
number 211), International Urogynecology Journal, 19, S175, 2008-, 2008	
Palma,P.C., Bellette,P.O., Herrmann,V., Riccetto,C., Posterior tibial nerve stimulation is superior than placebo for idiopathic overactive bladder (Abstract number 470), Journal of Urology, 179, 165-166, 2008	Secondary publication of an excluded study
Peters,K., Carrico,D., MacDiarmid,S., Wooldridge,L., Insight into percutaneous tibial nerve stimulation: Critical evaluation of the SUmiT Trial, Journal of Urology, 185, e465-, 2011	Secondary publication of an included study "Peters et al., 2010"
Peters,K., Carrico,D., Perez-Marrero,R., Khan,A., Wooldridge,L., Davis,G., MacDiarmid,S., 12 week results from the sumit trial: Percutaneous tibial nerve stimulation vs validated sham in those exposed to pharmacologic therapy, Neurourology and Urodynamics, 29, 988-989, 2010	Secondary publication of an included study "Peters et al., 2010"
Peters,K.M., Carrico,D.J., Perez-Marrero,R., Khan,A.U., Wooldridge,L.S., Davis,G.L., Macdiarmid,S.A., New efficacy data on percutaneous tibial nerve stimulation: A multi-center, randomized, sham-controlled trial for overactive bladder syndrome, Neurourology and Urodynamics, 29, 317-318, 2010	Secondary publication of an included study "Peters et al., 2010"
Peters,K.M., MacDiarmid,S.A., Wooldridge,L.S., Leong,F.C., Shobeiri,S.A., Rovner,E.S., Siegel,S.W., Tate,S.B., Jarnagin,B.K., Rosenblatt,P.L., Feagins,B.A., Randomized trial of percutaneous tibial nerve stimulation versus extended-release tolterodine: results from the overactive bladder innovative therapy trial, Journal of Urology, 182, 1055-1061, 2009	PICO not met - Study compared percutaneous tibial nerve stimulation with anti-muscarinic drugs not with 'no active treatment'
Schreiner,L., dos Santos,T.G., Knorst,M.R., da,Silva Filho,I, Randomized trial of transcutaneous tibial nerve stimulation to treat urge urinary incontinence in older women, International Urogynecology Journal, 21, 1065-1070, 2010	PICO not met - Study examined Transcutaneous posterior tibial nerve stimulation
Svihra,J., Kurca,E., Luptak,J., Kliment,J., Neuromodulative treatment of overactive bladder--noninvasive tibial nerve stimulation, Bratislavske Lekarske Listy, 103, 480-483, 2002	PICO not met - Study examined Transcutaneous posterior tibial nerve stimulation
Vohra,A.K., Britchford,A., Neale,E., Husain,I., Waterfall,N., The efficacy of Stoller afferent nerve stimulation in frequency/urgency syndrome: A randomised control trial (Abstract), Proceedings of the International Continence Society (ICS), 32nd Annual Meeting,, 2002 Aug 28-30, Heidelberg, Germany 133-134p. 2002., -30, 2002	Conference abstract
Wein,A.J., Percutaneous tibial nerve stimulation in the treatment of overactive bladder: urodynamic data, Journal of Urology, 170, 1051-, 2003	Commentary

Transcutaneoous PTNS for OAB

Study	Reason for exclusion
Bower,W.F., Moore,K.H., Adams,R.D., Randomised sham-controlled trial of two surface neuromodulation sites in women with detrusor instability, Neurourology and Urodynamics, 16, 428-429, 1997	Conference abstract of an excluded study
Bower,W.F., Moore,K.H., Adams,R.D., Shepherd,R., A urodynamic study of surface neuromodulation versus sham in detrusor instability and sensory urgency, Journal of Urology, 160, 2133-2136, 1998	Experimental study of a single use of nerve stimulation during cystometry
Palma,P., Beletti,P., Riccetto,C., Palma,T., Herrmann,V., Miyaoka,R., A randomized controlled study of posterior tibial nerve stimulation for overactive bladder (Abstract number 211), International Urogynecology Journal, 19, S175, 2008-, 2008	Conference abstract of included study
Palma,P.C., Bellette,P.O., Herrmann,V., Riccetto,C., Posterior tibial nerve stimulation is superior than placebo for idiopathic overactive bladder (Abstract number 470), Journal of Urology, 179, 165-166, 2008	Conference abstract of included study
Sancaktar,M., Ceyhan,S.T., Akyol,I., Muhcu,M., Alanbay,I., Mutlu,Ercan C., Atay,V., The outcome of adding peripheral neuromodulation (Stoller afferent neuro-stimulation) to anti-muscarinic therapy in women with severe overactive bladder, Gynecological Endocrinology, 26, 729-732, 2010	Study used an active control
Schreiner,L., dos Santos,T.G., Knorst,M.R., da,Silva Filho,I, Randomized trial of transcutaneous tibial nerve stimulation to treat urge urinary incontinence in older women, International Urogynecology Journal, 21, 1065-1070, 2010	Study used an active control
Soomro,N.A., Khadra,M.H., Robson,W., Neal,D.E., A crossover randomized trial of transcutaneous electrical nerve stimulation and oxybutynin in patients with detrusor instability, Journal of Urology, 166, 146-149, 2001	Study used an active control
Vohra,A.K., Britchford,A., Neale,E., Husain,I., Waterfall,N., The efficacy of Stoller afferent nerve stimulation in frequency/urgency syndrome: A randomised control trial (Abstract), Proceedings of the International Continence Society (ICS), 32nd Annual Meeting,, 2002 Aug 28-30, Heidelberg, Germany 133-134p. 2002., -30	Conference abstract
Walsh,I.K., Thompson,T., Loughridge,W.G., Johnston,S.R., Keane,P.F., Stone,A.R., Non-invasive antidromic neurostimulation: a simple effective method for improving bladder storage, Neurourology and Urodynamics, 20, 73-84, 2001	Experimental study of a single use of nerve stimulation during cystometry

Sacral nerve stimulation vs NAT for OAB

Study	Reason for exclusion
Bower,W.F., Moore,K.H., Adams,R.D., Randomised sham-controlled trial of two surface neuromodulation sites in women with detrusor instability, Neurourology and Urodynamics, 16, 428-429, 1997	PICO not met - Study examined transcutaneous nerve stimulation not sacral nerve stimulation
Das,A.K., Carlson,A.M., Hull,M., Improvement in depression and health-related quality of life after sacral nerve stimulation therapy for treatment of voiding dysfunction, Urology, 64, 62-68, 2004	Analysis of a subset of patients from 'Schmidt 1999'
Edlund,C., Dijkema,H.E., Hassouna,M.M., Van,KerrebroeckPh, Peeker,R., Van,DenHomberghU, Fall,M., Sacral nerve stimulation for refractory urge symptoms in elderly patients, Scandinavian Journal of Urology and Nephrology, 38, 131-135, 2004	Analysis of a subset of patients from 'Schmidt 1999'
Hassouna,M.M., Siegel,S.W., Lycklama,A.N., Elhilali,M.M., Van,KerrebroeckP, Das,A.K., Gajewski,J.B., Janknegt,R.A., Rivas,D.A., Dijkema,H., Milam,D.F., Oleson,K.A., Schmidt,R.A., Sacral neuromodulation in the treatment of urgency-frequency symptoms: A multicenter study on efficacy and safety, Journal of Urology, 163, 1849-1854, 2000	Study included in original guideline
Janknegt,R., Van,Kerrebroeck PhEV, Schmidt,R., Siegel,S., Hassouna,M.M., Jonas,U., Oleson,K., the SNS Study Group, Sacral nerve stimulation (SNS) as treatment for refractory urge incontinence: long-term results (12 months) after proper patient selection in a prospective randomised study (Abstract), http://www urologychannel com/SNSForum/JournalArticles2 shtml, 1999., -	Second report of 'Schmidt 1999'
Jeyaseelan,S.M., Haslam,E.J., Winstanley,J., Roe,B.H., Oldham,J.A., An evaluation of a new pattern of electrical stimulation as a treatment for urinary stress incontinence: A randomized, double-blind, controlled trial, Clinical Rehabilitation, 14, 631-640, 2000	PICO not met - Population included women with stress incontinence, not overactive bladder
O'Reilly,B.A., Fynes,M., Achtari,C., Hiscock,R., Thomas,E., Murray,C., Dwyer,P.L., A prospective randomised double-blind controlled trial evaluating the effect of trans-sacral magnetic stimulation in women with overactive bladder, International Urogynecology Journal, 19, 497-502, 2008	PICO not met - Study examined trans-sacral magnetic stimulation of the S3 and S4 sacral nerve
Peters,K.M., Feber,K.M., Bennett,R.C., Sacral versus pudendal nerve stimulation for voiding dysfunction: A prospective, single-blinded, randomized, crossover trial, Neurourology and Urodynamics, 24, 643-647, 2005	PICO not met - Study compares Sacral nerve stimulation with pudendal nerve stimulation, not placebo/delayed treatment control
Schmidt,R.A., Jonas,U., Oleson,K.A., Janknegt,R.A., Hassouna,M.M., Siegel,S.W., Van,KerrebroeckP, Sacral nerve stimulation for treatment of refractory urinary urge	Study included in original guideline

incontinence, Journal of Urology, 162, 352-357, 1999	
Weil,E.H., Ruiz-Cerda,J.L., Eerdmans,P.H., Janknegt,R.A., Bemelmans,B.L., van Kerrebroeck,P.E., Sacral root neuromodulation in the treatment of refractory urinary urge incontinence: a prospective randomized clinical trial, European Urology, 37, 161-171, 2000	Study included in original guideline

In women with OAB, what is the comparative effectiveness of pharmacological interventions?

Study	Reason for exclusion
Abrams,P., Cardozo,L., Chapple,C., Serdarevic,D., Hargreaves,K., Khullar,V., Study Group., Comparison of the efficacy, safety, and tolerability of propiverine and oxybutynin for the treatment of overactive bladder syndrome, International Journal of Urology, 13, 692-698, 2006	PICO not met - Study duration < 4 weeks
Alloussi,S., Laval,K.-U., Eckert,R., Ballering-Bruhl,B., Grosse-Freese,M., Bulitta,M., Schafer,M., Trospium chloride (Spasmo-lyt(TM)) in patients with motor urge syndrome (detrusor instability): A double-blind, randomised, multicentre, placebo-controlled study, Journal of Clinical Research, 1, 439-451, 1998	PICO not met - Study duration less than 4 weeks
Anderson,R.U., Mobley,D., Blank,B., Saltzstein,D., Susset,J., Brown,J.S., Once daily controlled versus immediate release oxybutynin chloride for urge urinary incontinence. OROS Oxybutynin Study Group, Journal of UrologyJ.Urol., 161, 1809-1812, 1999	PICO not met - Study did not provide data at time-points of interst
Anderson,R.U., MacDiarmid,S., Kell,S., Barada,J.H., Serels,S., Goldberg,R.P., Effectiveness and tolerability of extended-release oxybutynin vs extended-release tolterodine in women with or without prior anticholinergic treatment for overactive bladder, International Urogynecology Journal, 17, 502-511, 2006	Secondary publication of an included study 'Diokno 2003'
Barkin,J., Corcos,J., Radomski,S., Jammal,M.P., Miceli,P.C., Reiz,J.L., Harsanyi,Z., Darke,A.C., UROMAX Study Group., A randomized, double-blind, parallel-group comparison of controlled- and immediate-release oxybutynin chloride in urge urinary incontinence, Clinical TherapeuticsClin.Ther., 26, 1026-1036, 2004	PICO not met - Study does not provide data at time-points of interest
Birns,J., Lukkari,E., Malone-Lee,J.G., A randomized controlled trial comparing the efficacy of controlled-release oxybutynin tablets (10 mg once daily) with conventional oxybutynin tablets (5 mg twice daily) in patients whose symptoms were stabilized on 5 mg twice daily of oxybutynin, BJU International, 85, 793-798, 2000	PICO not met - Participants were known responders to anti-muscarinics
Bodeker,R.H., Madersbacher,H., Neumeister,C., Zellner,M., Dose escalation improves therapeutic outcome: post hoc analysis of data from a 12-week, multicentre, double-	Secondary publication of an included study "Zellner et al., 2009"

Study	Reason for exclusion
blind, parallel-group trial of trospium chloride in patients with urinary urge incontinence, BMC Urology, Vol.10, -, 2010	
Cardozo,L., Chapple,C.R., Toozs-Hobson,P., Grosse-Freese,M., Bulitta,M., Lehmacher,W., Strosser,W., Ballering-Bruhl,B., Schafer,M., Efficacy of trospium chloride in patients with detrusor instability: a placebo-controlled, randomized, double-blind, multicentre clinical trial, BJU International, 85, 659-664, 2000	PICO not met - Study does not provide data at time-points of interest
Cardozo,L., Dixon,A., Increased warning time with darifenacin: a new concept in the management of urinary urgency, Journal of UrologyJ.Urol., 173, 1214-1218, 2005	PICO not met - Study does not provide data at time-points of interest
Cardozo,L., Hessdorfer,E., Milani,R., Arano,P., Dewilde,L., Slack,M., Drogendijk,T., Wright,M., Bolodeoku,J., SUNRISE Study Group., Solifenacin in the treatment of urgency and other symptoms of overactive bladder: results from a randomized, double-blind, placebo-controlled, rising-dose trial, BJU International, 102, 1120-1127, 2008	PICO not met - Study does not report on 'continence status' or 'discontinuation for any reason' outcomes either 4 or 12 weeks
Cartwright,R., Srikrishna,S., Cardozo,L., Robinson,D., Validity and reliability of patient selected goals as an outcome measure in overactive bladder, International Urogynecology Journal, 22, 841-847, 2011	Secondary publication of an included study 'Cartwright et al., 2010'
Cartwright,R., Srikrishna,S., Cardozo,L., Robinson,D., Validity and reliability of the patient's perception of intensity of urgency scale in overactive bladder, BJU International, 107, 1612-1617, 2011	Secondary publication of an included study 'Cartwright et al., 2010'
Chancellor,M., Freedman,S., Mitcheson,H.D., Antoci,J., Primus,G., Wein,A., Tolterodine, an effective and well tolerated treatment for urge incontinence and other overactive bladder symptoms, Clinical Drug Investigation, 19, 83-91, 2000	Secondary publication of an included study " Van Kerrebroeck et al., 2001"
Chapple,C.R., Fianu-Jonsson,A., Indig,M., Khullar,V., Rosa,J., Scarpa,R.M., Mistry,A., Wright,D.M., Bolodeoku,J., STAR study group., Treatment outcomes in the STAR study: a subanalysis of solifenacin 5 mg and tolterodine ER 4 mg, European Urology, 52, 1195-1203, 2007	Secondary publication of an included study 'Chapple 2005'
Chapple,C.R., Patroneva,A., Raines,S.R., Effect of an ATP-sensitive potassium channel opener in subjects with overactive bladder: a randomized, double-blind, placebo-controlled study (ZD0947IL/0004), European Urology, 49, 879-886, 2006	Unclear of drugs class of experimental intervention
Chapple,C.R., Van Kerrebroeck,P.E., Junemann,K.P., Wang,J.T., Brodsky,M., Comparison of fesoterodine and tolterodine in patients with overactive bladder, BJU International, 102, 1128-1132, 2008	Secondary publication of an included study "Chapple et al., 2007"

Study	Reason for exclusion
Chu,F., Smith,N., Uchida,T., Efficacy and safety of solifenacin succinate 10 mg once Daily: A multicenter, phase III, randomized, double-blind, placebo-controlled, parallel-group trial in patients with overactive bladder, Current Therapeutic Research - Clinical and Experimental, 70, 405-420, 2009	PICO not met - Dose used (10mg QD) is more than the recommended adult starting dose of Solifenacin (5mg QD)
Corcos,J., Angulo,J.C., Garely,A.D., Carlsson,M., Gong,J., Guan,Z., Effect of fesoterodine 4 mg on bladder diary and patient-reported outcomes during the first week of treatment in subjects with overactive bladder, Current Medical Research and Opinion, 27, 1059-1065, 2011	Secondary publication of an included study 'Herschorn et al., 2009'
Coyne,K.S., Margolis,M.K., Thompson,C., Kopp,Z., Psychometric equivalence of the OAB-q in Danish, German, Polish, Swedish, and Turkish, Value in Health, 11, 1096-1101, 2008	Insufficient details on core outcomes for network meta-analysis
Crosby,R.D., Mathias,S.D., Marshall,T.S., Relationships between symptoms, symptom bother, and health-related quality of life in patients with overactive bladder taking solifenacin or placebo in the VIBRANT study, International Journal of Clinical Practice, 65, 211-218, 2011	Secondary publication of an included study 'Vardy etal., 2009'
Davila,G.W., Daugherty,C.A., Sanders,S.W., Transdermal Oxybutynin Study Group., A short-term, multicenter, randomized double-blind dose titration study of the efficacy and anticholinergic side effects of transdermal compared to immediate release oral oxybutynin treatment of patients with urge urinary incontinence, Journal of UrologyJ.Urol., 166, 140-145, 2001	PICO not met - Study does not provide data at time-points of interest
Dmochowski,R.R., Sand,P.K., Zinner,N.R., Gittelman,M.C., Davila,G.W., Sanders,S.W., Comparative efficacy and safety of transdermal oxybutynin and oral tolterodine versus placebo in previously treated patients with urge and mixed urinary incontinence, Urology, 62, 237-242, 2003	PICO not met - Participants were known responders to anti-muscarinics
Dmochowski,R.R., Peters,K.M., Morrow,J.D., Guan,Z., Gong,J., Sun,F., Randomized, double-blind, placebo-controlled trial of flexible-dose fesoterodine in subjects with overactive bladder (Urology (2010) 75, 1, (62-68)), Urology, 77, 1513-, 2011	Erratum of an included study
Dmochowski,R.R., Rosenberg,M.T., Zinner,N.R., Staskin,D.R., Sand,P.K., Extended-release trospium chloride improves quality of life in overactive bladder, Value in Health, 13, 251-257, 2010	Pooled analysis of two included studies
Frenkl,T.L., Zhu,H., Reiss,T., Seltzer,O., Rosenberg,E., Green,S., A multicenter, double-blind, randomized, placebo controlled trial of a neurokinin-1 receptor	8 week study but no outcomes reported at 4 week timepoint

Study	Reason for exclusion
antagonist for overactive bladder, Journal of Urology, 184, 616-622, 2010	
Giannitsas,K., Perimenis,P., Athanasopoulos,A., Gyftopoulos,K., Nikiforidis,G., Barbalias,G., Comparison of the efficacy of tolterodine and oxybutynin in different urodynamic severity grades of idiopathic detrusor overactivity, European UrologyEur.Urol., 46, 776-782, 2004	PICO not met - Study does not provide data on outcomes of interest
Gotoh,M., Yokoyama,O., Nishizawa,O., Propiverine hydrochloride in Japanese patients with overactive bladder: A randomized, double-blind, placebo-controlled trial, International Journal of Urology, 18, 365-373, 2011	PICO not met - Dose used (20mg QD) is lower than the recommended starting adult dose of Propiverine ER (30mg QD)
Guest,J.F., Abegunde,D., Ruiz,F.J., Cost Effectiveness of Controlled-Release Oxybutynin Compared with Immediate-Release Oxybutynin and Tolterodine in the Treatment of Overactive Bladder in the UK, France and Austria, Clinical Drug Investigation, 24, 305-321, 2004	Health economic analysis
Hakkaart,L., Verboom,P., Phillips,R., Al,M.J., The cost utility of solifenacin in the treatment of overactive bladder, International Urology and Nephrology, 41, 293-298, 2009	Health economic analysis
Halaska,M., Ralph,G., Wiedemann,A., Primus,G., Ballering-Bruhl,B., Hofner,K., Jonas,U., Controlled, double-blind, multicentre clinical trial to investigate long-term tolerability and efficacy of trospium chloride in patients with detrusor instability, World Journal of UrologyWorld J.Urol., 20, 392-399, 2003	PICO not met - Study does not provide data at time-points of interest
Herschorn,S., Heesakkers,J., Castro-Diaz,D., Wang,J.T., Brodsky,M., Guan,Z., Disease Management Study Team., Effects of tolterodine extended release on patient perception of bladder condition and overactive bladder symptoms*, Current Medical Research and Opinion, 24, 3513-3521, 2008	Health economic analysis
Herschorn,S., Pommerville,P., Stothers,L., Egerdie,B., Gajewski,J., Carlson,K., Radomski,S., Drutz,H., Schulz,J., Barkin,J., Hirshberg,E., Corcos,J., Tolerability of solifenacin and oxybutynin immediate release in older (> 65 years) and younger (<= 65 years) patients with overactive bladder: sub-analysis from a Canadian, randomized, double-blind study, Current Medical Research and Opinion, 27, 375-382, 2011	Secondary publication of an included study 'Herschorn et al., 2010'
Herschorn,S., Stothers,L., Carlson,K., Egerdie,B., Gajewski,J.B., Pommerville,P., Schulz,J., Radomski,S., Drutz,H., Barkin,J., Paradiso-Hardy,F., Tolerability of 5 mg solifenacin once daily versus 5 mg oxybutynin immediate release 3 times daily: results of the VECTOR trial, Journal of Urology, 183, 1892-1898, 2010	Study (8 weeks duration) does not report on outcomes at 4 weeks

Study	Reason for exclusion
Herschorn,S., Vicente,C., Piwko,C., Canadian cost-effectiveness analysis of solifenacin compared to oxybutynin immediate-release in patients with overactive bladder, Journal of Medical Economics, 13, 508-515, 2010	Health economic analysis
Homma,Y., Koyama,N., Minimal clinically important change in urinary incontinence detected by a quality of life assessment tool in overactive bladder syndrome with urge incontinence, Neurourology and Urodynamics, 25, 228-235, 2006	Study (8 weeks) does not report outcomes at 4 weeks
Homma,Y., Yamaguchi,O., Imidafenacin Study Group., A randomized, double-blind, placebo- and propiverine-controlled trial of the novel antimuscarinic agent imidafenacin in Japanese patients with overactive bladder, International Journal of Urology, 16, 499-506, 2009	PICO not met = Starting Propiverine ER dose (20mg QD) is less than the recommended adult starting dose of 30mg QD
Hsiao,S.M., Chang,T.C., Wu,W.Y., Chen,C.H., Yu,H.J., Lin,H.H., Comparisons of urodynamic effects, therapeutic efficacy and safety of solifenacin versus tolterodine for female overactive bladder syndrome, Journal of Obstetrics and Gynaecology Research, 37, 1084-1091, 2011	Paper reports on outcomes of female participants of an unpublished RCT.
Huang,A.J., Hess,R., Arya,L.A., Richter,H.E., Subak,L.L., Bradley,C.S., Rogers,R.G., Myers,D.L., Johnson,K.C., Gregory,W.T., Kraus,S.R., Schembri,M., Brown,J.S., Pharmacologic treatment for urgency-predominant urinary incontinence in women diagnosed using a simplified algorithm: a randomized trial, American Journal of Obstetrics and Gynecology, 206, 444-11, 2012	Secondary publication of an included study (Huang et al., 2012)
Kelleher,C.J., Kreder,K.J., Pleil,A.M., Burgess,S.M., Reese,P.R., Long-term health-related quality of life of patients receiving extended-release tolterodine for overactive bladder, American Journal of Managed CareAm.J.Manag.Care, 8, S608-S615, 2002	Secondary publication of an included study "van Kerrebroeck et al., 2001"
Kelleher,C.J., Tubaro,A., Wang,J.T., Kopp,Z., Impact of fesoterodine on quality of life: pooled data from two randomized trials, BJU International, 102, 56-61, 2008	Secondary analysis of two RCT's
Lackner,T.E., Wyman,J.F., McCarthy,T.C., Monigold,M., Davey,C., Randomized, placebo-controlled trial of the cognitive effect, safety, and tolerability of oral extended-release oxybutynin in cognitively impaired nursing home residents with urge urinary incontinence, Journal of the American Geriatrics Society, 56, 862-870, 2008	PICO not met - Study only included women with cognitive impairment.
Lackner,T.E., Wyman,J.F., McCarthy,T.C., Monigold,M., Davey,C., Efficacy of oral extended-release oxybutynin in cognitively impaired older nursing home residents with urge urinary incontinence: a randomized placebo-controlled trial, Journal of the American Medical Directors Association, 12, 639-647, 2011	PICO not met - Study only included women with cognitive impairment

Study	Reason for exclusion
Lee,K.S., Lee,H.W., Choo,M.S., Paick,J.S., Lee,J.G., Seo,J.T., Lee,J.Z., Lee,Y.S., Yoon,H., Park,C.H., Na,Y.G., Jeong,Y.B., Lee,J.B., Park,W.H., Urinary urgency outcomes after propiverine treatment for an overactive bladder: the 'Propiverine study on overactive bladder including urgency data', BJU International, 105, 1565-1570, 2010	PICO not met - Starting dose of Propiverine ER dose (20mg QD) is less than recommended adult starting dose of 30mg QD
Madhuvrata,P., Cody,J.D., Ellis,G., Herbison,G.P., Hay-Smith,J.C., Which anticholinergic drug for overactive bladder symptoms in adults. [81 refs], Cochrane Database of Systematic Reviews, CD005429-, 20012	Systematic review adapted for use in head-to-head comparison
Malhotra,B.K., Glue,P., Sweeney,K., Anziano,R., Mancuso,J., Wicker,P., Thorough QT study with recommended and supratherapeutic doses of tolterodine, Clinical Pharmacology and Therapeutics, 81, 377-385, 2007	Study duration < 4 weeks
Marencak,J., Cossons,N.H., Darekar,A., Mills,I.W., Investigation of the clinical efficacy and safety of pregabalin alone or combined with tolterodine in female subjects with idiopathic overactive bladder, Neurourology and Urodynamics, 30, 75-82, 2011	Crossover study - no data on 1st study period
Mazur,D., Wehnert,J., Dorschner,W., Schubert,G., Herfurth,G., Alken,R.G., Clinical and urodynamic effects of propiverine in patients suffering from urgency and urge incontinence. A multicentre dose-optimizing study, Scandinavian Journal of Urology and Nephrology, 29, 289-294, 1995	PICO not met - Study does not provide data at time-points of interest
Newman,D.K., Hanno,P.M., Dmochowski,R.R., Rudy,D.C., Thomas,H., Caramelli,K.E., Hoel,G., Effects of oxybutynin chloride topical gel on health-related quality of life in adults with overactive bladder: A randomized, double-blind, placebo-controlled study, Clinical Medicine Insights: Therapeutics, 2, 889-896, 2010	Secondary publication of an included study 'Staskin et al, 2009'
Nitti,V.W., Dmochowski,R., Appell,R.A., Wang,J.T., Bavendam,T., Guan,Z., Study Group., Efficacy and tolerability of tolterodine extended-release in continent patients with overactive bladder and nocturia, BJU International, 97, 1262-1266, 2006	Secondary publication of an included study 'Rackley et al., 2006'
Nitti,V.W., Rovner,E.S., Bavendam,T., Response to fesoterodine in patients with an overactive bladder and urgency urinary incontinence is independent of the urodynamic finding of detrusor overactivity, BJU International, 105, 1268-1275, 2010	Study (8 weeks duration) does not report outcomes at 4 weeks
Noe,L., Becker,R., Williamson,T., Chen,D., A pharmacoeconomic model comparing two long-acting treatments for overactive bladder, Journal of Managed Care Pharmacy, 8, 343-352, 2002	Health economic analysis
Pontari,M.A., Mohamed,F.B., Lebovitch,S., Moonat,S., Lebed,B., Ruggieri,M.R.,	PICO not met - Study doe snot provide details on urinary incontinence related

Study	Reason for exclusion
Faro,S.H., Central nervous system findings on functional magnetic resonance imaging in patients before and after treatment with anticholinergic medication, Journal of Urology, 183, 1899-1905, 2010	outcomes
Robinson,D., Cardozo,L., Terpstra,G., Bolodeoku,J., Tamsulosin Study Group., A randomized double-blind placebo-controlled multicentre study to explore the efficacy and safety of tamsulosin and tolterodine in women with overactive bladder syndrome, BJU International, 100, 840-845, 2007	Study (6 weeks duration) does not report on outcomes at 4 weeks
Rogers,R.G., Bachmann,G., Scarpero,H., Jumadilova,Z., Sun,F., Morrow,J.D., Guan,Z., Bavendam,T., Effects of tolterodine ER on patient-reported outcomes in sexually active women with overactive bladder and urgency urinary incontinence, Current Medical Research and Opinion, 25, 2159-2165, 2009	Secondary publication of an included study 'Rogers et al., 2008'
Rudy,D., Cline,K., Harris,R., Goldberg,K., Dmochowski,R., Time to onset of improvement in symptoms of overactive bladder using antimuscarinic treatment, BJU International, 97, 540-546, 2006	Reports on outcomes in 1st 7 days of a 12-week RCT
Sand,P.K., Davila,G.W., Lucente,V.R., Thomas,H., Caramelli,K.E., Hoel,G., Efficacy and safety of oxybutynin chloride topical gel for women with overactive bladder syndrome, American Journal of Obstetrics and Gynecology, 206, 168-6, 2012	Summary report
Sand,P.K., MacDiarmid,S.A., Thomas,H., Caramelli,K.E., Hoel,G., Effect of baseline symptom severity on continence improvement mediated by oxybutynin chloride topical gel, Open Access Journal of Urology, 3, 145-150, 2011	secondary publication of an included study 'Staskin et al., 2009)
Sand,P.K., Morrow,J.D., Bavendam,T., Creanga,D.L., Nitti,V.W., Efficacy and tolerability of fesoterodine in women with overactive bladder, International Urogynecology Journal, 20, 827-835, 2009	Secondary analysis of two RCT's
Serels,S.R., Toglia,M.R., Forero-Schwanhaeuser,S., He,W., Impact of solifenacin on diary-recorded and patient-reported urgency in patients with severe overactive bladder (OAB) symptoms, Current Medical Research and Opinion, 26, 2277-2285, 2010	Secondary publication of an included study 'Karram et al., 2009'
Speakman,M., Khullar,V., Mundy,A., Odeyemi,I., Bolodeoku,J., A cost-utility analysis of once daily solifenacin compared to tolterodine in the treatment of overactive bladder syndrome, Current Medical Research and Opinion, 24, 2173-2179, 2008	Health economic analysis
Staskin,D., Khullar,V., Michel,M.C., Morrow,J.D., Sun,F., Guan,Z., Dmochowski,R., Effects of voluntary dose escalation in a placebo-controlled, flexible-dose trial of fesoterodine in subjects with overactive bladder, Neurourology and Urodynamics, 30,	Secondary publication of an included study 'Dmochowski et al., 2010'

Study	Reason for exclusion
1480-1485, 2011	
Szonyi,G., Collas,D.M., Ding,Y.Y., Malone-Lee,J.G., Oxybutynin with bladder retraining for detrusor instability in elderly people: a randomized controlled trial, Age and Ageing, 24, 287-291, 1995	PICO not met - Participants received bladder training alongside oxybutynin
Toglia,M.R., Ostergard,D.R., Appell,R.A., Andoh,M., Fakhoury,A., Hussain,I.F., Solifenacin for overactive bladder: secondary analysis of data from VENUS based on baseline continence status, International Urogynecology Journal, 21, 847-854, 2010	Secondary publication of an included study 'Karram et al., 2009'
Toglia,M.R., Serels,S.R., Laramee,C., Karram,M.M., Nandy,I.M., Andoh,M., Seifeldin,R., Forero-Schwanhaeuser,S., Solifenacin for overactive bladder: patient-reported outcomes from a large placebo-controlled trial, Postgraduate Medicine, 121, 151-158, 2009	Secondary publication of an included study 'Karram et al., 2009'
Van Kerrebroeck,P.E.V., Kelleher,C.J., Coyne,K.S., Kopp,Z., Brodsky,M., Wang,J.T., Correlations among improvements in urgency urinary incontinence, health-related quality of life, and perception of bladder-related problems in incontinent subjects with overactive bladder treated with tolterodine or placebo, Health and Quality of Life Outcomes, Vol.7, pp.13, 2009., -, 2009	Secondary publication of an included study 'van Kerrebroeck et al., 2001'
Vardy,M.D., Mitcheson,H.D., Samuels,T.A., Forero-Schwanhaeuser,S., He,W., Efficacy of Solifenacin on Overactive Bladder Symptoms, Symptom Bother, and Other Patient-Reported Outcomes in Subjects With or Without Incontinence: A Post Hoc Analysis of Data From VIBRANT, Female Pelvic Medicine and Reconstructive Surgery, 17, 24-29, 2011	Secondary publication of an included study 'VIBRANT'
Versi,E., Appell,R., Mobley,D., Patton,W., Saltzstein,D., Dry mouth with conventional and controlled-release oxybutynin in urinary incontinence. The Ditropan XL Study Group, Obstetrics and GynecologyObstet.Gynecol., 95, 718-721, 2000	PICO not met - Participants were known responders to anti-muscarinics
Vijaya,G., Digesu,G.A., Derpapas,A., Hendricken,C., Fernando,R., Khullar,V., Antimuscarinic effects on current perception threshold: a prospective placebo control study, Neurourology and Urodynamics, 31, 75-79, 2012	Study does not report on UI related outcomes and duration <4 weeks
Wagg,A., Wyndaele,J.J., Sieber,P., Efficacy and tolerability of solifenacin in elderly subjects with overactive bladder syndrome: a pooled analysis, American Journal of Geriatric Pharmacotherapy, 4, 14-24, 2006	Pooled analysis
Wagg,Adrian, Khullar,Vik, Marschall-Kehrel,Daniela, Michel,Martin C., Oelke,Matthias, Darekar,Amanda, Bitoun,Caty E., Weinstein,David, Osterloh,Ian, Flexible-Dose	Study published after search cut-off date

Study	Reason for exclusion
Fesoterodine in Elderly Adults with Overactive Bladder: Results of the Randomized, Double-Blind, Placebo-Controlled Study of Fesoterodine in an Aging Population Trial, Journal of the American Geriatrics SocietyJ Am Geriatr Soc, 61, 185-193, 2013	
Wang,A.C., Chen,M.C., Kuo,W.Y., Lin,Y.H., Wang,Y.C., Lo,T.S., Urgency-free time interval as primary endpoint for evaluating the outcome of a randomized OAB treatment, International Urogynecology Journal, 20, 819-825, 2009	PICO not met - Starting dose of Oxybutynin IR (2.5 mg tid) is lower the recommended adult starting dose of 5mg bid/tid
Wang,A.C., Chih,S.Y., Chen,M.C., Comparison of electric stimulation and oxybutynin chloride in management of overactive bladder with special reference to urinary urgency: a randomized placebo-controlled trial, Urology, 68, 999-1004, 2006	PICO not met - Starting dose of Oxybutynin IR (2.5 mg tid)is lower the recommended adult starting dose of 5mg bid/tid
Wein,A.J., Khullar,V., Wang,J.T., Guan,Z., Achieving continence with antimuscarinic therapy for overactive bladder: effects of baseline incontinence severity and bladder diary duration, BJU International, 99, 360-363, 2007	Secondary publication of an included study 'van Kerrebroeck 2001'
Yokoyama,O., Yamaguchi,O., Kakizaki,H., Itoh,N., Yokota,T., Okada,H., Ishizuka,O., Ozono,S., Gotoh,M., Sugiyama,T., Seki,N., Yoshida,M., Yamada,S., Efficacy of solifenacin on nocturia in Japanese patients with overactive bladder: impact on sleep evaluated by bladder diary, Journal of Urology, 186, 170-174, 2011	Secondary publication of an included study 'Yamaguchi et al., 2007'
Zeegers,A., Kiesswetter,H., Kramer,A., Jonas,U., Conservative therapy of frequency, urgency and urge incontinence: a double blind clinical trial of flavoxate hydrochloride, oxybutinin chloride, emepronium bromide and placebo, World Journal of UrologyWorld J.Urol., 5, 57-61, 1987	PICO not met - Study does not provide data at time-points of interest
Zellner,M., Madersbacher,H., Palmtag,H., Stohrer,M., Bodeker,R.H., Study Group., Trospium chloride and oxybutynin hydrochloride in a german study of adults with urinary urge incontinence: results of a 12-week, multicenter, randomized, double-blind, parallel-group, flexible-dose noninferiority trial, Clinical Therapeutics, 31, 2519-2539, 2009	PICO not met - Starting dose of Trospium dose (15mg TID) is greater than the recommended adult starting dose of 20mg BID
Zinner,N., Noe,L., Rasouliyan,L., Marshall,T., Runken,M.C., Seifeldin,R., Impact of solifenacin on quality of life, medical care use, work productivity, and health utility in the elderly: an exploratory subgroup analysis, American Journal of Geriatric Pharmacotherapy, 7, 373-382, 2009	Health economic analysis
Zinner,N., Noe,L., Rasouliyan,L., Marshall,T., Seifeldin,R., Impact of solifenacin on resource utilization, work productivity and health utility in overactive bladder patients switching from tolterodine ER, Current Medical Research and Opinion, 24, 1583-1591,	Health economic analysis

Study	Reason for exclusion
2008	
Zinner,N., Susset,J., Gittelman,M., Arguinzoniz,M., Rekeda,L., Haab,F., Efficacy, tolerability and safety of darifenacin, an M(3) selective receptor antagonist: an investigation of warning time in patients with OAB.[Erratum appears in Int J Clin Pract. 2006 Jul;60(7):890], International Journal of Clinical Practice, 60, 119-126, 2006	PICO not met - Starting dose of Darifenacin (15mg QD) is greater than the recommmended adult starting dose of 7.5mg QD
Zinner,N.R., Mattiasson,A., Stanton,S.L., Efficacy, safety, and tolerability of extended-release once-daily tolterodine treatment for overactive bladder in older versus younger patients, Journal of the American Geriatrics SocietyJ.Am.Geriatr.Soc., 50, 799-807, 2002	Study is a secondary publication of an included study "Van Kerrebroeck et al., 2001"

What is the effectiveness of Botulinum toxin A (200U) when compared to placebo

Study	Reason for exclusion
Brubaker,L., Gousse,A., Sand,P., Thompson,C., Patel,V., Zhou,J., Jenkins,B., Sievert,K.D., Treatment satisfaction and goal attainment with onabotulinumtoxinA in patients with incontinence due to idiopathic OAB, International Urogynecology Journal, 23, 1017-1025, 2012	Secondary publication of an included study 'Dmochowski et al., 2010'
Brubaker,L., Kreder,K., Richter,H.E., Lavelle,J., Wei,J.T., Mahajan,S., Weber,A.M., Refractory urge urinary incontinence and botulinum A injection: The methods of the RUBI trial, Journal of Applied Research, 6, 260-271, 2006	Secondary publication of an included study "Brubaker et al., 2008"
Chapple,C.R., Dmochowski,R., Nitti,V., Chancellor,M., Everaert,K., Thompson,C.R., Daniell,G., Zhou,J., Haag-Molkenteller,C., Dose ranging phase 2 study of botox (onabotulinumtoxina) in idiopathic oab: Benefit risk assessment, European Urology, Supplements, , 62-, 2010	Conference abstract of an included study "Dmochowski 2010"
Cohen,B.L., Caruso,D.J., Kanagarajah,P., Gousse,A.E., Predictors of response to intradetrusor botulinum toxin-A injections in patients with idiopathic overactive bladder, Advances in Urology, 328364-, 2009	PICO not met - Study did not compare BoNT-A 200U with either placebo or BoNT-A 100U
Denys,P., Le,Normand L., Ghout,I., Costa,P., Chartier-Kastler,E., Grise,P., Hermieu,J.F., Amarenco,G., Karsenty,G., Saussine,C., Barbot,F., VESITOX study group, Efficacy and safety of low doses of onabotulinumtoxinA for the treatment of refractory idiopathic overactive bladder: a multicentre, double-blind, randomised, placebo-controlled dose-ranging study, European Urology, 61, 520-529, 2012	PICO not met - Study did not compare BoNT-A 200U with either placebo or BoNT-A 100U

Study	Reason for exclusion
Denys,P., Lenormand,L., Costa,P., Chartier-Kastler,E., Grise,P., Hermieu,J., Amarenco,G., Karsenty,G., Saussine,C., Barbot,F., Efficacy and safety of low doses of onabotulinumtoxina for the treatment of refractory idiopathic overactive bladder: A multicenter, double-blind, randomised, placebo controlled study, Neurourology and Urodynamics, 30, 924-926, 2011	Conference abstract
Dowson,C., Sahai,A., Khan,M.S., Dasgupta,P., Mcmahon,S., Botulinum toxin-a does not appear to alter the gene expression of neurotrophic factors and their receptors or Cox-1 & Cox-2, PGE2 synthase, PGI2 synthase in the urothelium of patients with idiopathic detrusor overactivity at 4 or 12 weeks following intra-detrusor administration, European Urology, Supplements, 9, 60-, 2010	Conference abstract
Dowson,C., Sahai,A., Khan,M.S., Dasgupta,P., Mcmahon,S.B., Intra-detrusor injections of botulinum toxin-a do not appear to alter the gene expression of neurotrophic factors in the urothelium of patients with idiopathic detrusor overactivity, Journal of Endourology, 24, A3-, 2010	Conference abstract
Dowson,C., Sahai,A., Watkins,J., Dasgupta,P., Khan,M.S., The safety and efficacy of botulinum toxin-A in the management of bladder oversensitivity: a randomised double-blind placebo-controlled trial, International Journal of Clinical Practice, 65, 698-704, 2011	PICO not met - Study compared NoNT-A 100U wiith placebo not with BoNT-A 200U
Dowson,C., Sahai,A., Watkins,J., Khan,M.S., Dasgupta,P., The safety and efficacy of botulinum toxin-A in the management of patients with bladder oversensitivity: A randomised placebo controlled trial, Journal of Endourology, 24, A204-A205, 2010	Conference abstract
Fowler,C., Auerbach,S., Ginsberg,D., Hale,D., Radziszewski,P., Rechberger,T., Kowalski,J., Zhou,J., Botulinum toxin a (BOTOX) demonstrates dose-dependent improvements in health-related quality-of-life measures in idiopathic overactive bladder, Journal of Urology, 181, 558-, 2009	Conference abstract
Fowler,C.J., Auerbach,S., Ginsberg,D., Hale,D., Radziszewski,P., Rechberger,T., Patel,V.D., Zhou,J., Thompson,C., Kowalski,J.W., OnabotulinumtoxinA Improves Health-Related Quality of Life in Patients With Urinary Incontinence Due to Idiopathic Overactive Bladder: A 36-Week, Double-Blind, Placebo-Controlled, Randomized, Dose-Ranging Trial, European Urology, 62, 148-157, 2012	Follow-up of an included study "Dmochowski et al., 2010"
Jabs,C., Carleton,E., Efficacy of botulinum toxin a intradetrusor injections for nonneurogenic urinary urge incontinence - A randomized double-blind control trial, Neurourology and Urodynamics, 29, 1228-1229, 2010	Conference abstract

Study	Reason for exclusion
Kuo,H.C., Will suburothelial injection of small dose of botulinum A toxin have similar therapeutic effects and less adverse events for refractory detrusor overactivity?, Urology, 68, 993-997, 2006	PICO not met - > 50% of participants had neurogenic detrusor overactivity but no mention of stratifying for diagnosis at randomization
Kuo,H.C., Bladder base/trigone injection is safe and as effective as bladder body injection of onabotulinumtoxinA for idiopathic detrusor overactivity refractory to antimuscarinics, Neurourology and Urodynamics, 30, 1242-1248, 2011	PICO not met - Study compared different injection sites not different doses
Manecksha,R.P., Cullen,I.M., Ahmad,S., McNeill,G., Flynn,R., McDermott,T.E.D., Grainger,R., Thornhill,J.A., Prospective randomised controlled trial comparing trigone-sparing versus trigone-including intradetrusor injection of abobotulinumtoxinA for refractory idiopathic detrusor overactivity, European Urology, 61, 928-935, 2012	PICO not met - Study compared different injection sites
Rovner,E., Kennelly,M., Schulte-Baukloh,H., Zhou,J., Haag-Molkenteller,C., Dasgupta,P., Urodynamic results and clinical outcomes with intradetrusor injections of onabotulinumtoxinA in a randomized, placebo-controlled dose-finding study in idiopathic overactive bladder, Neurourology and Urodynamics, 30, 556-562, 2011	Secondary publication of an included study "Dmochowski 2010"
Rovner,E., Kennelly,M., Schulte-Baukloh,H., Zhou,J., Molkenteller,C.H., Dasgupta,P., Urodynamic RESULTS and clinical outcomes with intravesical botulinum toxin a (onabotuliumtoxina) in a randomized, placebo controlled dose-finding Study in idiopathic overactive bladder, Journal of Urology, 183, e591-e592, 2010	Conference abstract of an included study "Dmochowski 2010"
Sahai,A., Dowson,C., Khan,M.S., Dasgupta,P., Improvement in quality of life after botulinum toxin-A injections for idiopathic detrusor overactivity: results from a randomized double-blind placebo-controlled trial, BJU International, 103, 1509-1515, 2009	Secondary publication of an included study "Sahai 2007"
Tincello,D.G., Slack,M.C., Kenyon,S., Mayne,C.J., Toozs-Hobson,P.M., Abrams,K.R., Taylor,D.J., Botulinum toxin-A for refractory detrusor overactivity in women: A 240 patient randomised placebo controlled trial, European Urology, Supplements, 10, 191-, 2011	Conference abstract of an included study 'Tincello et al. 2012'
Visco,A.G., Brubaker,L., Richter,H.E., Nygaard,I., Paraiso,M.F., Menefee,S.A., Schaffer,J., Wei,J., Chai,T., Janz,N., Spino,C., Meikle,S., Pelvic Floor,Disorders Network, Anticholinergic versus botulinum toxin A comparison trial for the treatment of bothersome urge urinary incontinence: ABC trial, Contemporary Clinical Trials, 33, 184-196, 2012	PICO not met - Study does not compare BoNT-A 100U with placebo or 200U

What is the effectiveness of Botulinum toxin A (200U) when compared to Botulinum toxin A (100U)

Study	Reason for exclusion
Brubaker,L., Gousse,A., Sand,P., Thompson,C., Patel,V., Zhou,J., Jenkins,B., Sievert,K.D., Treatment satisfaction and goal attainment with onabotulinumtoxinA in patients with incontinence due to idiopathic OAB, International Urogynecology Journal, 23, 1017-1025, 2012	Secondary publication of an included study 'Dmochowski et al., 2010'
Brubaker,L., Kreder,K., Richter,H.E., Lavelle,J., Wei,J.T., Mahajan,S., Weber,A.M., Refractory urge urinary incontinence and botulinum A injection: The methods of the RUBI trial, Journal of Applied Research, 6, 260-271, 2006	Secondary publication of an included study "Brubaker et al., 2008"
Chapple,C.R., Dmochowski,R., Nitti,V., Chancellor,M., Everaert,K., Thompson,C.R., Daniell,G., Zhou,J., Haag-Molkenteller,C., Dose ranging phase 2 study of botox (onabotulinumtoxina) in idiopathic oab: Benefit risk assessment, European Urology, Supplements, , 62-, 2010	Conference abstract of an included study "Dmochowski 2010"
Cohen,B.L., Caruso,D.J., Kanagarajah,P., Gousse,A.E., Predictors of response to intradetrusor botulinum toxin-A injections in patients with idiopathic overactive bladder, Advances in Urology, 328364-, 2009	PICO not met - Study did not compare BoNT-A 200U with either placebo or BoNT-A 100U
Denys,P., Le,Normand L., Ghout,I., Costa,P., Chartier-Kastler,E., Grise,P., Hermieu,J.F., Amarenco,G., Karsenty,G., Saussine,C., Barbot,F., VESITOX study group, Efficacy and safety of low doses of onabotulinumtoxinA for the treatment of refractory idiopathic overactive bladder: a multicentre, double-blind, randomised, placebo-controlled dose-ranging study, European Urology, 61, 520-529, 2012	PICO not met - Study did not compare BoNT-A 200U with placebo nor with BoNT-A 100U
Denys,P., Lenormand,L., Costa,P., Chartier-Kastler,E., Grise,P., Hermieu,J., Amarenco,G., Karsenty,G., Saussine,C., Barbot,F., Efficacy and safety of low doses of onabotulinumtoxina for the treatment of refractory idiopathic overactive bladder: A multicenter, double-blind, randomised, placebo controlled study, Neurourology and Urodynamics, 30, 924-926, 2011	Conference abstract
Dowson,C., Sahai,A., Khan,M.S., Dasgupta,P., Mcmahon,S., Botulinum toxin-a does not appear to alter the gene expression of neurotrophic factors and their receptors or Cox-1 & Cox-2, PGE2 synthase, PGI2 synthase in the urothelium of patients with idiopathic detrusor overactivity at 4 or 12 weeks following intra-detrusor administration, European Urology, Supplements, 9, 60-, 2010	Conference abstract
Dowson,C., Sahai,A., Khan,M.S., Dasgupta,P., Mcmahon,S.B., Intra-detrusor injections of botulinum toxin-a do not appear to alter the gene expression of neurotrophic factors in the urothelium of patients with idiopathic detrusor overactivity,	Conference abstract

Study	Reason for exclusion
Journal of Endourology, 24, A3-, 2010	
Dowson,C., Sahai,A., Watkins,J., Dasgupta,P., Khan,M.S., The safety and efficacy of botulinum toxin-A in the management of bladder oversensitivity: a randomised double-blind placebo-controlled trial, International Journal of Clinical Practice, 65, 698-704, 2011	PICO not met - Study did not compare BoNT-A 200U with either placebo or with BoNT-A 100U
Dowson,C., Sahai,A., Watkins,J., Khan,M.S., Dasgupta,P., The safety and efficacy of botulinum toxin-A in the management of patients with bladder oversensitivity: A randomised placebo controlled trial, Journal of Endourology, 24, A204-A205, 2010	Conference abstract
Fowler,C., Auerbach,S., Ginsberg,D., Hale,D., Radziszewski,P., Rechberger,T., Kowalski,J., Zhou,J., Botulinum toxin a (BOTOX) demonstrates dose-dependent improvements in health-related quality-of-life measures in idiopathic overactive bladder, Journal of Urology, 181, 558-, 2009	Conference abstract
Fowler,C.J., Auerbach,S., Ginsberg,D., Hale,D., Radziszewski,P., Rechberger,T., Patel,V.D., Zhou,J., Thompson,C., Kowalski,J.W., OnabotulinumtoxinA Improves Health-Related Quality of Life in Patients With Urinary Incontinence Due to Idiopathic Overactive Bladder: A 36-Week, Double-Blind, Placebo-Controlled, Randomized, Dose-Ranging Trial, European Urology, 62, 148-157, 2012	Follow-up of an included study "Dmochowski et al., 2010"
Jabs,C., Carleton,E., Efficacy of botulinum toxin a intradetrusor injections for nonneurogenic urinary urge incontinence - A randomized double-blind control trial, Neurourology and Urodynamics, 29, 1228-1229, 2010	Conference abstract
Kuo,H.C., Will suburothelial injection of small dose of botulinum A toxin have similar therapeutic effects and less adverse events for refractory detrusor overactivity?, Urology, 68, 993-997, 2006	PICO not met - > 50% of participants had neurogenic detrusor overactivity but no mention of stratifiying for diagnosis at randomization
Kuo,H.C., Bladder base/trigone injection is safe and as effective as bladder body injection of onabotulinumtoxinA for idiopathic detrusor overactivity refractory to antimuscarinics, Neurourology and Urodynamics, 30, 1242-1248, 2011	PICO not met - Study compared different injection sites not different doses
Manecksha,R.P., Cullen,I.M., Ahmad,S., McNeill,G., Flynn,R., McDermott,T.E.D., Grainger,R., Thornhill,J.A., Prospective randomised controlled trial comparing trigone-sparing versus trigone-including intradetrusor injection of abobotulinumtoxinA for refractory idiopathic detrusor overactivity, European Urology, 61, 928-935, 2012	PICO not met - Study compared different injection sites
Rovner,E., Kennelly,M., Schulte-Baukloh,H., Zhou,J., Haag-Molkenteller,C., Dasgupta,P., Urodynamic results and clinical outcomes with intradetrusor injections of	Secondary publication of an included study "Dmochowski 2010"

Study	Reason for exclusion
onabotulinumtoxinA in a randomized, placebo-controlled dose-finding study in idiopathic overactive bladder, Neurourology and Urodynamics, 30, 556-562, 2011	
Rovner,E., Kennelly,M., Schulte-Baukloh,H., Zhou,J., Molkenteller,C.H., Dasgupta,P., Urodynamic RESULTS and clinical outcomes with intravesical botulinum toxin a (onabotuliumtoxina) in a randomized, placebo controlled dose-finding Study in idiopathic overactive bladder, Journal of Urology, 183, e591-e592, 2010	Conference sbstract of an included study "Dmochowski 2010"
Sahai,A., Dowson,C., Khan,M.S., Dasgupta,P., Improvement in quality of life after botulinum toxin-A injections for idiopathic detrusor overactivity: results from a randomized double-blind placebo-controlled trial, BJU International, 103, 1509-1515, 2009	Secondary publication of an included study "Sahai 2007"
Tincello,D.G., Slack,M.C., Kenyon,S., Mayne,C.J., Toozs-Hobson,P.M., Abrams,K.R., Taylor,D.J., Botulinum toxin-A for refractory detrusor overactivity in women: A 240 patient randomised placebo controlled trial, European Urology, Supplements, 10, 191-, 2011	Conference sbstract of an included study 'Tincello et al. 2012'
Visco,A.G., Brubaker,L., Richter,H.E., Nygaard,I., Paraiso,M.F., Menefee,S.A., Schaffer,J., Wei,J., Chai,T., Janz,N., Spino,C., Meikle,S., Pelvic Floor,Disorders Network, Anticholinergic versus botulinum toxin A comparison trial for the treatment of bothersome urge urinary incontinence: ABC trial, Contemporary Clinical Trials, 33, 184-196, 2012	PICO not met - Study does not compare BoNT-A 100U with placebo nor with BoNT-A 200U

What is the effectiveness of Botulinum toxin A (100U) when compared to placebo

Study	Reason for exclusion
Brubaker,L., Gousse,A., Sand,P., Thompson,C., Patel,V., Zhou,J., Jenkins,B., Sievert,K.D., Treatment satisfaction and goal attainment with onabotulinumtoxinA in patients with incontinence due to idiopathic OAB, International Urogynecology Journal, 23, 1017-1025, 2012	Secondary publication of an included study 'Dmochowski et al., 2010'
Brubaker,L., Kreder,K., Richter,H.E., Lavelle,J., Wei,J.T., Mahajan,S., Weber,A.M., Refractory urge urinary incontinence and botulinum A injection: The methods of the RUBI trial, Journal of Applied Research, 6, 260-271, 2006	Secondary publication of an included study "Brubaker et al., 2008"
Chapple,C.R., Dmochowski,R., Nitti,V., Chancellor,M., Everaert,K., Thompson,C.R., Daniell,G., Zhou,J., Haag-Molkenteller,C., Dose ranging phase 2 study of botox (onabotulinumtoxina) in idiopathic oab: Benefit risk assessment, European Urology,	Conference abstract of an included study "Dmochowski 2010"

Study	Reason for exclusion
Supplements, , 62-, 2010	
Cohen,B.L., Caruso,D.J., Kanagarajah,P., Gousse,A.E., Predictors of response to intradetrusor botulinum toxin-A injections in patients with idiopathic overactive bladder, Advances in Urology, 328364-, 2009	PICO not met - Study did not compare BoNT-A 200U with either placebo or BoNT-A 100U
Denys,P., Lenormand,L., Costa,P., Chartier-Kastler,E., Grise,P., Hermieu,J., Amarenco,G., Karsenty,G., Saussine,C., Barbot,F., Efficacy and safety of low doses of onabotulinumtoxina for the treatment of refractory idiopathic overactive bladder: A multicenter, double-blind, randomised, placebo controlled study, Neurourology and Urodynamics, 30, 924-926, 2011	Conference abstract
Dowson,C., Sahai,A., Khan,M.S., Dasgupta,P., Mcmahon,S., Botulinum toxin-a does not appear to alter the gene expression of neurotrophic factors and their receptors or Cox-1 & Cox-2, PGE2 synthase, PGI2 synthase in the urothelium of patients with idiopathic detrusor overactivity at 4 or 12 weeks following intra-detrusor administration, European Urology, Supplements, 9, 60-, 2010	Conference abstract
Dowson,C., Sahai,A., Khan,M.S., Dasgupta,P., Mcmahon,S.B., Intra-detrusor injections of botulinum toxin-a do not appear to alter the gene expression of neurotrophic factors in the urothelium of patients with idiopathic detrusor overactivity, Journal of Endourology, 24, A3-, 2010	Conference abstract
Dowson,C., Sahai,A., Watkins,J., Khan,M.S., Dasgupta,P., The safety and efficacy of botulinum toxin-A in the management of patients with bladder oversensitivity: A randomised placebo controlled trial, Journal of Endourology, 24, A204-A205, 2010	Conference abstract
Fowler,C., Auerbach,S., Ginsberg,D., Hale,D., Radziszewski,P., Rechberger,T., Kowalski,J., Zhou,J., Botulinum toxin a (BOTOX) demonstrates dose-dependent improvements in health-related quality-of-life measures in idiopathic overactive bladder, Journal of Urology, 181, 558-, 2009	Conference abstract
Fowler,C.J., Auerbach,S., Ginsberg,D., Hale,D., Radziszewski,P., Rechberger,T., Patel,V.D., Zhou,J., Thompson,C., Kowalski,J.W., OnabotulinumtoxinA Improves Health-Related Quality of Life in Patients With Urinary Incontinence Due to Idiopathic Overactive Bladder: A 36-Week, Double-Blind, Placebo-Controlled, Randomized, Dose-Ranging Trial, European Urology, 62, 148-157, 2012	Follow-up of an included study "Dmochowski et al., 2010"
Kuo,H.C., Will suburothelial injection of small dose of botulinum A toxin have similar therapeutic effects and less adverse events for refractory detrusor overactivity?,	PICO not met - > 50% of participants had neurogenic detrusor overactivity but no mention of stratifying for diagnosis at randomization

Study	Reason for exclusion
Urology, 68, 993-997, 2006	
Kuo,H.C., Bladder base/trigone injection is safe and as effective as bladder body injection of onabotulinumtoxinA for idiopathic detrusor overactivity refractory to antimuscarinics, Neurourology and Urodynamics, 30, 1242-1248, 2011	PICO not met - Study compared different injection sites not different doses
Manecksha,R.P., Cullen,I.M., Ahmad,S., McNeill,G., Flynn,R., McDermott,T.E.D., Grainger,R., Thornhill,J.A., Prospective randomised controlled trial comparing trigone-sparing versus trigone-including intradetrusor injection of abobotulinumtoxinA for refractory idiopathic detrusor overactivity, European Urology, 61, 928-935, 2012	PICO not met - Study compared different injection sites
Nitti,Victor W., Dmochowski,Roger, Herschorn,Sender, Sand,Peter, Thompson,Catherine, Nardo,Christopher, Yan,Xiaohong, Haag-Molkenteller,Cornelia, OnabotulinumtoxinA for the Treatment of Patients with Overactive Bladder and Urinary Incontinence: Results of a Phase 3, Randomized, Placebo Controlled Trial, The Journal of urologyJ Urol, -, 2012	Study published after final search date
Rovner,E., Kennelly,M., Schulte-Baukloh,H., Zhou,J., Haag-Molkenteller,C., Dasgupta,P., Urodynamic results and clinical outcomes with intradetrusor injections of onabotulinumtoxinA in a randomized, placebo-controlled dose-finding study in idiopathic overactive bladder, Neurourology and Urodynamics, 30, 556-562, 2011	Secondary publication of an included study "Dmochowski 2010"
Rovner,E., Kennelly,M., Schulte-Baukloh,H., Zhou,J., Molkenteller,C.H., Dasgupta,P., Urodynamic RESULTS and clinical outcomes with intravesical botulinum toxin a (onabotuliumtoxina) in a randomized, placebo controlled dose-finding Study in idiopathic overactive bladder, Journal of Urology, 183, e591-e592, 2010	Conference abstract of an included study "Dmochowski 2010"
Sahai,A., Dowson,C., Khan,M.S., Dasgupta,P., Improvement in quality of life after botulinum toxin-A injections for idiopathic detrusor overactivity: results from a randomized double-blind placebo-controlled trial, BJU International, 103, 1509-1515, 2009	Secondary publication of an included study "Sahai 2007"
Tincello,D.G., Slack,M.C., Kenyon,S., Mayne,C.J., Toozs-Hobson,P.M., Abrams,K.R., Taylor,D.J., Botulinum toxin-A for refractory detrusor overactivity in women: A 240 patient randomised placebo controlled trial, European Urology, Supplements, 10, 191-, 2011	Conference abstract of an included study 'Tincello et al. 2012'
Visco,A.G., Brubaker,L., Richter,H.E., Nygaard,I., Paraiso,M.F., Menefee,S.A., Schaffer,J., Wei,J., Chai,T., Janz,N., Spino,C., Meikle,S., Pelvic Floor,Disorders Network, Anticholinergic versus botulinum toxin A comparison trial for the treatment of bothersome urge urinary incontinence: ABC trial, Contemporary Clinical Trials, 33,	PICO not met - Study does not compare BoNT-A 100U with placebo or 200U

Study	Reason for exclusion
184-196, 2012	

What is the comparative effectiveness of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure?

Study	Reason for exclusion
Abdel-Fattah,M., Mostafa,A., Familusi,A., Ramsay,I., N'dow,J., Prospective randomised controlled trial of transobturator tapes in management of urodynamic stress incontinence in women: 3-year outcomes from the evaluation of transobturator tapes study, European Urology, , 843-851, 2012	Secondary publication of an included study 'Abdel-Fattah et al., 2010'
Abdel-Fattah,M., Hasafa,Z., Mostafa,A., Correlation of three validated questionnaires for assessment of outcomes following surgical treatment of stress urinary incontinence in women, European Journal of Obstetrics Gynecology and Reproductive Biology, 157, 226-229, 2011	Secondary publication of an included study 'Abdel-Fattah et al., 2010'
Abdel-Fattah,M., Mostafa,A., Young,D., Ramsay,I., Evaluation of transobturator tension-free vaginal tapes in the management of women with mixed urinary incontinence: One-year outcomes, American Journal of Obstetrics and Gynecology, 205, 150-150, 2011	Secondary publication of an included study 'Abdel-Fattah et al., 2010'
Abdel-Fattah,M., Ramsay,I., Pringle,S., Hardwick,C., Ali,H., Evaluation of transobturator tapes (E-TOT) study: randomised prospective single-blinded study comparing inside-out vs. outside-in transobturator tapes in management of urodynamic stress incontinence: short term outcomes, European Journal of Obstetrics, Gynecology, and Reproductive Biology, 149, 106-111, 2010	Secondary publication of an included study 'Abdel-Fattah et al., 2010'
Abdel-Fattah,M., Ramsay,I., Pringle,S., Hardwick,C., Ali,H., Young,D., Mostafa,A., Evaluation of transobturator tension-free vaginal tapes in management of women with recurrent stress urinary incontinence, Urology, 77, 1070-1075, 2011	Secondary publication of an included study 'Abdel-Fattah et al., 2010'
Albo,M.E., Steers,W., Diokno,A., Khandwala,S., Brubaker,L., Fitzgerald,M.P., Richter,H.E., Lloyd,L.K., Albo,M., Nager,C., Chai,T., Johnson,H.W., Zyczynski,H.M., Leng,W., Zimmern,P., Lemack,G., Kraus,S., Rozanski,T., Norton,P., Kerr,L., Tennstedt,S., Stoddard,A., Chang,D., Kusek,J.W., Nyberg,L.M., Weber,A.M., The trial of mid-urethral slings (TOMUS): Design and methodology, Journal of Applied Research, 8, 1-13, 2008	Secondary publication of an excluded study 'Richter et al., 2010'

Study	Reason for exclusion
Amat,I.Tardiu, Martinez,Franco E., Lailla Vicens,J.M., Contasure-Needleless compared with transobturator-TVT for the treatment of stress urinary incontinence, International Urogynecology Journal, 22, 827-833, 2011	Not an RCT
Angioli,R., Plotti,F., Muzii,L., Montera,R., Panici,P.B., Zullo,M.A., Tension-free vaginal tape versus transobturator suburethral tape: Five-year follow-up results of a prospective, randomised trial, European Urology, 58, 671-677, 2010	Secondary publication of an included study 'Zullo et al., 2007'
Barber,M.D., Kleeman,S., Karram,M.M., Paraiso,M.F.R., Ellerkmann,M., Vasavada,S., Walters,M.D., Risk factors associated with failure 1 year after retropubic or transobturator midurethral slings, American Journal of Obstetrics and Gynecology, 199, 666-666, 2008	Secondary report of an included study 'Barber et al., 2008'
Botros,S.M., Miller,J.J.R., Goldberg,R.P., Gandhi,S., Akl,M., Beaumont,J.L., Sand,P.K., Detrusor overactivity and urge urinary incontinence following trans obturator versus midurethral slings, Neurourology and Urodynamics, 26, 42-45, 2007	Not an RCT
Brubaker,L., Norton,P.A., Albo,M.E., Chai,T.C., Dandreo,K.J., Lloyd,K.L., Lowder,J.L., Sirls,L.T., Lemack,G.E., Arisco,A.M., Xu,Y., Kusek,J.W., Urinary Inc, Adverse events over two years after retropubic or transobturator midurethral sling surgery: findings from the Trial of Midurethral Slings (TOMUS) study, American journal of obstetrics and gynecology, 205, 498-6, 2011	Secondary of an excluded study 'Richter et al., 2010'
Castillo-Pino,E., Sasson,A., Pons,J.E., Comparison of retropubic and transobturator tension-free vaginal implants for the treatment of stress urinary incontinence, International Journal of Gynaecology and Obstetrics, 110, 23-26, 2010	Not an RCT
Chen,C.C., Rooney,C.M., Paraiso,M.F., Kleeman,S.D., Walters,M.D., Karram,M.M., Barber,M.D., Leak point pressure does not correlate with incontinence severity or bother in women undergoing surgery for urodynamic stress incontinence, International Urogynecology Journal, 19, 1193-1198, 2008	PICO not met - Study does not report outcomes of interest
Chene,G., Cotte,B., Tardieu,A.S., Savary,D., Mansoor,A., Clinical and ultrasonographic correlations following three surgical anti-incontinence procedures (TOT, TVT and TVT-O), International Urogynecology Journal, 19, 1125-1131, 2008	Not an RCT
Costantini,E., Lazzeri,M., Giannantoni,A., Bini,V., Vianello,A., Kocjancic,E., Porena,M., Preoperative Valsalva leak point pressure may not predict outcome of mid-urethral slings. Analysis from a randomized controlled trial of retropubic versus transobturator mid-urethral slings, International Braz J Urol, 34, 73-81, 2008	Secondary report of an included study 'Porena et al., 2007'

Study	Reason for exclusion
de,Leval J., Thomas,A., Waltregny,D., The original versus a modified inside-out transobturator procedure: 1-year results of a prospective randomized trial, International Urogynecology Journal, 22, 145-156, 2011	PICO not met - Study does not compare procedures of interest
de,Tayrac R., Deffieux,X., Resten,A., Doumerc,S., Jouffroy,C., Fernandez,H., A transvaginal ultrasound study comparing transobturator tape and tension-free vaginal tape after surgical treatment of female stress urinary incontinence, International Urogynecology Journal, 17, 466-471, 2006	Not an RCT
Drahoradova,P., Martan,A., Svabik,K., Zvara,K., Otava,M., Masata,J., Longitudinal trends with improvement in quality of life after TVT, TVT O and Burch colposuspension procedures, Medical Science Monitor, 17, CR67-CR72, 2011	Not an RCT
Falkert,A., Seelbach-Gobel,B., TVT versus TOT for surgical treatment of female stress urinary incontinence, International Journal of Gynaecology and Obstetrics, 96, 40-41, 2007	Not an RCT
Frick,A.C., Ridgeway,B., Ellerkmann,M., Karram,M.M., Paraiso,M.F., Walters,M.D., Barber,M.D., Comparison of responsiveness of validated outcome measures after surgery for stress urinary incontinence, Journal of Urology, 184, 2013-2017, 2010	Secondary report of an included study 'Barber et al., 2008'
Hota,L.S., Hanaway,K.J., Hacker,M.R., Disciullo,A.J., Elkadry,E., Ferzandi,T., Dramitinos,P., Shapiro,A., Rosenblatt,P.L., TVT-secur (Hammock) versus TVT-obturator: A randomized trial of suburethral sling operative procedures, Journal of Pelvic Medicine and Surgery, 16, S87-October, 2010	Conference abstract
Houwert,R.M., Renes-Zijl,C., Vos,M.C., Vervest,H.A., TVT-O versus Monarc after a 2-4-year follow-up: a prospective comparative study, International Urogynecology Journal, 20, 1327-1333, 2009	Not an RCT
Hsiao,S.M., Chang,T.C., Chen,C.H., Lin,H.H., Sequential comparisons of postoperative urodynamic changes between retropubic and transobturator midurethral tape procedures, World Journal of Urology, 26, 643-648, 2008	Not an RCT
Hsiao,S.M., Chang,T.C., Lin,H.H., Risk factors affecting cure after mid-urethral tape procedure for female urodynamic stress incontinence: comparison of retropubic and transobturator routes, Urology, 73, 981-986, 2009	Not an RCT
Jeon,M.J., Chung,D.J., Park,J.H., Kim,S.K., Kim,J.W., Bai,S.W., Surgical therapeutic index of tension-free vaginal tape and transobturator tape for stress urinary incontinence, Gynecologic and Obstetric Investigation, 65, 41-46, 2008	Not an RCT

Study	Reason for exclusion
Jeong,M.Y., Kim,S.J., Kim,H.S., Koh,J.S., Kim,J.C., Comparison of efficacy and satisfaction between the TVT-SECUR and MONARC procedures for the treatment of female stress urinary incontinence, Korean Journal of Urology, 51, 767-770, 2010	Not an RCT
Joo,Y.M., Choe,J.H., Seo,J.T., One-year surgical outcomes and quality of life after minimally invasive sling procedures for the treatment of female stress urinary incontinence: TVT SECUR vs. CureMesh, Korean Journal of Urology, 51, 337-343, 2010	PICO not met - Study does not compare different procedures of interest
Kim,J.J., Lee,Y.S., Lee,K.S., Randomized comparative study of the U- and H-type approaches of the TVT-secur procedure for the treatment of female stress urinary incontinence: One-year follow-up, Korean Journal of Urology, 51, 250-256, 2010	PICO not met - Study does not compare different procedures of interest
Lan,Z., Jinghe,L., Wenyan,W., TVT and TVT-O: A comparative randomized study of these operative procedures for the treatment of severe urinary stress incontinence, International Journal of Gynecology and Obstetrics, 107, S597-, 2009	Conference abstract
Lee,K.S., Lee,Y.S., Seo,J.T., Na,Y.G., Choo,M.S., Kim,J.C., Seo,J.H., Yoon,J.M., Lee,J.G., Kim,D.Y., Yoo,E.S., Min,K.S., Hong,J.Y., Lee,J.Z., A prospective multicenter randomized comparative study between the U- and H-type methods of the TVT SECUR procedure for the treatment of female stress urinary incontinence: 1-year follow-up, European Urology, 57, 973-979, 2010	PICO not met - Study does not compare different procedures of interest
Liapis,A., Bakas,P., Creatsas,G., Comparison of the TVT SECUR System "hammock" and "U" tape positions for management of stress urinary incontinence, International Journal of Gynaecology and Obstetrics, 111, 233-236, 2010	Not an RCT
Liapis,A., Bakas,P., Creatsas,G., Monarc vs TVT-O for the treatment of primary stress incontinence: a randomized study, International Urogynecology Journal, 19, 185-190, 2008	Not an RCT
Lier,D., Ross,S., Tang,S., Robert,M., Jacobs,P., Trans-obturator tape compared with tension-free vaginal tape in the surgical treatment of stress urinary incontinence: A cost utility analysis, BJOG: An International Journal of Obstetrics and Gynaecology, 118, 550-556, 2011	PICO not met - Study provides a cost utility analysis and does not report outcomes of interest
Masata,J., Svabik,K., Hubka,P., Zvara,K., El,HaddadR, Drahoradova,P., Martan,A., Is the fixation of single incision tape (TVT-S) as good as a transobturator tape (TVT-O)? An ultrasound study, results from randomized trial, Neurourology and Urodynamics, 31, 731-733, 2012	Conference abstract

Study	Reason for exclusion
Meschia,M., Pifarotti,P., Bernasconi,F., Magatti,F., Vigano,R., Bertozzi,R., Barbacini,P., Tension-free vaginal tape (TVT) and intravaginal slingplasty (IVS) for stress urinary incontinence: a multicenter randomized trial, American Journal of Obstetrics and Gynecology, 195, 1338-1342, 2006	PICO not met - Study does not compare procedures of interest
Meyer,S., Achtari,C., A comparative study of transvaginal tape, transobturator tape outside-in, and transvaginal tape-obturator inside-out surgical procedures in the treatment of stress urinary incontinence, Journal of Pelvic Medicine and Surgery, 14, 173-177, 2008	Not an RCT
Mourtzinos,A., Maher,M.G., Raz,S., Transobturator versus retropubic suburethral tapes for stress urinary incontinence, Nature Clinical Practice Urology, 3, 62-63, 2006	Not an RCT
Murphy,M., Raalte,H., Mercurio,E., Haff,R., Wiseman,B., Lucente,V.R., Incontinence-related quality of life and sexual function following the tension-free vaginal tape versus the "inside - Out" tension-free vaginal tape obturator, International urogynecology journal and pelvic floor dysfunction, 19, 481-487, 2008	Not an RCT
Nager,C.W., Sirls,L., Litman,H.J., Richter,H., Nygaard,I., Chai,T., Kraus,S., Zyczynski,H., Kenton,K., Huang,L., Kusek,J., Lemack,G., Baseline urodynamic predictors of treatment failure 1 year after mid urethral sling surgery, Journal of Urology, 186, 597-603, 2011	Secondary publication of an excluded study 'Richter et al., 2010'
Neuman,M., Friedman,B., Stein,A., Sidi,A.A., Tsivian,A., A short-term follow-up comparison of two trans-obturator tape procedures, Gynecological Surgery, 4, 175-178, 2007	Not an RCT
Pace,G., Vicentini,C., Female sexual function evaluation of the tension-free vaginal tape (TVT) and transobturator suburethral tape (TOT) incontinence surgery: results of a prospective study, Journal of Sexual Medicine, 5, 387-393, 2008	Not an RCT
Paick,J.S., Oh,S.J., Kim,S.W., Ku,J.H., Tension-free vaginal tape, suprapubic arc sling, and transobturator tape in the treatment of mixed urinary incontinence in women, International Urogynecology Journal, 19, 123-129, 2008	Not an RCT
Palomba,S., Oppedisano,R., Torella,M., Falbo,A., Maiorana,A., Materazzo,C., Tartaglia,E., Tolino,A., Mastrantonio,P., Alio,L., Colacurci,N., Zullo,F., A randomized controlled trial comparing three vaginal kits of single-incision mini-slings for stress urinary incontinence: Surgical data, European Journal of Obstetrics Gynecology and Reproductive Biology, 163, 108-112, 2012	PICO not met - Study does not compare different procedures

Study	Reason for exclusion
Palva,K., Nilsson,C.G., Prevalence of urinary urgency symptoms decreases by mid-urethral sling procedures for treatment of stress incontinence, International urogynecology journal and pelvic floor dysfunction, 22, 1241-1247, 2011	Secondary publication of an included study 'Palva et al., 2010'
Palva,K., Rinne,K., Aukee,P., Kivela,A., Laurikainen,E., Takala,T., Valpas,A., Nilsson,C.G., A randomized trial comparing tension-free vaginal tape with tension-free vaginal tape-obturator: 36-Month results, International urogynecology journal and pelvic floor dysfunction, 21, 1049-1055, 2010	Secondary publication of an included study 'Laurikainen et al., 2008'
Park,Y.J., Kim,D.Y., Randomized Controlled Study of MONARC[REGISTERED] vs. Tension-free Vaginal Tape Obturator (TVT-O[REGISTERED]) in the Treatment of Female Urinary Incontinence: Comparison of 3-Year Cure Rates, Korean Journal of Urology, 53, 258-262, 2012	Not an RCT
Prien-Larsen,J.C., Hemmingsen,L., Long-term outcomes of TVT and IVS operations for treatment of female stress urinary incontinence: monofilament vs. multifilament polypropylene tape, International Urogynecology Journal, 20, 703-709, 2009	Not an RCT
Rechberger,T., Futyma,K., Jankiewicz,K., Adamiak,A., Bogusiewicz,M., Bartuzi,A., Miota,P., Skorupski,P., Tomaszewski,J., Tape fixation: An important surgical step to improve success rate of anti-incontinence surgery, Journal of Urology, 186, 180-184, 2011	PICO not met - Study does not compare interventions of interest
Rechberger,T., Futyma,K., Jankiewicz,K., Adamiak,A., Skorupski,P., The clinical effectiveness of retropubic (IVS-02) and transobturator (IVS-04) midurethral slings: randomized trial, European Urology, 56, 24-30, 2009	PICO not met - Study does not compare interventions of interest
Richter,H.E., Albo,M.E., Zyczynski,H.M., Kenton,K., Norton,P.A., Sirls,L.T., Kraus,S.R., Chai,T.C., Lemack,G.E., Dandreo,K.J., Varner,R.E., Menefee,S., Ghetti,C., Brubaker,L., Nygaard,I., Khandwala,S., Rozanski,T.A., Johnson,H., Schaffer,J., Stoddard,A.M., Holley,R.L., Nager,C.W., Moalli,P., Mueller,E., Arisco,A.M., Corton,M., Tennstedt,S., Chang,T.D., Gormley,E.A., Litman,H.J., Retropubic versus Transobturator Midurethral Slings for Stress Incontinence, New England Journal of Medicine, 362, 2066-2076, 2010	PICO not met - Control group received either transobturator "inside-out" or transobturator "inside-out" but results are not presented separately
Rinne,K., Laurikainen,E., Kivela,A., Aukee,P., Takala,T., Valpas,A., Nilsson,C.G., A randomized trial comparing TVT with TVT-O: 12-month results, International Urogynecology Journal, 19, 1049-1054, 2008	Secondary publication of an included study 'Laurikainen et al., 2007'
Shin,J.H., Lim,J.S., Song,K.H., Sul,C.K., Na,Y.G., Prospective study comparing the suprapubic arc (Sparc) procedure and the transobturator (Monarc) procedure for	Not an RCT

Study	Reason for exclusion
treating female stress urinary incontinence, LUTS: Lower Urinary Tract Symptoms, 2, 37-42, 2010	
Sirls,L.T., Tennstedt,S., Lukacz,E., Rickey,L., Kraus,S.R., Markland,A.D., Kenton,K., Moalli,P., Hsu,Y., Huang,L., Stoddard,A.M., Condition-specific quality of life 24 months after retropubic and transobturator sling surgery for stress urinary incontinence, Female Pelvic Medicine and Reconstructive Surgery, 18, 291-295, 2012	Secondary publication of an excluded study 'Richter et al., 2010'
Sivaslioglu,A.A., Unlubilgin,E., Aydogmus,S., Keskin,L., Dolen,I., A prospective randomized controlled trial of the transobturator tape and tissue fixation mini-sling in patients with stress urinary incontinence: 5-year results, Journal of Urology, 188, 194-199, 2012	PICO not met - Study does not provide data on outcomes earlier than 12 months
Tcherniakovsky,M., Fernandes,C.E., Bezerra,C.A., Del Roy,C.A., Wroclawski,E.R., Comparative results of two techniques to treat stress urinary incontinence: synthetic transobturator and aponeurotic slings, International Urogynecology Journal, 20, 961-966, 2009	PICO not met - Study does not compare interventions of interest
Tommaselli,G.A., Formisano,C., Di,Carlo C., Fabozzi,A., Nappi,C., Effects of a modified technique for TVT-O positioning on postoperative pain: single-blind randomized study, International Urogynecology Journal, 23, 1293-1299, 2012	PICO not met - Study compared variations of transobturator "inside-out" procedure
Yang,X., Jiang,M., Chen,X., Tong,X., Li,H., Qiu,J., Shao,L., TVT-O vs. TVT for the treatment of SUI: a non-inferiority study, International Urogynecology Journal, 23, 99-104, 2012	Not an RCT
Yoon,C.J., Jung,H.C., Three-year outcomes of the innovative replacement of incontinence surgery procedure for treatment of female stress urinary incontinence: comparison with tension-free vaginal tape procedure, Journal of Korean Medical Science, 22, 497-501, 2007	PICO not met - No description of comparator procedure (IRIS)
Youn,C.S., Shin,J.H., Na,Y.G., Comparison of TOA and TOT for treating female stress urinary incontinence: Short-term outcomes, Korean Journal of Urology, 51, 544-549, 2010	Not an RCT
Zugor,V., Labanaris,A.P., Rezaei-Jafari,M.R., Hammerer,P., Dembowski,J., Witt,J., Wucherpfennig,W., TVT vs. TOT: a comparison in terms of continence results, complications and quality of life after a median follow-up of 48 months, International Urology and Nephrology, 42, 915-920, 2010	Not an RCT
Zyczynski,H.M., Rickey,L., Dyer,K.Y., Wilson,T., Stoddard,A.M., Gormley,E.A., Hsu,Y.,	Secondary of an excluded study 'Richter et al., 2010'

Study	Reason for exclusion
Kusek,J.W., Brubaker,L., Sexual activity and function in women more than 2 years after midurethral sling placement, American Journal of Obstetrics and Gynecology, 207, 421-421, 2012	

What is the long-term effectiveness of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure?

Study	Reason for exclusion
Abdel-Fattah,M., Mostafa,A., Familusi,A., Ramsay,I., N'dow,J., Prospective randomised controlled trial of transobturator tapes in management of urodynamic stress incontinence in women: 3-year outcomes from the evaluation of transobturator tapes study, European Urology, , 843-851, 2012	PICO not met - Dropout rate exceeded 25% of baseline sample
Agnew,G., Dwyer,P.L., Rosamilia,A., Edwards,G., Lee,J.K., Functional outcomes for surgical revision of synthetic slings performed for voiding dysfunction: a retrospective study, European Journal of Obstetrics, Gynecology, and Reproductive Biology, 163, 113-116, 2012	PICO not met - Study did not examine primmary tapes procedures
Aigmueller,T., Trutnovsky,G., Tamussino,K., Kargl,J., Wittmann,A., Surtov,M., Kern,P., Frudinger,A., Riss,P., Bjelic-Radisic,V., Ten-year follow-up after the tension-free vaginal tape procedure, American journal of obstetrics and gynecology, 205, 496-5, 2011	PICO not met - Dropout rate exceeded 25% of baseline sample
Ala-Nissila,S., Haarala,M., Makinen,J., Tension-free vaginal tape a suitable procedure for patients with recurrent stress urinary incontinence, Acta Obstetricia et Gynecologica Scandinavica, 89, 210-216, 2010	PICO not met - incomplete reporting of outcome data
Ammendrup,A.C., Jorgensen,A., Sander,P., Ottesen,B., Lose,G., A Danish national survey of women operated with mid-urethral slings in 2001, Acta Obstetricia et Gynecologica Scandinavica, 88, 1227-1233, 2009	PICO not met - various incontinence procedures performed and no data specific to interventions of interest
Angioli,R., Plotti,F., Muzii,L., Montera,R., Panici,P.B., Zullo,M.A., Tension-free vaginal tape versus transobturator suburethral tape: Five-year follow-up results of a prospective, randomised trial, European Urology, 58, 671-677, 2010	PICO not met - Sample size of each group was less than 50
Ankardal,M., Heiwall,B., Lausten-Thomsen,N., Carnelid,J., Milsom,I., Short- and long-term results of the tension-free vaginal tape procedure in the treatment of female urinary incontinence, Acta Obstetricia et Gynecologica Scandinavica, 85, 986-992,	PICO not met - Dropout rate exceeded 25% of baseline sample

Study	Reason for exclusion
2006	
Ballester,M., Bui,C., Frobert,J.L., Grisard-Anaf,M., Lienhart,J., Fernandez,H., vid-Montefiore,E., Rouzier,R., Darai,E., Four-year functional results of the suburethral sling procedure for stress urinary incontinence: A French prospective randomized multicentre study comparing the retropubic and transobturator routes, World Journal of Urology, 30, 117-122, 2012	PICO not met - Sample size of each group was less than 50
Bjelic-Radisic,V., Greimel,E., Trutnovsky,G., Zeck,W., Aigmueller,T., Tamussino,K., Patient-reported outcomes and urinary continence five years after the tension-free vaginal tape operation, Neurourology and Urodynamics, 30, 1512-1517, 2011	PICO not met - Dropout rate exceeded 25% of baseline sample
Brubaker,L., Norton,P.A., Albo,M.E., Chai,T.C., Dandreo,K.J., Lloyd,K.L., Lowder,J.L., Sirls,L.T., Lemack,G.E., Arisco,A.M., Xu,Y., Kusek,J.W., Urinary Inc, Adverse events over two years after retropubic or transobturator midurethral sling surgery: findings from the Trial of Midurethral Slings (TOMUS) study, American journal of obstetrics and gynecology, 205, 498-6, 2011	PICO not met - incomplete data on outcomes of interest
Celebi,I., Gungorduk,K., Ark,C., Akyol,A., Results of the tension-free vaginal tape procedure for treatment of female stress urinary incontinence: a 5-year follow-up study, Archives of Gynecology and Obstetrics, 279, 463-467, 2009	Retrospective study
Cho,M.K., Kim,C.H., Kang,W.D., Kim,J.W., Kim,S.M., Kim,Y.H., Comparison of the clinical and quality-of-life outcomes after the inside-out TVT-O procedure with or without concomitant transvaginal gynaecological surgery, Journal of Obstetrics and Gynaecology, 32, 280-284, 2012	PICO not met - Follow-up was less than 24 months
Choo,G.Y., Kim,D.H., Park,H.K., Paick,S.H., Lho,Y.S., Kim,H.G., Long-term Outcomes of Tension-free Vaginal Tape Procedure for Treatment of Female Stress Urinary Incontinence with Intrinsic Sphincter Deficiency, International neurourology journal, 16, 47-50, 2012	PICO not met - Timing of outcome assessment unclear
Chung,E., Tse,V., Chan,L., Mid-urethral synthetic slings in the treatment of urodynamic female stress urinary incontinence without concomitant pelvic prolapse repair: 4-year health-related quality of life outcomes, BJU International, 105, 514-517, 2010	PICO not met - sample size less than 50
Cresswell,J., Page,T., Thorpe,A.C., Long-term evaluation of tension-free vaginal tape (TVT) outcomes for a UK surgeon: Objective assessment and patient satisfaction questionnaires, British Journal of Medical and Surgical Urology, 1, 58-62, 2008	PICO not met - Timing of follow-up assessment unclear

Study	Reason for exclusion
Deffieux,X., Donnadieu,A.C., Porcher,R., Gervaise,A., Frydman,R., Fernandez,H., Long-term results of tension-free vaginal tape for female urinary incontinence: follow up over 6 years, International Journal of Urology, 14, 521-526, 2007	PICO not met - timing of follow-up assessment unclear
Drahoradova,P., Martan,A., Svabik,K., Zvara,K., Otava,M., Masata,J., Longitudinal trends with improvement in quality of life after TVT, TVT O and Burch colposuspension procedures, Medical Science Monitor, 17, CR67-CR72, 2011	PICO not met - Dropout rate exceeded 25% of baseline sample
Fong,E.D.M., Nitti,V.W., Mid-urethral synthetic slings for female stress urinary incontinence, BJU International, 106, 596-608, 2010	Review article
Glavind,K., Glavind,E., Fenger-Gron,M., Long-term subjective results of tension-free vaginal tape operation for female urinary stress incontinence, International Urogynecology Journal, 23, 585-588, 2012	PICO not met - Dropout rate exceeded 25% of baseline sample
Han,J.Y., Song,C., Park,J., Jung,H.C., Lee,K.S., Choo,M.S., A long-term study of the effects of the tension-free vaginal tape procedure for female stress urinary incontinence on voiding, storage, and patient satisfaction: A post-hoc analysis, Korean Journal of Urology, 51, 40-44, 2010	Secondary publication of an included study 'Doo et al., 2006'
Harms,L., Emons,Gunter, Bader,W., Lange,R., Hilgers,R., Viereck,V., Funneling before and after anti-incontinence surgery - A prognostic indicator? Part 2: Tension-free vaginal tape, International urogynecology journal and pelvic floor dysfunction, 18, 289-294, 2007	Secondary publication of an included study 'Viereck et al., 2006'
Health,Quality Ontario, Midurethral slings for women with stress urinary incontinence: an evidence-based analysis, Ontario Health Technology Assessment Series, 6, 1-61, 2006	Health technology appraisal
Heidler,S., Ofner-Kopeinig,P., Puchwein,E., Hutterer,G.C., Pummer,K., Primus,G., Quality of life after SPARC sling procedure: A long-term retrospective analysis, Urologia Internationalis, 86, 424-426, 2011	PICO not met - timing of follow-up assessment unclear
Heinonen,P., Ala-Nissila,S., Kiilholma,P., Laurikainen,E., Tension-free vaginal tape procedure without preoperative urodynamic examination: Long-term outcome, International Journal of Urology, 19, 1003-1009, 2012	PICO not met - Dropout rate exceeded 25% of baseline sample
Hellberg,D., Holmgren,C., Lanner,L., Nilsson,S., The very obese woman and the very old woman: tension-free vaginal tape for the treatment of stress urinary incontinence, International Urogynecology Journal, 18, 423-429, 2007	PICO not met - Timing of follow-up assessment unclear
Holmgren,C., Hellberg,D., Lanner,L., Nilsson,S., Quality of life after tension-free	PICO not met - timing of follow-up assessment unclear

Study	Reason for exclusion
vaginal tape surgery for female stress incontinence, Scandinavian Journal of Urology and Nephrology, 40, 131-137, 2006	
Holmgren,C., Nilsson,S., Lanner,L., Hellberg,D., Frequency of de novo urgency in 463 women who had undergone the tension-free vaginal tape (TVT) procedure for genuine stress urinary incontinence-A long-term follow-up, European Journal of Obstetrics Gynecology and Reproductive Biology, 132, 121-125, 2007	PICO not met - Timing of follow-up assessment unclear
Houwert,R.M., Renes-Zijl,C., Vos,M.C., Vervest,H.A., TVT-O versus Monarc after a 2-4-year follow-up: a prospective comparative study, International Urogynecology Journal, 20, 1327-1333, 2009	PICO not met - Timing of follow-up assessment unclear
Jelovsek,J.E., Barber,M.D., Karram,M.M., Walters,M.D., Paraiso,M.F.R., Randomised trial of laparoscopic Burch colposuspension versus tension-free vaginal tape: Long-term follow up, BJOG: An International Journal of Obstetrics and Gynaecology, 115, 219-225, 2008	PICO not met - Sample size of each group less than 50
Jeon,M.J., Jung,H.J., Chung,S.M., Kim,S.K., Bai,S.W., Comparison of the treatment outcome of pubovaginal sling, tension-free vaginal tape, and transobturator tape for stress urinary incontinence with intrinsic sphincter deficiency, American Journal of Obstetrics and Gynecology, 199, 76-4, 2008	PICO not met - timing of follow-up assessment unclear
Jeong,M.Y., Kim,S.J., Kim,H.S., Koh,J.S., Kim,J.C., Comparison of Efficacy and Satisfaction between the TVT-SECUR[REGISTERED] and MONARC[REGISTERED] Procedures for the Treatment of Female Stress Urinary Incontinence, Korean Journal of Urology, 51, 767-771, 2010	PICO not met - Timing of follow-up assessment unclear
Jun,K.K., Oh,S.M., Choo,G.Y., Park,H.K., Paick,S.H., Lho,Y.S., Kim,H.G., Long-term Clinical Outcomes of the Tension-free Vaginal Tape Procedure for the Treatment of Stress Urinary Incontinence in Elderly Women over 65, Korean Journal of Urology, 53, 184-188, 2012	PICO not met - Timing of follow-up assessment unclear
Khandwala,S., Jayachandran,C., Sengstock,D., Experience with TVT-SECUR sling for stress urinary incontinence: a 141-case analysis, International Urogynecology Journal, 21, 767-772, 2010	PICO not met - Timing of outcome assessment unclear
Kim,J., Lucioni,A., Govier,F., Kobashi,K., Worse long-term surgical outcomes in elderly patients undergoing SPARC TM retropubic midurethral sling placement, BJU International, 108, 708-712, 2011	PICO not met - Dropout rate exceeded 25% of baseline sample
Koops,S.E., Bisseling,T.M., van Brummen,H.J., Heintz,A.P., Vervest,H.A., What	PICO not met - Timing of follow-up assessment unclear

Study	Reason for exclusion
determines a successful tension-free vaginal tape? A prospective multicenter cohort study: results from The Netherlands TVT database, American Journal of Obstetrics and Gynecology, 194, 65-74, 2006	
Kulseng-Hanssen,S., Husby,H., Schiotz,H.A., Follow-up of TVT operations in 1,113 women with mixed urinary incontinence at 7 and 38 months, International Urogynecology Journal, 19, 391-396, 2008	PICO not met - Dropout rate exceeded 25% of baseline sample
Kuuva,N., Gustaf,NilssonC, Long-term results of the tension-free vaginal tape operation in an unselected group of 129 stress incontinent women, Acta Obstetricia et Gynecologica Scandinavica, 85, 482-487, 2006	PICO not met - Timing of follow-up assessment unclear
Lee,J.H., Cho,M.C., Oh,S.J., Kim,S.W., Paick,J.S., Long-term outcome of the tension-free vaginal tape procedure in female urinary incontinence: A 6-year follow-up, Korean Journal of Urology, 51, 409-415, 2010	PICO not met - Dropout rate exceeded 25% of baseline sample
Lee,J.K., Dwyer,P.L., Rosamilia,A., Lim,Y.N., Polyakov,A., Stav,K., Persistence of urgency and urge urinary incontinence in women with mixed urinary symptoms after midurethral slings: a multivariate analysis, BJOG: An International Journal of Obstetrics and Gynaecology, 118, 798-805, 2011	PICO not met - Timing of follow-up assessment unclear
Li,B., Zhu,L., Lang,J.H., Fan,R., Xu,T., Long-term outcomes of the tension-free vaginal tape procedure for female stress urinary incontinence: 7-year follow-up in China, Journal of Minimally Invasive Gynecology, 19, 201-205, 2012	PICO not met - Timing of follow-up assessment unclear
Liapis,A., Bakas,P., Creatsas,G., Efficacy of inside-out transobturator vaginal tape (TVTO) at 4 years follow up, European Journal of Obstetrics, Gynecology, and Reproductive Biology, 148, 199-201, 2010	Retrospective study
Masata,J., Svabik,K., Hubka,P., Zvara,K., El,HaddadR, Drahoradova,P., Martan,A., Is the fixation of single incision tape (TVT-S) as good as a transobturator tape (TVT-O)? An ultrasound study, results from randomized trial, Neurourology and Urodynamics, 31, 731-733, 2012	Conference abstract of an included study 'Masata et al., 2012'
Masata,J., Svabik,K., Zvara,K., Drahoradova,P., El,Haddad R., Hubka,P., Martan,A., Randomized trial of a comparison of the efficacy of TVT-O and single-incision tape TVT SECUR systems in the treatment of stress urinary incontinent women--2-year follow-up, International Urogynecology Journal, 23, 1403-1412, 2012	PICO not met - timing of follow-up assessment unclear
Menahem,N., Tension-free vaginal tape obturator: midterm data on an operative procedure for the cure of female stress urinary incontinence performed on 100	PICO not met - Timing of follow-up assessment unclear

Study	Reason for exclusion
patients, Journal of Minimally Invasive Gynecology, 15, 92-96, 2008	
Metin,A., Kayigil,O., Ahmed,S.I., Atmaca,A.F., Is the efficacy of in situ vaginal wall slings decreasing in the late follow-up?, International Urology and Nephrology, 40, 51-55, 2008	PICO not met - Study did not examine interventions of interest
Mohamed,B., Radhouane,A., Amir,B.N., Samia,B.J., Lotfi,M., Mounir,C., Radouane,R., Postoperative complications after tension-free vaginal tape versus transobturator tape procedure for stress urinary incontinence, Internet Journal of Gynecology and Obstetrics, 15, -, 2011	PICO not met - Dropout rate exceeded 25% of baseline sample
Nazemi,T.M., Yamada,B., Govier,F.E., Kuznetsov,D.D., Kodama,K., Kobashi,K.C., Minimum 24-month followup of the sling for the treatment of stress urinary incontinence, Journal of Urology, 179, 596-599, 2008	PICO not met - Timing of follow-up assessment unclear
Neuman,M., The catheter straight guide does not reduce the incidence of bladder penetration during TVT placement by the experienced surgeon, Gynecological Surgery, 3, 23-24, 2006	PICO not met - Study only followed up bladder perforation cases
Nilsson,C.G., Palva,K., Rezapour,M., Falconer,C., Eleven years prospective follow-up of the tension-free vaginal tape procedure for treatment of stress urinary incontinence, International Urogynecology Journal, 19, 1043-1047, 2008	PICO not met - timing of follow-up assessment unclear
North,C.E., Hilton,P., Ali-Ross,N.S., Smith,A.R.B., A 2-year observational study to determine the efficacy of a novel single incision sling procedure (MinitapeTM) for female stress urinary incontinence, BJOG: An International Journal of Obstetrics and Gynaecology, 117, 356-360, 2010	PICO not met - Sample size less than 50
Ohkawa,A., Kondo,A., Takei,M., Gotoh,M., Ozawa,H., Kato,K., Ohashi,T., Nakata,M., Tension-free vaginal tape surgery for stress urinary incontinencne: A prospective multicentered study in Japan, International Journal of Urology, 13, 738-742, 2006	PICO not met - Dropout rate exceeded 25% of baseline sample
Olsson,I., Abrahamsson,A.K., Kroon,U.B., Long-term efficacy of the tension-free vaginal tape procedure for the treatment of urinary incontinence: a retrospective follow-up 11.5 years post-operatively, International Urogynecology Journal, 21, 679-683, 2010	PICO not met - timing of follow-up assessment unclear
Palva,K., Nilsson,C.G., Prevalence of urinary urgency symptoms decreases by mid-urethral sling procedures for treatment of stress incontinence, International urogynecology journal and pelvic floor dysfunction, 22, 1241-1247, 2011	PICO not met - Timing of follow-up assessment less than 24 months
Park,Y.J., Kim,D.Y., Randomized Controlled Study of MONARC[REGISTERED] vs.	PICO not met - Sample size of each group was less than the required 50

Study	Reason for exclusion
Tension-free Vaginal Tape Obturator (TVT-O[REGISTERED]) in the Treatment of Female Urinary Incontinence: Comparison of 3-Year Cure Rates, Korean Journal of Urology, 53, 258-262, 2012	
Prien-Larsen,J.C., Hemmingsen,L., Long-term outcomes of TVT and IVS operations for treatment of female stress urinary incontinence: monofilament vs. multifilament polypropylene tape, International Urogynecology Journal, 20, 703-709, 2009	PICO not met - timing of follow-up assessment unclear
Pushkar,D.Y., Godunov,B.N., Gvozdev,M., Kasyan,G.R., Complications of mid-urethral slings for treatment of stress urinary incontinence, International Journal of Gynecology and Obstetrics, 113, 54-57, 2011	PICO not met - Timing of follow-up assessment unclear
Rapp,D.E., Govier,F.E., Kobashi,K.C., Outcomes following mid-urethral sling placement in patients with intrinsic sphincteric deficiency: comparison of Sparc and Monarc slings, International Braz J Urol, 35, 68-75, 2009	PICO not met - Follow-up was less than 24 months
Reich,A., Kohorst,F., Kreienberg,R., Flock,F., Long-term results of the tension-free vaginal tape procedure in an unselected group: A 7-year follow-up study, Urology, 78, 774-777, 2011	PICO not met - Dropout rate exceeded 25% of baseline sample
Rodrigues,P., Hering,F., Meller,A., Campagnari,J.C., Slings may not fail as frequently as believed for stress urinary incontinence: the misinterpretation of postoperative voiding dysfunction as failure based on patient report, Female Pelvic Medicine and Reconstructive Surgery, 17, 302-304, 2011	PICO not met - Intervention was not a procedure of interest
Rogo-Gupta,L., Baxter,Z.C., Le,N.B., Raz,S., Rodriguez,L.V., Long-term durability of the distal urethral polypropylene sling for the treatment of stress urinary incontinence: Minimum 11-year followup, Journal of Urology, 188, 1822-1827, 2012	PICO not met - Study did not examine an intervention of interest
Ross,S., Robert,M., Lier,D., Eliasziw,M., Jacobs,P., Surgical management of stress urinary incontinence in women: safety, effectiveness and cost-utility of trans-obturator tape (TOT) versus tension-free vaginal tape (TVT) five years after a randomized surgical trial, BMC women's health, Vol.11, pp.34, 2011., -, -32676	Protocol for a follow-up analysis and no data provided
Rutman,M., Itano,N., Deng,D., Raz,S., Rodriguez,L.V., Long-term durability of the distal urethral polypropylene sling procedure for stress urinary incontinence: minimum 5-year followup of surgical outcome and satisfaction determined by patient reported questionnaires, Journal of Urology, 175, 610-613, 2006	PICO not met - study did not examine an intervention of interest
Schierlitz,L., Dwyer,P.L., Rosamilia,A., Murray,C., Thomas,E., De,SouzaA, Hiscock,R., Three-year follow-up of tension-free vaginal tape compared with	PICO - outcomes not adequately reported

Study	Reason for exclusion
transobturator tape in women with stress urinary incontinence and intrinsic sphincter deficiency, Obstetrics and gynecology, 119, 321-327, 2012	
Schraffordt Koops,S.E., Bisseling,T.M., Heintz,A.P., Vervest,H.A., Quality of life before and after TVT, a prospective multicentre cohort study, results from the Netherlands TVT database, BJOG: An International Journal of Obstetrics and Gynaecology, 113, 26-29, 2006	Second report of an included study 'Koops et al., 2006'
Schraffordt Koops,S.E., Bisseling,T.M., van Brummen,H.J., Heintz,A.P., Vervest,H.A., Result of the tension-free vaginal tape in patients with concomitant prolapse surgery: a 2-year follow-up study. An analysis from the Netherlands TVT database, International Urogynecology Journal, 18, 437-442, 2007	PICO not met - inclusion criteria unclear
Sirls,L.T., Tennstedt,S., Lukacz,E., Rickey,L., Kraus,S.R., Markland,A.D., Kenton,K., Moalli,P., Hsu,Y., Huang,L., Stoddard,A.M., Condition-specific quality of life 24 months after retropubic and transobturator sling surgery for stress urinary incontinence, Female Pelvic Medicine and Reconstructive Surgery, 18, 291-295, 2012	PICO not met - Timing of follow-up assessment unclear
Sivaslioglu,A.A., Unlubilgin,E., Aydogmus,S., Keskin,L., Dolen,I., A prospective randomized controlled trial of the transobturator tape and tissue fixation mini-sling in patients with stress urinary incontinence: 5-year results, Journal of Urology, 188, 194-199, 2012	PICO not met - Sample size of each group was less than the required 50
Song,P.H., Kim,Y.D., Kim,H.T., Lim,H.S., Hyun,C.H., Seo,J.H., Yoo,E.S., Park,C.H., Jung,H.C., The 7-year outcome of the tension-free vaginal tape procedure for treating female stress urinary incontinence, BJU International, 104, 1113-1117, 2009	Retrospective study
Stavros,C., Ioannis,V., Vasileios,S.I., Gkotsi,A.Ch, Georgios,S., Papathanasiou,A., Rombis,V., Comparison of TVT, TVT-O/TOT and mini slings for the treatment of female stress urinary incontinence: 30 Months follow up in 531 patients, Archivio Italiano di Urologia e Andrologia, 84, 129-136, 2012	PICO not met - Dropout rate exceeded 25% of baseline sample
Strgulc,M., Barbic,M., Long-term self-assessment of urinary continence after stress urinary incontinence surgery, Female Pelvic Medicine and Reconstructive Surgery, 18, 296-298, 2012	PICO not met - Timing of follow-up assessment unclear
Tommaselli,G.A., Di,CarloC, Formisano,C., Fabozzi,A., Nappi,C., TVT-Secur for the treatment of female stress urinary incontinence: A 24-month follow-up retrospective study, Archives of Gynecology and Obstetrics, 286, 415-421, 2012	Study does not provide data on total number of women who had the intervention
Tommaselli,G.A., Formisano,C., Di,Carlo C., Fabozzi,A., Nappi,C., Effects of a	PICO not met - Sample size of each group was less than 50

Study	Reason for exclusion
modified technique for TVT-O positioning on postoperative pain: single-blind randomized study, International Urogynecology Journal, 23, 1293-1299, 2012	
Waltregny,D., Gaspar,Y., Reul,O., Hamida,W., Bonnet,P., De,LevalJ, TVT-O for the Treatment of Female Stress Urinary Incontinence: Results of a Prospective Study after a 3-Year Minimum Follow-Up, European Urology, 53, 401-410, 2008	PICO not met - timing of follow-up assessment unclear
Wang,W., Zhu,L., Lang,J., Transobturator tape procedure versus tension-free vaginal tape for treatment of stress urinary incontinence, International Journal of Gynaecology and Obstetrics, 104, 113-116, 2009	PICO not met - Dropout rate exceeded 25% of baseline sample
Ward,K.L., Hilton,P., UK and Ireland TVT Trial Group, Tension-free vaginal tape versus colposuspension for primary urodynamic stress incontinence: 5-year follow up, BJOG : an international journal of obstetrics and gynaecology, 115, 226-233, 2008	PICO not met - Dropout rate exceeded 25% of baseline sample
Wu,J.Y., He,H.C., Chen,S.W., Jin,X.D., Zhou,Y.X., Surgical therapies of female stress urinary incontinence: experience in 228 cases, International Urogynecology Journal, 21, 645-649, 2010	PICO not met - Timing of follow-up assessment unclear
Zugor,V., Labanaris,A.P., Rezaei-Jafari,M.R., Hammerer,P., Dembowski,J., Witt,J., Wucherpfennig,W., TVT vs. TOT: a comparison in terms of continence results, complications and quality of life after a median follow-up of 48 months, International Urology and Nephrology, 42, 915-920, 2010	PICO not met - timing of follow-up assessment unclear
Zyczynski,H.M., Rickey,L., Dyer,K.Y., Wilson,T., Stoddard,A.M., Gormley,E.A., Hsu,Y., Kusek,J.W., Brubaker,L., Sexual activity and function in women more than 2 years after midurethral sling placement, American Journal of Obstetrics and Gynecology, 207, 421-421, 2012	Conference paper

What is the comparative effectiveness of interventions for women with failure of the primary tape procedure?

Study	Reason for exclusion
Abdel-Fattah,M., Ramsay,I., Pringle,S., Hardwick,C., Ali,H., Young,D., Mostafa,A., Evaluation of transobturator tension-free vaginal tapes in management of women with recurrent stress urinary incontinence, Urology, , 1070-1075, 2011	PICO not met - Incomplete data on outcomes of interest
Azam,U., Frazer,M.I., Kozman,E.L., Ward,K., Hilton,P., Rane,A., The tension-free vaginal tape procedure in women with previous failed stress incontinence surgery, Journal of Urology, 166, 554-556, 2001	PICO not met - Less than 50% of sample had a primary procedure of interest

Study	Reason for exclusion
Biggs,G.Y., Ballert,K.N., Rosenblum,N., Nitti,V., Patient-reported outcomes for tension-free vaginal tape-obturator in women treated with a previous anti-incontinence procedure, International Urogynecology Journal, 20, 331-335, 2009	PICO not met - Less than 50% of sample had a primary procedure of interest
Errando,C., Batista,J.E., Arano,P., Polytetrafluoroethylene sling for failure in female stress incontinence surgery, World Journal of Urology, 14 Suppl 1, S48-S50, 1996	PICO not met - Less than 50% of sample had a primary procedure of interest
Foote,A.J., Lam,A., Laparoscopic colposuspension in women with previously failed anti-incontinence surgery, Journal of Obstetrics and Gynaecology Research, 23, 313-317, 1997	Sample size < 10
Isom-Batz,G., Zimmern,P.E., Collagen injection for female urinary incontinence after urethral or periurethral surgery, Journal of Urology, 181, 701-704, 2009	PICO not met - Less than 50% of sample had a primary procedure of interest
Lo,T.S., Horng,S.G., Chang,C.L., Huang,H.J., Tseng,L.H., Liang,C.C., Tension-free vaginal tape procedure after previous failure in incontinence surgery, Urology, 60, 57-61, 2002	PICO not met - Less than 50% of sample had a primary procedure of interest
Maher,C., Dwyer,P., Carey,M., Gilmour,D., The Burch colposuspension for recurrent urinary stress incontinence following retropubic continence surgery, British Journal of Obstetrics and Gynaecology, 106, 719-724, 1999	PICO not met - Study defined continence as 'cured' and 'improved'
Ockrim,J.L., Greenwell,T.J., Shah,P.J., Tension-free transvaginal (TVT) and transobturator (TOT) tapes in women with multiple failed incontinence procedures or complex urogynaecological intervention, British Journal of Medical and Surgical Urology, 1, 67-74, 2008	PICO not met - Less than 50% of sample had a primary procedure of interest
Ordorica,R., Rodriguez,A.R., Coste-Delvecchio,F., Hoffman,M., Lockhart,J., Disabling complications with slings for managing female stress urinary incontinence, BJU International, 102, 333-336, 2008	Results are not clearly presented so unable to calculate the number of events
Patil,A., Moran,P., Duckett,J., How do urogynaecologists treat failed suburethral slings? Experience from the British Society of Urogynaecology database and literature review, Journal of Obstetrics and Gynaecology, 31, 514-517, 2011	Results not available for 67% of cases
Petrou,S.P., Frank,I., Complications and initial continence rates after a repeat pubovaginal sling procedure for recurrent stress urinary incontinence, Journal of Urology, 165, 1979-1981, 2001	PICO not met - Less than 50% of sample had a primary procedure of interest
Pradhan,A., Jain,P., Latthe,P.M., Effectiveness of midurethral slings in recurrent stress urinary incontinence: a systematic review and meta-analysis, International Urogynecology Journal, 23, 831-841, 2012	Meta-analysis

Study	Reason for exclusion
Segal,J., Steele,A., Vassallo,B., Kleeman,S., Silva,A.W., Pauls,R., Walsh,P., Karram,M., Various surgical approaches to treat voiding dysfunction following anti-incontinence surgery, International Urogynecology Journal, 17, 372-377, 2006	PICO not met - Less than 50% of sample had a primary procedure of interest
Sinha,S., Sinha,R., Reddy,J.B., Sirigiri,S.R., Kanakamedala,S.K., Urethral erosion with recurrent stress incontinence following transobturator tape surgery: urethral repair with simultaneous pubovaginal sling, Urology Journal, 9, 436-438, 2012	Single case study
Song,P.H., Yoo,E.S., Five-year outcomes of the transection of synthetic suburethral sling tape for treating obstructive voiding symptoms after transobturator sling surgery, Urology, 80, 551-555, 2012	PICO not met - Study had incomplete reporting of outcomes (> 50% lost at follow-up)
Thakar,R., Stanton,S., Prodigalidad,L., Den,BoonJ, Secondary colposuspension: Results of a prospective study from a tertiary referral centre, BJOG: An International Journal of Obstetrics and Gynaecology, 109, 1115-1120, 2002	PICO not met - Less than 50% of sample had a primary procedure of interest
Wei,T.S., Su,T.H., Tension-free vaginal tape failure caused by sling displacement and successfully retreated using Burch colposuspension, Acta Obstetricia et Gynecologica Scandinavica, 82, 385-386, 2003	Single case study
Weirenga,M.K., Cronje,H.S., Beyer,E., Suburethral sling procedures after previous surgery for urinary incontinence or pelvic organ prolapse, South African Journal of Obstetrics and Gynaecology, 13, 64-66, 2007	PICO not met - Less than 50% of sample had a primary procedure of interest

What patient characteristics are predictors of primary tape failure?

Study	Reason for exclusion
Abdel-Fattah,M., Ramsay,I., Pringle,S., Hardwick,C., Ali,H., Evaluation of transobturator tapes (E-TOT) study: randomised prospective single-blinded study comparing inside-out vs. outside-in transobturator tapes in management of urodynamic stress incontinence: Short term outcomes, European Journal of Obstetrics Gynecology and Reproductive Biology, 149, 106-111, 2010	Secondary report of an included study "Abdel-Fattah et al., 2010"
Abdel-Fattah,M., Ramsay,I., Pringle,S., Hardwick,C., Ali,H., Young,D., Mostafa,A., Evaluation of transobturator tension-free vaginal tapes in management of women with recurrent stress urinary incontinence, Urology, 77, 1070-1075, 2011	Secondary report of an included study "Abdel-Fattah et al., 2010"
Abdel-Fattah,M., Ramsay,I., Pringle,S., Hardwick,C., Ali,H., Young,D., Mostafa,A., Randomised prospective single-blinded study comparing 'inside-out' versus 'outside-in'	Secondary report of an included study "Abdel-Fattah et al., 2010"

Study	Reason for exclusion
transobturator tapes in the management of urodynamic stress incontinence: 1-year outcomes from the E-TOT study, BJOG: An International Journal of Obstetrics and Gynaecology, 117, 870-878, 2010	
Anger,J.T., Litwin,M.S., Wang,Q., Pashos,C.L., Rodriguez,L.V., The effect of age on outcomes of sling surgery for urinary incontinence, Journal of the American Geriatrics Society, 55, 1927-1931, 2007	Study did not include a multivariate regression analysis
Ayhan,A., Dogan,N.U., Guven,S., Guler,O.T., Boynukalin,F.K., Salman,M.C., Clinical outcome of transobturator tape concomitant with vaginal hysterectomy plus anterior posterior colporrhaphy, Archives of Gynecology and Obstetrics, 280, 375-380, 2009	Study did not include a multivariate regression analysis
Cetinel,B., Demirkesen,O., Risk factors influencing the complication rates of tension-free vaginal tape-type procedures, Current Opinion in Obstetrics and Gynecology, 17, 530-534, 2005	PICO not met - Study does not provide data on outcomes of interest
Cetinel,B., Demirkesen,O., Onal,B., Akkus,E., Alan,C., Can,G., Are there any factors predicting the cure and complication rates of tension-free vaginal tape?, International Urogynecology Journal, 15, 188-193, 2004	Study was retrospective in design
Chen,H.Y., Yeh,L.S., Chang,W.C., Ho,M., Analysis of risk factors associated with surgical failure of inside-out transobturator vaginal tape for treating urodynamic stress incontinence, International Urogynecology Journal, 18, 443-447, 2007	PICO not met - Study does not provide data on outcomes of interest
Groutz,A., Rosen,G., Gold,R., Lessing,J.B., Gordon,D., Long-term outcome of transobturator tension-free vaginal tape: Efficacy and risk factors for surgical failure, Journal of Women's Health, 20, 1525-1528, 2011	PICO not met - Study does not provide data on outcomes of interest
Houwert,R.M., Venema,P.L., Aquarius,A.E., Bruinse,H.W., Roovers,J.P., Vervest,H.A., Risk factors for failure of retropubic and transobturator midurethral slings, American Journal of Obstetrics and Gynecology, 201, 202-208, 2009	Study was retrospective in design
Hsiao,S.M., Chang,T.C., Lin,H.H., Risk factors affecting cure after mid-urethral tape procedure for female urodynamic stress incontinence: comparison of retropubic and transobturator routes, Urology, 73, 981-986, 2009	Study was retrospective in design
Hung,M.J., Liu,F.S., Shen,P.S., Chen,G.D., Lin,L.Y., Ho,E.S.C., Analysis of two sling procedures using polypropylene mesh for treatment of stress urinary incontinence, International Journal of Gynecology and Obstetrics, 84, 133-141, 2004	PICO not met - Study does not examine an intervention of interest
Hwang,E., Shin,J.H., Lim,J.S., Song,K.H., Sul,C.K., Na,Y.G., Predictive factors that influence treatment outcomes of innovative single incision sling: comparing TVT-Secur	Study provides results separately for different types of procedure

Study	Reason for exclusion
to an established transobturator sling for female stress urinary incontinence, International Urogynecology Journal, 23, 907-912, 2012	
Madhuvrata,P., Ford,J., Merrick,K., Boachie,C., bdel-fattah,M., Voiding dysfunction following suburethral tape, Journal of Obstetrics and Gynaecology, 31, 424-428, 2011	Study does not account for all whose tapes failed
Meschia,M., Pifarotti,P., Gattei,U., Bertozzi,R., Tension-free vaginal tape: analysis of risk factors for failures, International Urogynecology Journal, 18, 419-422, 2007	Study did not include a multivariate regression analysis
Morgan,D.M., Lewicky-Gaupp,C., Dunn,R.L., Jayaraman,G., Fenner,D.E., Delancey,J.O., McGuire,E.J., Wei,J.T., Factors associated with urge urinary incontinence after surgery for stress urinary incontinence, Female Pelvic Medicine and Reconstructive Surgery, 17, 120-124, 2011	Study does not examine risk factors for all causes of tape failure
Moss,E., Toozs-Hobson,P., Cardozo,L., Emens,M., Pogmore,J.R., Constantine,G., A multicentre review of the tension-free vaginal tape procedure in clinical practice, Journal of Obstetrics and Gynaecology, 22, 519-522, 2002	Study did not include a multivariate regression analysis
Nager,C.W., Sirls,L., Litman,H.J., Richter,H., Nygaard,I., Chai,T., Kraus,S., Zyczynski,H., Kenton,K., Huang,L., Kusek,J., Lemack,G., Urinary Inc, Baseline urodynamic predictors of treatment failure 1 year after mid urethral sling surgery, Journal of Urology, 186, 597-603, 2011	PICO not met - Study does not provide complete data on outcomes of interest
Paick,J.S., Ku,J.H., Kim,S.W., Oh,S.J., Son,H., Shin,J.W., Tension-free vaginal tape procedure for the treatment of mixed urinary incontinence: significance of maximal urethral closure pressure, Journal of Urology, 172, 1001-1005, 2004	PICO not met - Study included women with mixed UI
Paick,J.S., Oh,S.J., Kim,S.W., Ku,J.H., Tension-free vaginal tape, suprapubic arc sling, and transobturator tape in the treatment of mixed urinary incontinence in women, International Urogynecology Journal, 19, 123-129, 2008	PICO not met - Study included women with mixed UI
Rafii,A., Darai,E., Haab,F., Samain,E., Levardon,M., Deval,B., Body mass index and outcome of tension-free vaginal tape, European Urology, 43, 288-292, 2003	PICO not met - Study does not provide data on outcomes of interest
Richter,H.E., Diokno,A., Kenton,K., Norton,P., Albo,M., Kraus,S., Moalli,P., Chai,T.C., Zimmern,P., Litman,H., Tennstedt,S., Urinary Inc, Predictors of treatment failure 24 months after surgery for stress urinary incontinence, Journal of Urology, 179, 1024-1030, 2008	PICO not met - Study does not examine interventions of interest
Romancik,M., Kollarik,B., Lenko,V., Labudova,V., Obsitnik,M., Sedlar,J., Weibl,P., Critical appraisal of prognostic factors for transobturator tape implantation, Bratislavske Lekarske Listy, 111, 647-652, 2010	PICO not met - Study does not provide data on outcomes of interest

Study	Reason for exclusion
Rovner,E.S., Complications of anterior compartment vaginal surgery. [72 refs], Current Urology Reports, 8, 405-412, 2007	PICO not met - Study does not provide data on outcomes of interest
Salin,A., Conquy,S., Elie,C., Touboul,C., Parra,J., Zerbib,M., Debre,B., msellem-Ouazana,D., Identification of risk factors for voiding dysfunction following TVT placement, European Urology, 51, 782-787, 2007	PICO not met - Study does not examine predictors for all tape failures
Stav,K., Dwyer,P.L., Rosamilia,A., Schierlitz,L., Lim,Y.N., Lee,J., Risk factors of treatment failure of midurethral sling procedures for women with urinary stress incontinence, International Urogynecology Journal, 21, 149-155, 2010	Study was retrospective in design

Health economic global search (results of December rerun search)

Study	Reason for exclusion
Hassouna,M., Corcos,J., Dwyer,N., Gajewski,J., Gray,G., Robert,M., Tu,L.M., Sadri,H., Cost-effectiveness of sacral neuromodulation in refractory overactive bladder: A canadian perspective, Journal of Urology, 187, e117-, 2012	Abstract only
Penson,D.F., Re: Cost-effectiveness analysis of sacral neuromodulation and botulinum toxin a treatment for patients with idiopathic overactive bladder, Journal of Urology, 187, 2157-2158, 2012	Not an economic study
rreola-Ornelas,H., Rosado-Buzzo,A., Garcia-Mollinedo,M., Camacho-Cordero,L., Mucino-Ortega,E., Mould-Quevedo,J.F., Galindo-Suarez,R.M., Cost-effectiveness of tolterodine as treatment for overactive bladder (OAB) in adult mexican patients, Value in Health, 14, A76-, 2011	Conference abstract
Tu,L.M., Hassouna,M.M., Gajewski,J., Rob,M., Gray,G., Dwyer,N.E., Corcos,J., Sadri,H., A Canadian perspective of cost-effectiveness analysis of sacral neuromodulation in refractory overactive bladder, Neurourology and Urodynamics, 31, 764-765, 2012	Conference abstract

Neuromodulation. HEALTH ECONOMICS

Study	Reason for exclusion

Study	Reason for exclusion
Chen,H., Bercik,R., Thung,S., Cost-effectiveness of percutaneous tibial nerve stimulation versus extended-release tolterodine for overactive bladder, Neurourology and Urodynamics, 30, 247-, 2011	Conference extract, and inappropriate comparison (tolterodine ER)

Drugs vs Neuro vs BoNT-A for OAB caused by DOA. HEALTH ECONOMICS

Study	Reason for exclusion
Watanabe,J.H., Campbell,J.D., Ravelo,A., Chancellor,M.B., Kowalski,J., Sullivan,S.D., Cost analysis of interventions for antimuscarinic refractory patients with overactive bladder, Urology, 76, 835-840, 2010	Cost analysis from the USA health system perpective

What is the comparative effectiveness of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure? HEALTH ECONOMICS

Study	Reason for exclusion
Ankardal,M., Jarbrink,K., Milsom,I., Heiwall,B., Lausten-Thomsen,N., Ellstrom-Engh,M., Comparison of health care costs for open Burch colposuspension, laparoscopic colposuspension and tension-free vaginal tape in the treatment of female urinary incontinence, Neurourology and Urodynamics, 26, 761-766, 2007	Not relevant. Swedish cost study with 2003 prices.
Dumville,J.C., Manca,A., Kitchener,H.C., Smith,A.R., Nelson,L., Torgerson,D.J., COLPO Study Group., Cost-effectiveness analysis of open colposuspension versus laparoscopic colposuspension in the treatment of urodynamic stress incontinence, BJOG: An International Journal of Obstetrics and Gynaecology, 113, 1014-1022, 2006	Cost data more than 10 years old
Foglia,G., Mistrangelo,E., Lijoi,D., Alessandri,F., Ragni,N., Transfascial vaginal tape (TFT): a simple, safe and cost-effective procedure for stress urinary incontinence. A preliminary study, Archives of Gynecology and Obstetrics, 276, 59-63, 2007	Preliminary study, no detailed analysis of cost-effectiveness

Study	Reason for exclusion
Grimsby,G., Tyson,M., Wolter,C., A comparison of midurethral sling outcomes with and without concomitant prolapse repair, Neurourology and Urodynamics, 30, 250-, 2011	
Jacklin,P., Duckett,J., Renganathan,A., Analytic model comparing the cost utility of TVT versus duloxetine in women with urinary stress incontinence, International urogynecology journal and pelvic floor dysfunction, 21, 977-984, 2010	Inappropriate comparator
Trivedi,P., D'Costa,S., Shirkande,P., Kumar,S., Patil,M., A comparative evaluation of suburethral and transobturator sling in 209 cases with stress urinary incontinence in 8 years, Journal of Gynecological Endoscopy and Surgery, 1, 105-112, 2009	
Valpas,A., Rissanen,P., Kujansuu,E., Nilsson,C.G., A cost-effectiveness analysis of tension-free vaginal tape versus laparoscopic mesh colposuspension for primary female stress incontinence, Acta Obstetricia et Gynecologica Scandinavica, 85, 1485-1490, 2006	Cost data more than 10 years out of date

Appendix H Evidence tables

For evidence tables, please see separate document

Appendix I GRADE tables

GRADE profile I.5.1 GRADE findings for comparison of transcutaneous electrical stimulation of posterior tibial nerve with No active treatment for overactive bladder

Quality assessment							Summary of findings				
							Number of women		Effect		
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	transcutaneous electrical stimulation of posterior tibial nerve	NAT	Relative (95% CI)	Absolute (95% CI)	Quality
Patient satisfaction											
1 (Svihra et al., 2002)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	5/9 (55.6%)	0/9 (0%)	RR 11 (0.7 to 173.66)	556 more per 1000 (from 140 more to 811 more)[5]	LOW
Self reported rate of absolute symptom reduction: number of episodes of incontinence per day											
No evidence reported											
Self reported rate of absolute symptom reduction: number of episodes of urgency per day											
No evidence reported											
Continence status											
1 (Bellette et al., 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	serious[6]	very serious[4]	none	12/21 (57.1%)	6/16 (37.5%)	RR 1.52 (0.73 to 3.17)	195 more per 1000 (from 101 fewer to 814 more)	VERY LOW

Quality assessment							Summary of findings				
							Number of women		Effect		
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**transcutaneous electrical stimulation of posterior tibial nerve**	**NAT**	**Relative (95% CI)**	**Absolute (95% CI)**	**Quality**
Incontinence QOL (measured with: OAB-q total score; Better indicated by higher values)											
1 (Bellette et al., 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision	none	21	16	-	MD 16.02 higher (2.18 to 29.86 higher)	HIGH
Adverse effects											
2 (Bellette et al., 2009; Svihra et al., 2002)	randomised trials	no serious risk of bias[1]	no serious inconsistency[7]	no serious indirectness[3]	no serious imprecision[8]	none	0/30 (0%)	0/25 (0%)	not pooled	not pooled	HIGH
Psychological outcomes											
No evidence reported											
Post-void residual volume											
No evidence reported											

1 Unclear if there is a risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome were as specified in the review protocol

4 Confidence intervals around the point estimate cross into three zones

5 Unable to calculate automatically

6 Population and intervention were as specified in the review protocol but outcome was remission of urgency episodes not incontinence episodes which was not reported

7 Heterogeneity not calculable as there were no events in either study

8 Imprecision not calculable as there were no events in either study

CI confidence interval, GRA Global Response Assessment, MD minimal difference, QOL quality of life, OAB overactive bladder, T-PTNS transcutaneous posterior tibial nerve stimulation

GRADE profile I.5.2 GRADE findings for comparison of PTNS with sham PTNS for overactive bladder.

Quality assessment							Summary of findings				
							Number of patients		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	PTNS	Placebo	Relative (95% CI)	Absolute (95% CI)	
Patient satisfaction with treatment (follow-up 1 week[1]; assessed with: Global Response Assessment (GRA)[2])											
1 (Peters et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	60/110 (54.5%)	23/110 (20.9%)	RR 2.61 (1.75 to 3.9)	337 more women per 1000 (from 157 more to 606 more women)	HIGH
Incontinence episodes (follow-up 1 week; measured with: 3-day voiding diary[7]; Better indicated by lower values)											
1 (Peters et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	N =103 (from a mean of 3.4 episodes at baseline to 1.4 episodes at endpoint)	N = 105 (from a mean of 3.1 episodes at baseline to 1.9 episodes at endpoint)	-	0.5 (MD) fewer episodes per day (range 1.18 fewer to 0.18 more episodes)	HIGH

Quality assessment							Summary of findings				
							Number of patients		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	PTNS	Placebo	Relative (95% CI)	Absolute (95% CI)	
Urgency episodes (follow-up 1 week; measured with: 3-day voiding diary[8]; Better indicated by lower values)											
1 (Peters et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecison[4]	none	N = 103 (change from 8.5 mean episodes at baseline to 4.6 mean episodes at endpoint)	N = 105 (change from 8.2 mean episodes at baseline to 6.1 mean episodes at endpoint)	-	1.5 (MD) fewer episodes per day (range 2.56 to 0.44 fewer episodes)	HIGH
Continence status (follow-up unclear[9]; assessed with: 3-day voiding diary)											
2 (Finazzi-Agro et al., 2009; Finazzi-Agro et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[5]	serious indirectness[6]	no serious imprecision[4]	none	22/34 (64.7%)	0/25 (0%)	RR 16.15 (2.33 to 111.79)	667 more women per 1000 (444 to 802 more women)	MODERATE

Quality assessment							Summary of findings				
							Number of patients		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	PTNS	Placebo	Relative (95% CI)	Absolute (95% CI)	
Incontinence QOL (follow-up 1 week; measured with: Overactive Bladder Questionnaire (OAB-q)[13]; Better indicated by lower values)											
1 (Peters et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious imprecision[7]	none	N = 101 (change from baseline to endpoint = −36.7 points)	N =102 (change from baseline to endpoint = −29.2 points)	-	7.5 points (MD) improvement on OAB-q scale (range 13.21 to 1.79 lower)	MODERATE
Adverse effects (follow-up 1 week[9]; assessed with: self-report[15])											
2 (Finazzi-Agro et al., 2010; Peters et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[8]	no serious indirectness[5]	very serious imprecision[9]	none	6/128 (4.7%)	0/127 (0%)	RR 13 (0.74 to 228)	47 more women per 1000 (range 8 to 99 more women)	LOW
Psychological outcomes											
No evidence reported											
Post-void residual volume											
No evidence reported											

CI confidence interval, MD mean difference, RR relative risk

1 No apparent risk of bias in the individual studies.

2 Single study analysis

3 Population, intervention and outcome as specified in review protocol

4 Confidence interval within one zone (see methodology chapter)

5 Heterogeneity was low (I2 < 33%).

6 Evidence downgraded one level. Outcome: in both studies outcome was defined as the number of responders who had a 50% or greater reduction in incontinence episodes.

7 Evidence downgraded one level. Confidence interval crosses two zone

8 Heterogeneity was not calculable as one study reported zero events

9 Evidence downgraded two levels. Confidence interval crosses three zones

CI confidence interval, GRA Global Response Assessment, QOL quality of life, MD minimal difference, OAB overactive bladder, OAB-q overactive bladder questionnaire, P-PTNS percautaneous posterior tibial nerve stimulation, RR relative risk

GRADE profile I.5.3 GRADE findings for comparison of PTNS with drugs for overactive bladder.

Quality assessment							**Summary of findings**				
							Number of patients		**Effect**		
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**PTNS**	**Placebo**	**Relative (95% CI)**	**Absolute (95% CI)**	**Quality**
Patient satisfaction with treatment											
No evidence reported											
Self reported rate of absolute symptom reduction: number of episodes of incontinence per day											
1	randomised trials	no serious limitations[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	41	43	-	MD 0.6 lower (1.49 lower to 0.29 higher)	MODERATE
Self reported rate of absolute symptom reduction: number of episodes of urgency per day											
No evidence reported											
Continence status (defined as cured)											
1 (Peters et al., 2009)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	2/50 (4%)	2/50 (4%)	RR 1 (0.15 to 6.82)	0 fewer per 1000 (from 34 fewer to 233 more)	MODERATE
Incontinence QOL (OAB-q scale used - Better indicated by higher values)											

Quality assessment							Summary of findings				
							Number of patients		Effect		
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	PTNS	Placebo	Relative (95% CI)	Absolute (95% CI)	Quality
1 (Peters et al., 2009)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[5]	none	44	43	-	MD 3.2 higher (5.67 lower to 12.07 higher)	HIGH
Adverse effects											
1 (Peters et al., 2009)	RCT	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[6]	none	8/49 (16.3%)	7/49 (14.3%)	RR 1.14 (0.43 to 2.59)	20 more per 1000 (from 81 fewer to 227 more)	LOW
Psychological outcomes											
No evidence reported											
Post-void residual volume											
No evidence reported											

CI confidence interval, MD mean difference, RR relative risk

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcomes as specified in review protocol

4 Confidence intervals cross into two zones

5 Confidence intervals in a single zone

6 Confidence intervals cross into three zones

CI confidence interval, QOL quality of life, OAB overactive bladder, OAB-q overactive bladder, P-PTNS percutaneous posterior tibial nerve stimulation, RR relative risk

GRADE profile I.6.1 GRADE findings for comparison of oxybutynin immediate release with oxybutynin extended release for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Oxybutynin ER	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks											
No evidence reported											
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Oxybutynin ER	Relative (95% CI)	Absolute	
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
1 (MInassian et al., 2007)	Randol., mised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	28	37	-	MD 0.4 lower (0.89 lower to 0.09 higher)	HIGH
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
1 (MInassian et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	16/33 (48.5%)	13/39 (33.3%)	RR 1.45 (0.83 to 2.56)	150 more per 1000 (from 57 fewer to 520 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
1 (MInassian et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[6]	none	13/33 (39.4%)	12/39 (30.8%)	RR 1.28 (0.68 to 2.41)	86 more per 1000 (from 98 fewer to 434 more)	LOW
Any adverse effect - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin IR**	**Oxybutynin ER**	**Relative (95% CI)**	**Absolute**	
Any adverse effect - 12 weeks											
1 (MInassian et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[6]	none	16/33 (48.5%)	19/39 (48.7%)	RR 1 (0.62 to 1.6)	0 fewer per 1000 (from 185 fewer to 292 more)	LOW
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
1 (MInassian et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	16/33 (48.5%)	14/39 (35.9%)	RR 1.35 (0.78 to 2.33)	126 more per 1000 (from 79 fewer to 477 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate in a single zone
5 Confidence intervals around the point estimate cross into two zones
6 Confidence intervals around the point estimate cross into three zones
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release, ER extended release

GRADE profile I.6.2 GRADE findings for comparison of oxybutynin immediate release with tolterodine immediate release for overactive bladder

Quality assessment							**Number of patients**		**Effect**		**Quality**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin IR**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											
1 (Abrams et al., 1998)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	58/118 (49.2%)	59/118 (50%)	RR 0.98 (0.76 to 1.27)	10 fewer per 1000 (from 120 fewer to 135 more)	MODERATE
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
2 (Abrams et al., 1998; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[7]	none	127	152	-	MD 0.16 lower (0.73 lower to 0.42 higher)	HIGH
Urgency episodes/day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin IR**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
1 (Drutz et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	19/90 (21.1%)	23/103 (22.3%)	RR 0.95 (0.55 to 1.62)	11 fewer per 1000 (from 100 fewer to 138 more)	LOW
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Tolterodine IR	Relative (95% CI)	Absolute	
Dropouts - for any reason - 12 weeks											
1 (Drutz et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[7]	none	35/112 (31.3%)	12/109 (11%)	RR 2.84 (1.56 to 5.17)	203 more per 1000 (from 62 more to 459 more)	HIGH
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
2 (Abrams et al., 1998; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[7]	none	43/230 (18.7%)	17/227 (7.5%)	RR 2.46 (1.44 to 4.2)	109 more per 1000 (from 33 more to 240 more)	HIGH
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
2 (Abrams et al., 1998; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[7]	none	215/230 (93.5%)	190/227 (83.7%)	RR 1.1 (1.04 to 1.17)	84 more per 1000 (from 33 more to 142 more)	HIGH
Dry mouth - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin IR**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
Dry mouth - 12 weeks											
2 (Abrams et al., 1998; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	serious[9]	no serious indirectness[3]	no serious imprecision[7]	none	179/230 (77.8%)	92/227 (40.5%)	RR 1.93 (1.47 to 2.53)	377 more per 1000 (from 190 more to 620 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											
No evidence reported											

1 No apparent risk of bias in the included study
2 Single study analysis
3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate cross into two ones
5 No apparent risk of bias in the included studies
6 Heterogeneity was not present (I-squared < 33%)
7 Confidence intervals around the point estimate in a single zone
8 Confidence intervals around the point estimate cross into three zones
9 Heterogeneity was present (I-squared between 34% and 67%)
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release

GRADE profile I.6.3 GRADE findings for comparison of oxybutynin immediate release with propiverine immediate release for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin IR**	**Propiverine IR**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction - 4 weeks											
1 (Madersbacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	96/145 (66.2%)	104/149 (69.8%)	RR 0.95 (0.81 to 1.11)	35 fewer per 1000 (from 133 fewer to 77 more)	HIGH
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks											
No evidence reported											
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Propiverine IR	Relative (95% CI)	Absolute	
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Propiverine IR	Relative (95% CI)	Absolute	
1 (Wadelobacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	16/145 (11%)	19/149 (12.8%)	RR 0.87 (0.46 to 1.62)	17 fewer per 1000 (from 69 fewer to 79 more)	LOW
Dropouts - for any reason - 12 weeks											
No evidence reported											
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
No evidence reported											
Any adverse effect - 4 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Propiverine IR	Relative (95% CI)	Absolute	
1 (Madersbacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[6]	none	105/145 (72.4%)	95/149 (63.8%)	RR 1.14 (0.97 to 1.33)	89 more per 1000 (from 19 fewer to 210 more)	MODERATE
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
No evidence reported											
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Propiverine IR	Relative (95% CI)	Absolute	
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate in a single zone

5 Confidence intervals around the point estimate cross into three zones

6 Confidence intervals around the point estimate cross into two zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release

GRADE profile I.6.4 GRADE findings for comparison of solifenacin with tolterodine immediate release for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Tolterodine IR	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
No evidence reported											
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
1 (Choo et al., 2008)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	98	100	-	MD 0.07 higher (0.3 lower to 0.44 higher)	HIGH
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
2 (Choo et al., 2008; Chapple et al., 2004)	randomised trials	no serious risk of bias[5]	serious[6]	no serious indirectness[3]	no serious imprecision[4]	none	239	257	-	MD 0.07 lower (0.38 lower to 0.24 higher)	MODERATE
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
1 (Choo et al., 2008)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	83	92	-	MD 0 higher (0.87 lower to 0.87 higher)	HIGH
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
2 (Choo et al., 2008; Chapple et al., 2004)	randomised trials	no serious risk of bias	serious[6]	no serious indirectness[3]	serious[7]	none	362	350	-	MD 0.39 lower (1.26 lower to 0.48 higher)	LOW
Zero incontinence episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Tolterodine IR	Relative (95% CI)	Absolute	
Zero incontinence episodes - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[7]	none	35	32	-	MD 2.3 higher (6.12 lower to 10.72 higher)	MODERATE
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
No evidence reported											
Dropouts - for any reason - 4 weeks											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	3/37 (8.1%)	5/37 (13.5%)	RR 0.6 (0.15 to 2.33)	54 fewer per 1000 (from 115 fewer to 180 more)	LOW
Dropouts - for any reason - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
2 (Choo et al., 2008; Chapple et al., 2004)	randomised trials	no serious risk of bias[5]	no serious inconsistency[9]	no serious indirectness[3]	very serious[8]	none	50/399 (12.5%)	47/384 (12.2%)	RR 1.03 (0.71 to 1.5)	4 more per 1000 (from 35 fewer to 61 more)	LOW
Dropouts - for adverse effects - 4 weeks											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	1/37 (2.7%)	1/37 (2.7%)	RR 1 (0.06 to 15.4)	0 fewer per 1000 (from 25 fewer to 389 more)	LOW
Dropouts - for adverse effects - 12 weeks											
2 (Choo et al., 2008; Chapple et al., 2004)	randomised trials	no serious risk of bias[5]	no serious inconsistency[9]	no serious indirectness[3]	no serious imprecision[7]	none	14/399 (3.5%)	7/384 (1.8%)	RR 1.92 (0.78 to 4.71)	17 more per 1000 (from 4 fewer to 68 more)	HIGH
Any adverse effect - 4 weeks											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	12/37 (32.4%)	12/37 (32.4%)	RR 1 (0.52 to 1.93)	0 fewer per 1000 (from 156 fewer to 302 more)	LOW
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	5/37 (13.5%)	9/37 (24.3%)	RR 0.56 (0.21 to 1.5)	107 fewer per 1000 (from 192 fewer to 122 more)	LOW
Dry mouth - 12 weeks											
2 (Choo et al., 2008; Chapple et al., 2004)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[7]	none	48/399 (12%)	71/384 (18.5%)	RR 0.6 (0.33 to 1.09)	74 fewer per 1000 (from 124 fewer to 17 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											
1 (Choo et al., 2008)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	110	108	-	MD 3.6 higher (6.07 lower to 13.27 higher)	HIGH

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate in a single zone
5 No apparent risk of bias in the included studies
6 Heterogeneity was present (I-squared between 33% and 67%)
7 Confidence intervals around the point estimate cross into two zones
8 Confidence intervals around the point estimate cross into three zones
9 No heterogeneity present (I-squared < 33%)
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release

GRADE profile I.6.5 GRADE findings for comparison of solifenacin with tolterodine extended release for overactive bladder.

Quality assessment							**Number of patients**		**Effect**		**Quality**	**Importance**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**		
Patient satisfaction - 4 weeks												
No evidence reported												
Patient satisfaction - 12 weeks												
1 (Ho et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	32/39 (82.1%)	28/36 (77.8%)	RR 1.05 (0.84 to 1.33)	39 more per 1000 (from 124 fewer to 257 more)	MODERATE	
Incontinence episodes/day - 4 weeks												
No evidence reported												
Incontinence episodes/day - 12 weeks (Better indicated by lower values)												

Quality assessment							Number of patients		Effect		Quality	Importance
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**		
1 (Ho et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	34	32	-	MD 1.88 higher (1.48 lower to 5.24 higher)	LOW	
Urgency episodes/day - 4 weeks (Better indicated by lower values)												
No evidence reported												
Urgency episodes/day - 12 weeks (Better indicated by lower values)												
1 (Ho et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	34	32	-	MD 0.55 lower (1.94 lower to 0.84 higher)	MODERATE	
Zero incontinence episodes per day - 4 weeks												
1 (Chapple et al., 2005)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	225/593 (37.9%)	204/607 (33.6%)	RR 1.13 (0.97 to 1.31)	44 more per 1000 (from 10 fewer to 104 more)	MODERATE	
Zero incontinence episodes per day - 12 weeks												

Quality assessment							Number of patients		Effect		Quality	Importance
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**		
1 (Chapple et al., 2005)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	341/593 (57.5%)	294/607 (48.4%)	RR 1.19 (1.07 to 1.32)	92 more per 1000 (from 34 more to 155 more)	MODERATE	
Zero urgency episodes per day - 4 weeks												
No evidence reported												
Zero urgency episodes per day - 12 weeks												
No evidence reported												
Incontinence specific QoL - 4 weeks												
No evidence reported												
Incontinence specific QoL - 12 weeks (Better indicated by lower values)												
1 (Chapple et al., 2005)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[6]	none	568	583	-	MD 0.18 lower (0.35 to 0.01 lower)	HIGH	
Dropouts - for any reason - 4 weeks												
No evidence reported												
Dropouts - for any reason - 12 weeks												

Quality assessment							Number of patients		Effect		Quality	Importance
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Tolterodine ER	Relative (95% CI)	Absolute		
2 (Ho et al., 2010; Chapple et al., 2005)	randomised trials	no serious risk of bias[7]	no serious inconsistency[8]	no serious indirectness[3]	serious[4]	none	39/632 (6.2%)	48/643 (7.5%)	RR 0.82 (0.55 to 1.24)	13 fewer per 1000 (from 34 fewer to 18 more)	MODERATE	
Dropouts - for adverse effects - 4 weeks												
1 (Chapple et al., 2005)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	18/593 (3%)	17/607 (2.8%)	RR 1.08 (0.56 to 2.08)	2 more per 1000 (from 12 fewer to 30 more)	LOW	
Dropouts - for adverse effects - 12 weeks												
2 (Ho et al., 2010; Chapple et al., 2005)	randomised trials	no serious risk of bias[7]	no serious inconsistency[8]	no serious indirectness[3]	very serious[5]	none	21/632 (3.3%)	19/643 (3%)	RR 1.13 (0.61 to 2.07)	4 more per 1000 (from 12 fewer to 32 more)	LOW	
Any adverse effect - 4 weeks												
No evidence reported												
Any adverse effect - 12 weeks												

Quality assessment							Number of patients		Effect		Quality	Importance
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**		
1 (Ho et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	15/39 (38.5%)	9/36 (25%)	RR 1.54 (0.77 to 3.07)	135 more per 1000 (from 58 fewer to 517 more)	MODERATE	
Dry mouth - 4 weeks												
1 (Chapple et al., 2005)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	108/593 (18.2%)	91/607 (15%)	RR 1.21 (0.94 to 1.57)	31 more per 1000 (from 9 fewer to 85 more)	MODERATE	
Dry mouth - 12 weeks												
2 (Ho et al., 2010; Chapple et al., 2005)	randomised trials	no serious risk of bias[7]	no serious inconsistency[8]	no serious indirectness[3]	serious[4]	none	181/632 (28.6%)	147/643 (22.9%)	RR 1.25 (1.04 to 1.51)	57 more per 1000 (from 9 more to 117 more)	MODERATE	
Psychological outcomes – 4 weeks												
No evidence reported												
Psychological outcomes – 12 weeks												
No evidence reported												
Post-void residual volume - 4 weeks												
No evidence reported												
Post-void residual volume - 12 weeks (Better indicated by lower values)												

Quality assessment							Number of patients		Effect		Quality	Importance
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Tolterodine ER	Relative (95% CI)	Absolute		
1 (Ho et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[6]	none	34	32	-	MD 2.91 lower (17.92 lower to 12.1 higher)	HIGH	

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate cross into two zones

5 Confidence intervals around the point estimate cross into three zones

6 Confidence intervals around the point estimate in a single zone (MID for minor improvement = 1)

7 No apparent risk of bias in the included studies

8 No heterogeneity present (!-squared < 33%)

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, ER extended release

GRADE profile I.6.6 GRADE findings for comparison of oxybutynin extended release with tolterodine immediate release for overactive bladder.

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin ER	Tolterodine IR	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin ER**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
1 (Appell et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	160	172	-	MD 0.2 lower (0.59 lower to 0.19 higher)	HIGH
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin ER	Tolterodine IR	Relative (95% CI)	Absolute	
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
1 (Appell et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	25/185 (13.5%)	22/193 (11.4%)	RR 1.19 (0.69 to 2.03)	22 more per 1000 (from 35 fewer to 117 more)	LOW
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
1 (Appell et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[6]	none	14/185 (7.6%)	15/193 (7.8%)	RR 0.97 (0.48 to 1.96)	2 fewer per 1000 (from 40 fewer to 75 more)	MODERATE
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin ER**	**Tolterodine IR**	**Relative (95% CI)**	**Absolute**	
No evidence reported											
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
1 (Appell et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[6]	none	52/185 (28.1%)	64/193 (33.2%)	RR 0.85 (0.62 to 1.15)	50 fewer per 1000 (from 126 fewer to 50 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate in a single zone

5 Confidence intervals around the point estimate cross into three zones

6 Confidence intervals around the point estimate cross into two zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release, ER extended release

GRADE profile I.6.7 GRADE findings for comparison of oxybutynin extended release with tolterodine extended release for overactive bladder.

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin ER	Tolterodine ER	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks											
No evidence reported											
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin ER**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**	
1 (Diokno et al., 2003)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	78/391 (19.9%)	60/399 (15%)	RR 1.33 (0.98 to 1.8)	50 more per 1000 (from 3 fewer to 120 more)	MODERATE
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
1 (Diokno et al., 2003)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	52/391 (13.3%)	42/399 (10.5%)	RR 1.26 (0.86 to 1.85)	27 more per 1000 (from 15 fewer to 89 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin ER**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**	
Dropouts - for adverse effects - 12 weeks											
1 (Diokno et al., 2003)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	20/391 (5.1%)	19/399 (4.8%)	RR 1.07 (0.58 to 1.98)	3 more per 1000 (from 20 fewer to 47 more)	LOW
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
1 (Diokno et al., 2003)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	116/391 (29.7%)	89/399 (22.3%)	RR 1.33 (1.05 to 1.69)	74 more per 1000 (from 11 more to 154 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin ER	Tolterodine ER	Relative (95% CI)	Absolute	
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included studies

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate cross into two zones

5 Confidence intervals around the point estimate cross into three zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, ER extended release

GRADE profile I.6.8 GRADE findings for comparison of tolterodine immediate release with tolterodine extended release for overactive bladder.

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Tolterodine ER	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tolterodine IR**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**	
1 (Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	313/514 (60.9%)	336/507 (66.3%)	RR 0.92 (0.84 to 1.01)	53 fewer per 1000 (from 106 fewer to 7 more)	HIGH
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
1 (Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	514	507	-	MD 0.3 higher (0 to 0.6 higher)	HIGH
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tolterodine IR**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**	
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
1 (Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	63/514 (12.3%)	56/507 (11%)	RR 1.11 (0.79 to 1.56)	12 more per 1000 (from 23 fewer to 62 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tolterodine IR**	**Tolterodine ER**	**Relative (95% CI)**	**Absolute**	
1 (Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious6	none	28/514 (5.4%)	27/507 (5.3%)	RR 1.02 (0.61 to 1.71)	1 more per 1000 (from 21 fewer to 38 more)	LOW
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
1 (Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	156/514 (30.4%)	118/507 (23.3%)	RR 1.3 (1.06 to 1.6)	70 more per 1000 (from 14 more to 140 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Tolterodine ER	Relative (95% CI)	Absolute	
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate in a single zone

5 Confidence intervals around the point estimate cross into two zones

6 Confidence intervals around the point estimate cross into three zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release, ER extended release

GRADE profile I.6.9 GRADE findings for comparison of tolterodine extended release with fesoterodine for overactive bladder.

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Fesoterodine	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
2 (Herschorn et al., 2010; Kaplan et al, 2010)	randomised trials	no serious risk of bias[1]	serious[2]	no serious indirectness[3]	no serious imprecision[4]	none	958/1657 (57.8%)	1034/1639 (63.1%)	RR 0.91 (0.85 to 0.99)	57 fewer per 1000 (from 6 fewer to 95 fewer)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Fesoterodine	Relative (95% CI)	Absolute	
Patient satisfaction - 12 weeks											
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	1100/1947 (56.5%)	1203/1911 (63%)	RR 0.9 (0.86 to 0.95)	63 fewer per 1000 (from 31 fewer to 88 fewer)	HIGH
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
2 (Herschorn et al., 2010; Kaplan et al, 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	1558	1538	-	MD 0.14 higher (0.04 to 0.25 higher)	HIGH
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	1775	1726	-	MD 0.17 higher (0.06 to 0.28 higher)	HIGH
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
2 (Herschorn et al., 2010; Kaplan et al, 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	1560	1542	-	MD 0.4 higher (0.01 to 0.79 higher)	HIGH
Urgency episodes/day - 12 weeks (Better indicated by lower values)											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tolterodine ER**	**Fesoterodine**	**Relative (95% CI)**	**Absolute**	
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	serious[2]	no serious indirectness[3]	no serious imprecision[4]	none	1847	1808	-	MD 0.18 higher (0.33 lower to 0.69 higher)	MODERATE
Zero incontinence episodes per day - 4 weeks											
2 (Herschorn et al., 2010; Kaplan et al, 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	722/1647 (43.8%)	770/1629 (47.3%)	RR 0.93 (0.86 to 1)	33 fewer per 1000 (from 66 fewer to 0 more)	HIGH
Zero incontinence episodes per day - 12 weeks											
2 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	896/1647 (54.4%)	970/1629 (59.5%)	RR 0.91 (0.86 to 0.97)	54 fewer per 1000 (from 18 fewer to 83 fewer)	HIGH
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Fesoterodine	Relative (95% CI)	Absolute	
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
2 (Herschorn et al., 2010; Kaplan et al, 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[5]	none	1463	1466	-	MD 3.2 lower (5.15 to 1.6 lower)	HIGH
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[6]	no serious indirectness[3]	Serious[7]	none	181/1947 (9.3%)	221/1911 (11.6%)	RR 0.8 (0.67 to 0.97)	23 fewer per 1000 (from 3 fewer to 38 fewer)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	Serious[7]	none	65/1947 (3.3%)	97/1911 (5.1%)	RR 0.66 (0.48 to 0.9)	17 fewer per 1000 (from 5 fewer to 26 fewer)	MODERATE
Any adverse effect - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tolterodine ER**	**Fesoterodine**	**Relative (95% CI)**	**Absolute**	
Any adverse effect - 12 weeks											
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	very serious[8]	no serious indirectness[3]	Serious[7]	none	506/1947 (26%)	705/1911 (36.9%)	RR 0.72 (0.49 to 1.05)	103 fewer per 1000 (from 188 fewer to 18 more)	VERY LOW
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
3 (Herschorn et al., 2010; Kaplan et al, 2010; Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	291/1947 (14.9%)	513/1911 (26.8%)	RR 0.59 (0.46 to 0.74)	110 fewer per 1000 (from 70 fewer to 145 fewer)	HIGH
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Fesoterodine	Relative (95% CI)	Absolute	
No evidence reported											

1 No apparent risk of bias in the included studies

2 Heterogeneity was present (I-squared between 33% and 67%)

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate in a single zone

5 Confidence intervals around the point estimate in a single zone (MID for OAB-q = 10)

6 No heterogeneity present (I-squared < 33%)

7 Confidence intervals around point estimate cross into two zones

8 Serious heterogeneity present (I-squared > 67%)

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, ER extended release

GRADE profile I.6.10 GRADE findings for comparison of fesoterodine with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Fesoterodine	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
2 (Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	1034/1639 (63.1%)	387/812 (47.7%)	RR 1.32 (1.22 to 1.43)	153 more per 1000 (from 105 more to 205 more)	MODERATE
Patient satisfaction - 12 weeks											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Fesoterodine**	**Placebo**	**Relative (95% CI)**	**Absolute**	
5 (Chapple et al., 2007; Dmochowski et al. 2010; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	1684/2642 (63.7%)	871/1819 (47.9%)	RR 1.27 (1.2 to 1.34)	129 more per 1000 (from 96 more to 163 more)	MODERATE
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
4 (Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[5]	none	2119	1269	-	MD 0.4 lower (0.52 to 0.28 lower)	HIGH
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
7 (Chapple et al., 2007; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	serious[6]	no serious indirectness[3]	no serious imprecision[5]	none	3004	2230	-	MD 0.37 lower (0.48 to 0.26 lower)	MODERATE
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
4 (Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011)	randomised trials	no serious risk of bias[1]	serious[6]	no serious indirectness[3]	serious[4]	none	2112	1270	-	MD 1.03 lower (1.56 to 0.51 lower)	LOW
Urgency episodes/day - 12 weeks (Better indicated by lower values)											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Fesoterodine**	**Placebo**	**Relative (95% CI)**	**Absolute**	
7 (Chapple et al., 2007; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	3125	2307	-	MD 0.86 lower (1.08 to 0.64 lower)	MODERATE
Zero incontinence episodes per day - 4 weeks											
2 (Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	serious[6]	no serious indirectness[3]	serious[4]	none	770/1629 (47.3%)	274/806 (34%)	RR 1.4 (1.18 to 1.66)	136 more per 1000 (from 61 more to 224 more)	LOW
Zero incontinence episodes per day - 12 weeks											
4 (Dmochowski et al. 2010; Herschorn et al., 2010; Kaplan et al., 2010; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	very serious[7]	no serious indirectness[3]	serious[4]	none	1211/2208 (54.8%)	546/1389 (39.3%)	RR 1.38 (1.15 to 1.65)	149 more per 1000 (from 59 more to 256 more)	VERY LOW
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Fesoterodine**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
5 (Herschorn et al., 2010; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	very serious[7]	no serious indirectness[3]	no serious imprecision[8]	none	2445	1726	-	MD 5.08 higher (3.73 higher to 6.43 higher)	LOW
Dropouts - for any reason - 4 weeks											
1 (Nitti et al., 2007)	randomised trials	no serious risk of bias[9]	no serious inconsistency[10]	no serious indirectness[3]	serious[4]	none	60/283 (21.2%)	42/274 (15.3%)	RR 1.38 (0.97 to 1.98)	58 more per 1000 (from 5 fewer to 150 more)	MODERATE
Dropouts - for any reason - 12 weeks											
8 (Chapple et al., 2007; Dmochowski et al. 2010; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	504/3760 (13.4%)	366/2945 (12.4%)	RR 1.14 (1 to 1.29)	17 more per 1000 (from 0 more to 36 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Fesoterodine	Placebo	Relative (95% CI)	Absolute	
Dropouts - for adverse effects - 4 weeks											
1 (Nitti et al., 2007)	randomised trials	no serious risk of bias[8]	no serious inconsistency[9]	no serious indirectness[3]	very serious[11]	none	17/283 (6%)	11/274 (4%)	RR 1.5 (0.71 to 3.14)	20 more per 1000 (from 12 fewer to 86 more)	LOW
Dropouts - for adverse effects - 12 weeks											
8 (Chapple et al., 2007; Dmochowski et al. 2010; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[5]	none	198/3760 (5.3%)	83/2945 (2.8%)	RR 1.83 (1.41 to 2.37)	23 more per 1000 (from 12 more to 39 more)	HIGH
Any adverse effect - 4 weeks											
1 (Nitti et al., 2007)	randomised trials	no serious risk of bias[10]	no serious inconsistency[11]	no serious indirectness[3]	serious[4]	none	171/283 (60.4%)	149/274 (54.4%)	RR 1.11 (0.96 to 1.28)	60 more per 1000 (from 22 fewer to 152 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Fesoterodine**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Any adverse effect - 12 weeks											
7 (Chapple et al., 2007; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012; Huang et al., 2012)	randomised trials	no serious risk of bias[1]	very serious[7]	no serious indirectness[3]	serious[4]	none	1512/3312 (45.7%)	798/2499 (31.9%)	RR 1.5 (1.24 to 1.82)	160 more per 1000 (from 77 more to 262 more)	VERY LOW
Dry mouth - 4 weeks											
1 (Nitti et al., 2007)	randomised trials	no serious risk of bias[9]	no serious inconsistency[10]	no serious indirectness[3]	no serious imprecision[5]	none	45/283 (15.9%)	99/279 (35.5%)	RR 0.45 (0.33 to 0.61)	195 fewer per 1000 (from 138 fewer to 238 fewer)	HIGH
Dry mouth - 12 weeks											
7 (Chapple et al., 2007; Dmochowski et al.m 2010; Herschorn et al., 2010; Nitti et al., 2007; Kaplan et al., 2010; Yamaguchi et al., 2011; Weiss et al., 2012)	randomised trials	no serious risk of bias[1]	serious[6]	no serious indirectness[3]	no serious imprecision[5]	none	862/3438 (25.1%)	186/2624 (7.1%)	RR 3.37 (2.74 to 4.13)	168 more per 1000 (from 123 more to 222 more)	MODERATE
Psychological outcomes – 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Fesoterodine	Placebo	Relative (95% CI)	Absolute	
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											
1 (Huang et al., 2012)	randomised trials	no serious risk of bias[8]	no serious inconsistency[9]	no serious indirectness[3]	no serious imprecision[5]	none	303	301	-	MD 7.9 higher (0.93 to 14.87 higher)	HIGH

1 No apparent risk of bias in the included studies
2 No heterogeneity present (I-squared < 33%)
3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate cross into two zones
5 Confidence intervals around the point estimate in a single zone
6 Heterogeneity present (I-squared between 34% and 67%)
7 Serious heterogeneity present (I-squared > 67%)
8 Confidence intervals around the point estimate in a single zone (MID for OAB-q = 10)
9 No apparent risk of bias in the included study
10 Single study analysis
11 Confidence intervals around the point estimate cross ito three zones
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk,

GRADE profile I.6.11 GRADE findings for comparison of solifenacin with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											
2 (Karram et al., 2009; Vardy et al., 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	488/758 (64.4%)	342/749 (45.7%)	RR 1.41 (1.29 to 1.55)	187 more per 1000 (from 132 more to 251 more)	HIGH
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
1 (Oreskovic et al., 2012)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[4]	none	77	80	-	MD 1.79 lower (1.95 to 1.63 lower)	HIGH
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
3 (Karram et al., 2009; Yamaguchi et al., 2007; Chapple et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[7]	none	644	660	-	MD 0.82 lower (1.05 to 0.6 lower)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Placebo	Relative (95% CI)	Absolute	
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
1 (Oreskovic et al., 2012)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[7]	none	77	80	-	MD 0.77 lower (1.09 to 0.45 lower)	MODERATE
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
3 (Karram et al., 2009; Yamaguchi et al., 2007; Chapple et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[7]	none	995	979	-	MD 1.21 lower (1.5 to 0.92 lower)	MODERATE
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
3 (Karram et al., 2009; Yamaguchi et al., 2007; Vardy et al., 2009)	randomised trials	no serious risk of bias1	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	406/776 (52.3%)	278/779 (35.7%)	RR 1.46 (1.31 to 1.64)	164 more per 1000 (from 111 more to 228 more)	HIGH
Zero urgency episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero urgency episodes per day - 12 weeks											
1 (Yamaguchi et al., 2007)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[4]	none	126/400 (31.5%)	82/406 (20.2%)	OR 1.82 (1.32 to 2.51)	113 more per 1000 (from 48 more to 187 more)	HIGH
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
2 (Oreskovic et al., 2012; Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	very serious[8]	no serious indirectness[3]	no serious imprecision[9]	none	112	113	-	SMD 0.37 lower (2.04 lower to 1.31 higher)	LOW
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
2 (Vardy et al., 2009; Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious10	none	18/423 (4.3%)	28/420 (6.7%)	RR 0.64 (0.36 to 1.14)	24 fewer per 1000 (from 43 fewer to 9 more)	LOW

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Placebo	Relative (95% CI)	Absolute	
Dropouts - for any reason - 12 weeks											
6 (Karram et al., 2009; Yamaguchi et al., 2007; Vardy et al., 2009; Chapple et al., 2004; Chapple et al., 2004b; Cardozo et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[7]	none	180/1773 (10.2%)	215/1761 (12.2%)	RR 0.83 (0.69 to 1)	21 fewer per 1000 (from 38 fewer to 0 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	very serious[10]	none	1/37 (2.7%)	0/38 (0%)	RR 3.08 (0.13 to 73.25)	--	LOW
Dropouts - for adverse effects - 12 weeks											
6 (Karram et al., 2009; Yamaguchi et al., 2007; Vardy et al., 2009; Chapple et al., 2004; Chapple et al., 2004b; Cardozo et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness3	serious[7]	none	74/1773 (4.2%)	62/1761 (3.5%)	RR 1.17 (0.83 to 1.66)	6 more per 1000 (from 6 fewer to 23 more)	MODERATE
Any adverse effect - 4 weeks											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[7]	none	12/37 (32.4%)	6/38 (15.8%)	RR 2.05 (0.86 to 4.9)	166 more per 1000 (from 22 fewer to 616 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Solifenacin**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Any adverse effect - 12 weeks											
3 (Karram et al., 2009; vardy et al., 2009; Chapple et al., 2004b)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	272/795 (34.2%)	144/787 (18.3%)	RR 1.86 (1.56 to 2.21)	157 more per 1000 (from 102 more to 221 more)	HIGH
Dry mouth - 4 weeks											
1 (Chapple et al, 2004b)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	very serious[10]	none	5/37 (13.5%)	0/38 (0%)	RR 11.29 (0.65 to 197.21)	-	LOW
Dry mouth - 12 weeks											
6 (Karram et al., 2009; Yamaguchi et al., 2007; Vardy et al., 2009; Chapple et al., 2004; Chapple et al., 2004b; Cardozo et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	279/1773 (15.7%)	85/1761 (4.8%)	RR 3.15 (2.5 to 3.98)	104 more per 1000 (from 72 more to 144 more)	HIGH
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Solifenacin	Placebo	Relative (95% CI)	Absolute	
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included studies
2 No heterogeneity present (I-squared < 33%)
3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate in a single zone
5 No apparent risk of bias in the included study
6 Single study analysis
7 Confidence intervals around the point estimate cross into two zones
8 Serious heterogeneity present (I-squared > 67%)
9 Confidence intervals around the point estimate in a singles score when SMD is converted into IIQ (MID = 49)
10 Confidence intervals around the point estimate cross into three zones
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative ris

GRADE profile I.6.12 GRADE findings for comparison of darifenacin with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Darifenacin	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Darifenacin	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
1 (Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	80/266 (30.1%)	21/134 (15.7%)	RR 1.92 (1.24 to 2.96)	144 more per 1000 (from 38 more to 307 more)	MODERATE
Zero urgency episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Darifenacin	Placebo	Relative (95% CI)	Absolute	
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
No evidence reported											
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
4 (Chapple et al., 2007; Hill et al., 2006; Steers et al., 2005; Haab et al., 2004)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	67/872 (7.7%)	49/536 (9.1%)	RR 0.8 (0.56 to 1.15)	18 fewer per 1000 (from 40 fewer to 14 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
4 (Chapple et al., 2007; Hill et al., 2006; Steers et al., 2005; Haab et al., 2004)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	very serious[7]	none	35/872 (4%)	18/536 (3.4%)	RR 1.01 (0.55 to 1.84)	0 more per 1000 (from 15 fewer to 28 more)	LOW

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Darifenacin	Placebo	Relative (95% CI)	Absolute	
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
3 (Chapple et al., 2007; Hill et al., 2006; Steers et al., 2005; Haab et al., 2004)	randomised trials	no serious risk of bias[5]	very serious[8]	no serious indirectness[3]	serious[4]	none	281/603 (46.6%)	144/407 (35.4%)	RR 1.41 (1.05 to 1.89)	145 more per 1000 (from 18 more to 315 more)	VERY LOW
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
4 (Chapple et al., 2007; Hill et al., 2006; Haab et al., 2004)	randomised trials	no serious risk of bias[5]	very serious[8]	no serious indirectness[3]	very serious[7]	none	137/872 (15.7%)	43/536 (8%)	RR 1.93 (0.52 to 7.19)	75 more per 1000 (from 39 fewer to 497 more)	VERY LOW
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Darifenacin	Placebo	Relative (95% CI)	Absolute	
Post-void residual volume - 12 weeks (Better indicated by lower values)											
1 (Chapple et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[9]	none	266	133	-	MD 5.4 lower (42.29 lower to 31.49 higher)	HIGH

[1] No apparent risk of bias in the included study

[2] Single study analysis

[3] Population, intervention and outcome as specified in the review protocol

[4] Confidence intervals around the point estimate cross into two zones

[5] No apparent risk of bias in the included studies

[6] No heterogeneity present (I-squared < 33%)

[7] Confidence intervals around the point estimate cross into three ones

[8] Serious heterogeneity present (I-squared > 67%)

[9] Confidence intervals around the point estimate in a single one

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk

GRADE profile I.6.13 GRADE findings for comparison of tolterodine immediate release with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 12 weeks											
3 (Abrams et al., 1998; Van Kerrebroeck et al., 2001; Millard et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	439/761 (57.7%)	268/629 (42.6%)	RR 1.34 (1.14 to 1.58)	145 more per 1000 (from 60 more to 247 more)	MODERATE
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
1 (Jacquetin et al., 2001)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	79	39	-	MD 0.9 lower (1.62 to 0.18 lower)	MODERATE
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
5 (Chapple et al., 2004; Abrams et al., 1998; Drutz et al., 1993; Van Kerrebroeck et al., 2001; Millard et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[7]	none	940	788	-	MD 0.47 lower (0.69 to 0.26 lower)	HIGH
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
1 (Chapple et al., 2004)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	250	248	-	MD 0.64 lower (1.28 lower to 0 higher)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Placebo	Relative (95% CI)	Absolute	
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
1 (Millard et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	22/116 (19%)	6/55 (10.9%)	RR 1.74 (0.75 to 4.04)	81 more per 1000 (from 27 fewer to 332 more)	MODERATE
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
1 (Chapple et al., 2004b)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	32	33	-	MD 7.30 higher (2.7 lower to 17.3 higher)	MODERATE
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Placebo	Relative (95% CI)	Absolute	
Dropouts - for any reason - 4 weeks											
2 (Chapple et al., 2004b; Malone-Lee et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	14/110 (12.7%)	10/81 (12.3%)	RR 1.06 (0.49 to 2.32)	7 more per 1000 (from 63 fewer to 163 more)	LOW
Dropouts - for any reason - 12 weeks											
6 (Chapple et al., 2004; Chapple et al., 2004b; Drutz et al., 1993; Malone-Lee et al., 2001; Van Kerrebroeck et al., 2001; Millard et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[7]	none	133/1128 (11.8%)	121/976 (12.4%)	RR 0.95 (0.75 to 1.2)	6 fewer per 1000 (from 31 fewer to 25 more)	HIGH
Dropouts - for adverse effects - 4 weeks											
4 (Chapple et al., 2004b; Malone-Lee et al., 2001; Jonas et al., 1997; Jacquetin et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[8]	none	13/312 (4.2%)	5/176 (2.8%)	RR 1.18 (0.38 to 3.66)	5 more per 1000 (from 18 fewer to 76 more)	LOW
Dropouts - for adverse effects - 12 weeks											
6 (Chapple et al., 2004; Chapple et al., 2004b; Drutz et al., 1993; Abrams et al., 1998; Van Kerrebroeck et al., 2001; Millard et al., 1999)	randomised trials	no serious risk of bias[1]	very serious[9]	no serious indirectness[3]	very serious[8]	none	59/1173 (5%)	26/990 (2.6%)	RR 1.48 (0.54 to 4.08)	13 more per 1000 (from 12 fewer to 81 more)	VERY LOW

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Placebo	Relative (95% CI)	Absolute	
Any adverse effect - 4 weeks											
4 (Chapple et al., 2004b; Malone-Lee et al., 2001; Jonas et al., 1997; Jacquetin et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[10]	no serious indirectness[3]	serious[4]	none	152/312 (48.7%)	66/176 (37.5%)	RR 1.26 (0.9 to 1.76)	97 more per 1000 (from 38 fewer to 285 more)	MODERATE
Any adverse effect - 12 weeks											
5 (Chapple et al., 2004b; Drutz et al., 1993; Abrams et al., 1998; Millard et al., 1999; Millard et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[7]	none	349/466 (74.9%)	171/258 (66.3%)	RR 1.05 (0.95 to 1.17)	33 more per 1000 (from 33 fewer to 113 more)	HIGH
Dry mouth - 4 weeks											
4 (Chapple et al., 2004b; Malone-Lee et al., 2001; Jonas et al., 1997; Jacquetin et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[7]	none	89/312 (28.5%)	8/176 (4.5%)	RR 5.69 (2.91 to 11.12)	213 more per 1000 (from 87 more to 460 more)	HIGH
Dry mouth - 12 weeks											
7 (Chapple et al., 2004; Chapple et al., 2004b; Drutz et al., 1993; Abrams et al., 1998; Malone-Lee et al., 2001; Van Kerrebroeck et al., 2001; Millard et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[7]	none	391/1246 (31.4%)	84/1033 (8.1%)	RR 3.35 (2.62 to 4.28)	191 more per 1000 (from 132 more to 267 more)	HIGH

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine IR	Placebo	Relative (95% CI)	Absolute	
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											
No evidence reported											

1 No apparent risk of bias in the included studies

2 No heterogeneity present (I-squared < 33%)

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate cross into two zones

5 No apparent risk of bias in the included study

6 Single study analysis

7 Confidence intervals around the point estimate in a single zone

8 Confidence intervals around the point estimate cross into three zones

9 Serious heterogeneity present (I-squared > 67%)

10 Heterogeneity present (I-squared between 33% and 67%)

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk

GRADE profile I.6.14 GRADE findings for comparison of tolterodine extended release with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
2 (Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	958/1657 (57.8%)	387/812 (47.7%)	RR 1.21 (1.12 to 1.32)	100 more per 1000 (from 57 more to 153 more)	HIGH
Patient satisfaction - 12 weeks											
7 (Chapple et al., 2007; Herschorn et al., 2010; Rackley et al., 2006; Rogers et al., 2008; Kaplan et al., 2010; Homma et al., 2003; Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	very serious[5]	no serious indirectness[3]	serious[4]	none	1896/3325 (57%)	1031/2359 (43.7%)	RR 1.3 (1.16 to 1.45)	131 more per 1000 (from 70 more to 197 more)	VERY LOW
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
2 (Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[6]	none	1558	763	-	MD 0.26 lower (0.39 to 0.12 lower)	HIGH

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Placebo	Relative (95% CI)	Absolute	
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
5 (Chapple et al., 2007; Herschorn et al., 2010; Rogers et al., 2008; Kaplan et al., 2010; Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	very serious[5]	no serious indirectness[3]	no serious imprecision[6]	none	2471	1655	-	MD 0.29 lower (0.4 to 0.18 lower)	LOW
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
2 (Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	serious[7]	no serious indirectness[3]	serious[4]	none	1560	764	-	MD 0.9 lower (1.49 to 0.31 lower)	LOW
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
3 (Chapple et al., 2007; Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	very serious[5]	no serious indirectness[3]	serious[4]	none	1847	1043	-	MD 0.89 lower (1.54 to 0.25 lower)	VERY LOW
Zero incontinence episodes per day - 4 weeks											
2 (Herschorn et al., 2010; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	serious[7]	no serious indirectness[3]	serious[4]	none	722/1647 (43.8%)	274/806 (34%)	RR 1.31 (1.08 to 1.59)	105 more per 1000 (from 27 more to 201 more)	LOW

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Placebo	Relative (95% CI)	Absolute	
Zero incontinence episodes per day - 12 weeks											
4 (Herschorn et al., 2010; Malone-Lee et al., 2009; Rogers et al., 2008; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	serious[7]	no serious indirectness[3]	serious[4]	none	1030/1945 (53%)	475/1090 (43.6%)	RR 1.2 (1.07 to 1.34)	87 more per 1000 (from 31 more to 148 more)	LOW
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by higher values)											
3 (Herschorn et al., 2010; Rogers et al., 2008; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	very serious[5]	no serious indirectness[3]	no serious imprecision[8]	none	1645	913	-	MD1.43 higher (from 2.43 lower to 5.28 higher)	LOW
Dropouts - for any reason - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tolterodine ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Dropouts - for any reason - 12 weeks											
8 (Chapple et al., 2007; Herschorn et al., 2010; Malone-Lee et al., 2009; Rackley et al., 2006; Rogers et al., 2008; Kaplan et al., 2010; Homma et al., 2003; Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	377/3490 (10.8%)	324/2501 (13%)	RR 0.89 (0.77 to 1.02)	14 fewer per 1000 (from 30 fewer to 3 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
8 (Chapple et al., 2007; Herschorn et al., 2010; Malone-Lee et al., 2009; Rackley et al., 2006; Rogers et al., 2008; Kaplan et al., 2010; Homma et al., 2003; Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	serious[7]	no serious indirectness[3]	serious[4]	none	124/3490 (3.6%)	52/2501 (2.1%)	RR 1.77 (0.92 to 3.43)	16 more per 1000 (from 2 fewer to 51 more)	LOW
Any adverse effect - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Placebo	Relative (95% CI)	Absolute	
Any adverse effect - 12 weeks											
6 (Chapple et al., 2007; Herschorn et al., 2010; Malone-Lee et al., 2009; Rackley et al., 2006; Rogers et al., 2008; Kaplan et al., 2010)	randomised trials	no serious risk of bias[1]	serious[7]	no serious indirectness[3]	serious[4]	none	892/2743 (32.5%)	485/1871 (25.9%)	RR 1.28 (1.13 to 1.45)	73 more per 1000 (from 34 more to 117 more)	LOW
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
7 (Chapple et al., 2007; Herschorn et al., 2010; Rackley et al., 2006; Rogers et al., 2008; Kaplan et al., 2010; Homma et al., 2003; Van Kerrebroeck et al., 2001)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[6]	none	554/3325 (16.7%)	144/2359 (6.1%)	RR 2.67 (2.14 to 3.33)	102 more per 1000 (from 70 more to 142 more)	HIGH
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tolterodine ER	Placebo	Relative (95% CI)	Absolute	
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included studies

2 No heterogeneity present (I-squared < 33%)

3 Population, intervention and outcome as specified in the review protocol

4 Confidence interval around the point estimate cross into two zones

5 Serious heterogeneity present (I-squared > 67%)

6 Confidence intervals around the point estimate in a single zone

7 Heterogeneity present (I-squared between 33% and 67%)

8 Confidence intervals around the point estimate in a single zone (MID for OAB-q = 10)

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, ER extended release

GRADE profile I.6.15 GRADE findings for comparison of oxybutynin immediate release with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
1 (Madersbacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	96/145 (66.2%)	43/72 (59.7%)	RR 1.11 (0.89 to 1.38)	66 more per 1000 (from 66 fewer to 227 more)	HIGH

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 12 weeks											
1 (Abrams et al., 1998)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	58/118 (49.2%)	27/57 (47.4%)	RR 1.04 (0.75 to 1.44)	19 more per 1000 (from 118 fewer to 208 more)	MODERATE
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
3 (Abrams et al., 1998; Zat'ura et al., 2010; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[4]	none	153	127	-	MD 0.77 lower (1.26 to 0.28 lower)	HIGH
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
1 (Zat'ura et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	26	54	-	MD 2.6 lower (4.47 to 0.73 lower)	MODERATE
Zero incontinence episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin IR**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero incontinence episodes per day - 12 weeks											
1 (Zat'ura et al., 2010)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	17/27 (63%)	17/54 (31.5%)	RR 2 (1.23 to 3.26)	315 more per 1000 (from 72 more to 711 more)	HIGH
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
2 (Madersbacher et al., 1999; Thuroff et al., 1991)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	very serious[7]	none	24/208 (11.5%)	12/124 (9.7%)	RR 1.2 (0.62 to 2.33)	19 more per 1000 (from 37 fewer to 129 more)	LOW

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Placebo	Relative (95% CI)	Absolute	
Dropouts - for any reason - 12 weeks											
2 (Zat'ura et al., 2010; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	38/139 (27.3%)	11/110 (10%)	RR 2.15 (1.14 to 4.07)	115 more per 1000 (from 14 more to 307 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
1 (Thuroff et al., 1991)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[7]	none	2/63 (3.2%)	0/52 (0%)	RR 4.14 (0.2 to 84.38)	-	LOW
Dropouts - for adverse effects - 12 weeks											
3 (Abrams et al., 1998; Zat'ura et al., 2010; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	45/257 (17.5%)	11/167 (6.6%)	RR 2.06 (0.99 to 4.26)	70 more per 1000 (from 1 fewer to 215 more)	MODERATE
Any adverse effect - 4 weeks											
2 (Madersbacher et al., 1999; Thuroff et al., 1991)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[8]	none	145/208 (69.7%)	47/124 (37.9%)	RR 1.8 1.41 to 2.29)	303 more per 1000 (from 155 more to 489 more)	HIGH

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Placebo	Relative (95% CI)	Absolute	
Any adverse effect - 12 weeks											
3 (Abrams et al., 1998; Zat'ura et al., 2010; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	serious[9]	no serious indirectness[3]	no serious imprecision[4]	none	223/257 (86.8%)	93/167 (55.7%)	RR 1.23 (1.03 to 1.47)	128 more per 1000 (from 17 more to 262 more)	MODERATE
Dry mouth - 4 weeks											
1 (Thuroff et al., 1991)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[8]	none	30/63 (47.6%)	6/52 (11.5%)	RR 4.13 (1.86 to 9.15)	361 more per 1000 (from 99 more to 940 more)	HIGH
Dry mouth - 12 weeks											
3 (Abrams et al., 1998; Zat'ura et al., 2010; Drutz et al., 1999)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[8]	none	184/257 (71.6%)	20/167 (12%)	RR 4.5 (3.02 to 6.69)	419 more per 1000 (from 242 more to 681 more)	HIGH
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin IR	Placebo	Relative (95% CI)	Absolute	
Post-void residual volume - 4 weeks (Better indicated by lower values)											
1 (Thuroff et al., 1991)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[8]	none	59	46	-	MD 28.9 higher (25.9 to 31.9 higher)	HIGH
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study
2 Single study analysis
3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate cross into two zones
5 No apparent risk of bias in the included studies
6 No heterogeneity present (I-squared < 33%)
7 Confidence interval around the point estimate crosses into three zones
8 Confidence intervals around the point estimate in a single zone
9 Heterogeneity present (I-squared between 33% and 67%)
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release

GRADE profile I.6.16 GRADE findings for comparison of transdermal oxybutynin with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin TDS	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin TDS	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
1 (Dmochowski et al., 2002)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	123	130	-	MD 0.4 lower (1.08 lower to 0.28 higher)	HIGH
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											
Zero incontinence episodes per day - 12 weeks											
1 (Dmochowski et al., 2002)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	16/125 (12.8%)	10/132 (7.6%)	RR 1.69 (0.8 to 3.58)	52 more per 1000 (from 15 fewer to 195 more)	MODERATE
Zero urgency episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin TDS	Placebo	Relative (95% CI)	Absolute	
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
No evidence reported											
Dropouts - for any reason - 4 weeks											
1 (Cartwright et al., 2011)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	11/48 (22.9%)	7/48 (14.6%)	RR 1.57 (0.67 to 3.71)	83 more per 1000 (from 48 fewer to 395 more)	LOW
Dropouts - for any reason - 12 weeks											
No evidence reported											
Dropouts - for adverse effects - 4 weeks											
1 (Cartwright et al., 2011)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	4/48 (8.3%)	2/48 (4.2%)	RR 2 (0.38 to 10.41)	42 more per 1000 (from 26 fewer to 392 more)	LOW
Dropouts - for adverse effects - 12 weeks											
No evidence reported											
Any adverse effect - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin TDS**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
1 (Dmochowski et al., 2002)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	12/125 (9.6%)	11/132 (8.3%)	RR 1.15 (0.53 to 2.51)	12 more per 1000 (from 39 fewer to 126 more)	LOW
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate cross into two zones

5 Confidence intervals around teh point estimate cross into three zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, TDS transdermal solution

GRADE profile I.6.17 GRADE findings for comparison of oxybutynin topical gel with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin TG	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
1 (Staskin et al. 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	389	400	-	MD 0.5 lower (0.91 to 0.09 lower)	HIGH
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Oxybutynin TG**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero incontinence episodes per day - 12 weeks											
1 (Staskin et al. 2009))	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	108/389 (27.8%)	69/400 (17.3%)	RR 1.61 (1.23 to 2.1)	105 more per 1000 (from 40 more to 190 more)	MODERATE
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL- 12 weeks											
No evidence reported											
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
1 (Staskin et al. 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	43/389 (11.1%)	45/400 (11.3%)	RR 0.98 (0.66 to 1.46)	2 fewer per 1000 (from 38 fewer to 52 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin TG	Placebo	Relative (95% CI)	Absolute	
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
1 (Staskin et al. 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	19/389 (4.9%)	13/400 (3.3%)	RR 1.5 (0.75 to 3)	16 more per 1000 (from 8 fewer to 65 more)	MODERATE
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
1 (Staskin et al. 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	221/389 (56.8%)	193/400 (48.3%)	RR 1.18 (1.03 to 1.35)	87 more per 1000 (from 14 more to 169 more)	MODERATE
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
1 (Staskin et al. 2009)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	27/389 (6.9%)	11/400 (2.8%)	RR 2.52 (1.27 to 5.02)	42 more per 1000 (from 7 more to 111 more)	HIGH

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oxybutynin TG	Placebo	Relative (95% CI)	Absolute	
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence interval around the point estimate in a single zone

5 Confidence intervals around the point estimate cross into two zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, TG topical gel

GRADE profile I.6.18 GRADE findings for comparison of propiverine immediate release with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Propiverine IR**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction - 4 weeks											
1 (Madersbacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	104/149 (69.8%)	43/72 (59.7%)	RR 1.17 (0.94 to 1.45)	102 more per 1000 (from 36 fewer to 269 more)	MODERATE
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
1 (Dorschner et al., 2000)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	18/43 (41.9%)	13/45 (28.9%)	RR 1.45 (0.81 to 2.58)	130 more per 1000 (from 55 fewer to 456 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Propiverine IR**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero incontinence episodes per day - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											
1 (Dorschner et al., 2000)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[5]	none	15/49 (30.6%)	5/49 (10.2%)	OR 3.88 (1.28 to 11.74)	204 more per 1000 (from 25 more to 470 more)	HIGH
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
No evidence reported											
Dropouts - for any reason - 4 weeks											
1 (Madersbacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[6]	none	19/149 (12.8%)	7/72 (9.7%)	RR 1.31 (0.58 to 2.98)	30 more per 1000 (from 41 fewer to 193 more)	LOW
Dropouts - for any reason - 12 weeks											
No evidence reported											
Dropouts - for adverse effects - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Propiverine IR**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Dropouts - for adverse effects - 12 weeks											
No evidence reported											
Any adverse effect - 4 weeks											
1 (Madersbacher et al., 1999)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	95/149 (63.8%)	30/72 (41.7%)	RR 1.53 (1.13 to 2.06)	221 more per 1000 (from 54 more to 442 more)	MODERATE
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
No evidence reported											
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
1 (Dorschner et al., 2000)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[5]	none	49	49	-	MD 1.3 higher (2.83 lower to 5.43 higher)	HIGH

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Propiverine IR	Placebo	Relative (95% CI)	Absolute	
Post-void residual volume - 12 weeks (Better indicated by lower values)											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention a nd outcome as specified in the review protocol

4 Confidence intervals around the point estimate cross into two zones

5 Confidence intervals around the point estimate in a single zone

6 Confidence intervals around the point estimate cross into three zones

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, IR immediate release

GRADE profile I.6.19 GRADE findings for comparison of propiverine extended release with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Propiverine ER	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	245/391 (62.7%)	87/202 (43.1%)	RR 1.45 (1.22 to 1.73)	194 more per 1000 (from 95 more to 314 more)	HIGH
Patient satisfaction - 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Propiverine ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	363	187	-	MD 0.81 lower (1.25 to 0.37 lower)	MODERATE
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
No evidence reported											
Urgency episodes/day - 4 weeks (Better indicated by lower values)											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	363	187	-	MD 0.65 lower (1.32 lower to 0.02 higher)	MODERATE
Urgency episodes/day - 12 weeks (Better indicated by lower values)											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	199/391 (50.9%)	76/202 (37.6%)	RR 1.35 (1.1 to 1.66)	132 more per 1000 (from 38 more to 248 more)	MODERATE
Zero incontinence episodes per day - 12 weeks											
No evidence reported											
Zero urgency episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Propiverine ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	363	187	-	MD 3.65 lower (7.44 lower to 0.14 higher)	MODERATE
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
No evidence reported											
Dropouts - for any reason - 4 weeks											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	23/391 (5.9%)	11/202 (5.4%)	RR 1.08 (0.54 to 2.17)	4 more per 1000 (from 25 fewer to 64 more)	LOW
Dropouts - for any reason - 12 weeks											
No evidence reported											
Dropouts - for adverse effects - 4 weeks											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	11/391 (2.8%)	1/202 (0.5%)	RR 5.68 (0.74 to 43.71)	23 more per 1000 (from 1 fewer to 211 more)	LOW
Dropouts - for adverse effects - 12 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Propiverine ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Any adverse effect - 4 weeks											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	134/391 (34.3%)	41/202 (20.3%)	RR 1.69 (1.24 to 2.29)	140 more per 1000 (from 49 more to 262 more)	MODERATE
Any adverse effect - 12 weeks											
No evidence reported											
Dry mouth - 4 weeks											
1 (Junemann et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[6]	none	85/391 (21.7%)	13/202 (6.4%)	RR 3.38 (1.93 to 5.9)	153 more per 1000 (from 60 more to 315 more)	HIGH
Dry mouth - 12 weeks											
No evidence reported											
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks (Better indicated by lower values)											
No evidence reported											
Post-void residual volume - 12 weeks (Better indicated by lower values)											
No evidence reported											

1 No apparent risk of bias in the included study
2 Single study analysis
3 Population, intervention and outcome as specified in the review protocol
4 Confidence intervals around the point estimate cross into two zones
5 Confidence intervals around the point estimate cross into three zones
6 Confidence interval around the point estimate in a single zone
CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, ER extended release

GRADE profile I.6.20 GRADE findings for comparison of trospium with placebo for overactive bladder

Quality assessment							**Number of patients**		**Effect**		**Quality**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trospium**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction - 4 weeks											
No evidence reported											
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks											
No evidence reported											
Incontinence episodes/day - 12 weeks											
No evidence reported											
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trospium**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero incontinence episodes per day - 12 weeks											
1 (Zinner et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	46/262 (17.6%)	24/261 (9.2%)	RR 1.91 (1.2 to 3.03)	84 more per 1000 (from 18 more to 187 more)	HIGH
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks											
No evidence reported											
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
1 (Zinner et al., 2004)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	235	236	-	MD 18 lower (33.52 to 2.48 lower)	MODERATE
Dropouts - for any reason - 4 weeks											
No evidence reported											
Dropouts - for any reason - 12 weeks											
2 (Zinner et al., 2004; Rudy et al., 2006)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	85/591 (14.4%)	75/590 (12.7%)	RR 1.13 (0.84 to 1.5)	17 more per 1000 (from 20 fewer to 64 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trospium**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
2 (Zinner et al., 2004; Rudy et al., 2006)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	serious[4]	none	48/591 (8.1%)	31/590 (5.3%)	RR 1.55 (1 to 2.39)	29 more per 1000 (from 0 more to 73 more)	MODERATE
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
1 (Rudy et al., 2006)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	196/329 (59.6%)	153/329 (46.5%)	RR 1.28 (1.11 to 1.48)	130 more per 1000 (from 51 more to 223 more)	MODERATE
Dry mouth - 4 weeks											
No evidence reported											
Dry mouth - 12 weeks											
2 (Zinner et al., 2004; Rudy et al., 2006)	randomised trials	no serious risk of bias[5]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[7]	none	122/591 (20.6%)	34/590 (5.8%)	RR 3.57 (2.49 to 5.14)	148 more per 1000 (from 86 more to 239 more)	HIGH
Psychological outcomes – 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trospium	Placebo	Relative (95% CI)	Absolute	
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included study

2 Single study analysis

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate cross into two zones

5 No apparent risk of bias in the included studies

6 No heterogeneity present (I-squared < 33%)

7 Confidence intervals around the point estimate in a single zone

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk,

GRADE profile I.6.21 GRADE findings for comparison of trospium extended release with placebo for overactive bladder

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trospium ER	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trospium ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction - 12 weeks											
No evidence reported											
Incontinence episodes/day - 4 weeks (Better indicated by lower values)											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	559	576	-	MD 0.66 lower (0.96 to 0.36 lower)	HIGH
Incontinence episodes/day - 12 weeks (Better indicated by lower values)											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	559	576	-	MD 0.65 lower (1.01 to 0.3 lower)	MODERATE
Urgency episodes/day - 4 weeks											
No evidence reported											
Urgency episodes/day - 12 weeks											
No evidence reported											
Zero incontinence episodes per day - 4 weeks											
1 (Dmochowski et al., 2008)	randomised trials	no serious risk of bias[6]	no serious inconsistency[7]	no serious indirectness[3]	serious[5]	none	78/280 (27.9%)	48/284 (16.9%)	RR 1.65 (1.2 to 2.27)	110 more per 1000 (from 34 more to 215 more)	MODERATE

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trospium ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Zero incontinence eopisodes per day - 12 weeks											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	149/578 (25.8%)	89/587 (15.2%)	RR 1.7 (1.34 to 2.14)	106 more per 1000 (from 52 more to 173 more)	HIGH
Zero urgency episodes per day - 4 weeks											
No evidence reported											
Zero urgency episodes per day - 12 weeks											
No evidence reported											
Incontinence specific QoL - 4 weeks (Better indicated by lower values)											
1 (Staskin et al., 2007)	randomised trials	no serious risk of bias[6]	no serious inconsistency[7]	no serious indirectness[3]	no serious imprecision[5]	none	292	300	-	MD 3.54 lower (5.21 to 1.87 lower)	HIGH
Incontinence specific QoL - 12 weeks (Better indicated by lower values)											
1 (Staskin et al., 2007)	randomised trials	no serious risk of bias[6]	no serious inconsistency[7]	no serious indirectness[3]	serious[5]	none	292	300	-	MD 3.40 lower (5.1 to 1.7 lower)	MODERATE
Dropouts - for any reason - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trospium ER**	**Placebo**	**Relative (95% CI)**	**Absolute**	
Dropouts - for any reason - 12 weeks											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[5]	none	72/578 (12.5%)	66/587 (11.2%)	RR 1.11 (0.81 to 1.51)	12 more per 1000 (from 21 fewer to 57 more)	MODERATE
Dropouts - for adverse effects - 4 weeks											
No evidence reported											
Dropouts - for adverse effects - 12 weeks											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	serious[8]	no serious indirectness[3]	serious[5]	none	30/578 (5.2%)	19/587 (3.2%)	RR 1.58 (0.78 to 3.21)	19 more per 1000 (from 7 fewer to 72 more)	LOW
Any adverse effect - 4 weeks											
No evidence reported											
Any adverse effect - 12 weeks											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	serious[8]	no serious indirectness[3]	serious[5]	none	234/578 (40.5%)	183/587 (31.2%)	RR 1.31 (1.04 to 1.66)	97 more per 1000 (from 12 more to 206 more)	LOW
Dry mouth - 4 weeks											
No evidence reported											

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trospium ER	Placebo	Relative (95% CI)	Absolute	
Dry mouth - 12 weeks											
2 (Dmochowski et al., 2008; Staskin et al., 2007)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	64/578 (11.1%)	22/587 (3.7%)	RR 2.95 (1.84 to 4.72)	73 more per 1000 (from 31 more to 139 more)	HIGH
Psychological outcomes – 4 weeks											
No evidence reported											
Psychological outcomes – 12 weeks											
No evidence reported											
Post-void residual volume - 4 weeks											
No evidence reported											
Post-void residual volume - 12 weeks											
No evidence reported											

1 No apparent risk of bias in the included studies

2 No heterogeneity present (I-squared < 33%)

3 Population, intervention and outcome as specified in the review protocol

4 Confidence intervals around the point estimate in a single zone

5 Confidence intervals around the point estimate cross into two zones

6 No apparent risk of bias in the included study

7 Single study analysis

8 Heterogeneity present (I-squared between 33% and 67%)

CI confidence interval, QOL quality of life, OAB overactive bladder, MD minimal difference, RR relative risk, ER extended release

GRADE profile I.8.1 GRADE findings for comparison of Botulinum toxin A 200U with placebo

Quality assessment							Summary of findings				
							Number of women		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A 200U	Placebo	Relative (95% CI)	Absolute (95% CI)	
Patient satisfaction with treatment (assessed with: self-report as 'improved' or 'not improved')											
No evidence reported											
Incontinence episodes (Better indicated by lower values)											
4 (Sahai et al., 2007; Flynn et al., 2009; Tincello et al., 2011; Dmochowski et al., 2010)	RCT	no serious risk of bias[1]	very serious[2]	no serious indirectness[3]	no serious imprecision[4]	none	196	180	-	MD 1.3 lower (2.58 to 0.02 lower)	LOW
Urgency episodes (Better indicated by lower values)											
3 (Sahai et al., 2007; Tincello et al., 2011; Dmochowski et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	185	173	-	MD 2.05 lower (2.87 to 1.22 lower)	HIGH

Quality assessment							Summary of findings				
							Number of women		Effect		
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A 200U	Placebo	Relative (95% CI)	Absolute (95% CI)	Quality
Continence status (zero episodes per day) (assessed with: self-rated as 'continent' or 'incontinent')											
3 (Sahai et al., 2007; Tincello et al., 2011; Dmochowski et al., 2010)	RCT	no serious risk of bias[1]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[5]	none	68/185 (36.8%)	18/174 (10.3%)	RR 3.32 (1.81 to 6.07)	240 more per 1000 (from 84 more to 524 more)	HIGH
Incontinence QOL (Better indicated by lower values)											
3 (Tincello et al., 2011; Sahai et al., 2007; Brubaker et al., 2008)	RCT	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	160	144	-	SMD 0.71 lower (0.94 to 0.48 lower)	HIGH
Adverse effects (assessed with: need to self-catheterise)											
5 (Flynn et al., 2009; Sahai et al., 2007; Tincello et al., 2011; Dmochowski et al., 2010; Brubaker et al., 2008)	RCT	no serious risk of bias[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[4]	none	48/232 (20.7%)	4/202 (2%)	RR 5.79 (2.48 to 13.5)	95 more per 1000 (from 29 more to 248 more)	HIGH

Quality assessment							Summary of findings				
							Number of women		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A 200U	Placebo	Relative (95% CI)	Absolute (95% CI)	
Psychological outcomes											
No evidence reported											
Post-void residual volume											
No evidence reported											

1 While some studies were terminated early, these did not appear to influence the findings on this outcome

2 Inconsistency was significant with I-squared > 60%

3 Population and intervention were as specified in the protocol. Some studies reported outcomes at other time-points than 6 months but this did not appear to affect the finding for this outcome

4 Confidence intervals in a single zone as specified in methodology chapter

5 No inconsistency observed

6 Some insistency observed (I-squared = 24%) but not enough to query the findings for this outcome

CI confidence interval, MD minimal difference, QOL quality of life, RR relative risk, SMD standardised minimal difference, U units

GRADE profile I.8.2 GRADE findings for comparison of Botulinum toxin A 200U with Botulinum toxin A 100U

Quality assessment							Summary of findings				
							Number of women		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A 200U	Botulinum toxin A 100U	Relative (95% CI)	Absolute (95% CI)	
Patient satisfaction with treatment											
No evidence reported											
Incontinence episodes (Better indicated by lower values)											

Quality assessment							Summary of findings				
							Number of women		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A 200U	Botulinum toxin A 100U	Relative (95% CI)	Absolute (95% CI)	
1 (Dmochowski et al., 2010)	RCT	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	53	54	-	MD 0.13 lower (1.04 lower to 0.78 higher)	MODERATE
Urgency episodes (Better indicated by lower values)											
1 (Dmochowski et al., 2010)	RCT	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[5]	none	53	54	-	MD 0.12 higher (1.26 lower to 1.5 higher)	VERY LOW
Continence status											
2 (Altaweel et al., 2011; Dmochowski et al., 2010)	RCT	serious[6]	no serious inconsistency[7]	no serious indirectness[3]	serious[8]	none	32/64 (50%)	16/65 (24.6%)	RR 2.01 (1.24 to 3.26)	249 more per 1000 (from 59 more to 556 more)	LOW
Incontinence QOL (Better indicated by lower values)											
No evidence reported											
Adverse effects											

Quality assessment							Summary of findings				
							Number of women		Effect		Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A 200U	Botulinum toxin A 100U	Relative (95% CI)	Absolute (95% CI)	
2 (Dmochowski et al., 2010; Altaweel et al., 2011)	RCT	no serious risk of bias[1]	serious[9]	no serious indirectness[3]	serious[8]	none	13/64 (20.3%)	1/65 (1.5%)	RR 6.05 (0.43 to 84.89)	78 more per 1000 (from 9 fewer to 1000 more)	LOW
Psychological outcomes											
No evidence reported											
Post void residual volume (Better indicated by lower values)											
1 (Altaweel et al., 2011)	RCT	serious[10]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	11	11	-	MD 16 higher (19.24 lower to 51.24 higher)	MODERATE

[1] Study was terminated early

[2] Single study analysis

[3] Population, intervention and outcome as specified in the protocol

[4] Point estimate and confidence intervals in a single zone

[5] Confidence intervals cross into three zones

[6] The largest study was terminated early and this study has most weight in the analysis (94.8%)

[7] Inconsistency was not observed

[8] Confidence intervals cross into two zones

[9] Inconsistency (I-squared = 54%) was moderate - between 30% and 60%

[10] Randomisation was open to bias

CI confidence interval, MD minimal difference, QOL quality of life, RR relative risk, U units

Table I.8.3 GRADE findings for comparison of botulinum toxin A 100U with placebo

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A	Placebo	Relative (95% CI)	Absolute	
Patient satisfaction with treatment											
1 (Dowson et al., 2011)	randomised trials	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious	none	2/10 (20%)	0/13 (0%)	RR 6.36 (0.34 to 119.4)	-	LOW
Incontinence episodes (Better indicated by lower values)											
3 (Dmochowski et al., 2010; Dowson et al., 2011; Jabs et al., 2010)	randomised trials	no serious risk of bias[4]	serious5	no serious indirectness[3]	serious6	none	75	64	-	MD 1.2 lower (2.71 lower to 0.32 higher)	LOW
Urgency episodes (Better indicated by lower values)											
2 (Dmochowski et al., 2010; Dowson et al., 2011)	randomised trials	no serious risk of bias4	no serious inconsistency[7]	no serious indirectness[3]	serious6	none	63	55	-	MD 1.68 lower (3.2 to 0.17 lower)	MODERATE
Continence status											
2 (Dmochowski et al., 2010; Denys et al., 2012)	randomised trials	no serious risk of bias[4]	serious5	no serious indirectness[3]	serious6	none	25/77 (32.5%)	8/75 (10.7%)	RR 3.23 (1.02 to 10.21)	238 more per 1000 (from 2 more to 982 more)	LOW

Quality assessment							Number of patients		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Botulinum toxin A	Placebo	Relative (95% CI)	Absolute	
Adverse effects											
3 (Dmochowski et al., 2010; Denys et al., 2012; Dowson et al., 2011)	randomised trials	no serious risk of bias[4]	no serious inconsistency[7]	no serious indirectness[3]	serious[6]	none	10/87 (11.5%)	1/88 (1.1%)	RR 4.83 (0.95 to 24.38)	44 more per 1000 (from 1 fewer to 266 more)	MODERATE

1 No apparent bias in the included study

2 Single study analysis

3 Population and intervention are as specified in the review protocol and outcomes are measured at 12 weeks not 24 weeks but this does not seem to affect the findings

4 No apparent bias in the included studies

5 Some evidence of heterogeneity (I-squared between 33% and 66%)

6 Confidence intervals around the point estimate cross into two zones

7 No evidence of heterogeneity (I-squared = 0%)

CI confidence interval, MD minimal difference, OAB-q overactive bladder questionairie, QOL quality of life, RR relative risk, U units

GRADE profile I.9.1 GRADE findings for retropubic “bottom-up” versus retropubic “top-down”

Quality assessment							Number of women		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	retropubic 'bottom-up'	retropubic 'top-down'	Relative 95% CI)	Absolute	
Patient satisfaction with treatment											
No evidence reported											
Incontinence episodes											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic 'bottom-up'**	**retropubic 'top-down'**	**Relative 95% CI)**	**Absolute**	
Continence status											
2 (Andonian et al., 2005; Tseng et al., 2005)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	serious[3]	none	67/74 (90.5%)	59/72 (81.9%)	RR 1.11 (0.97 to 1.26)	90 more per 1000 (from 25 fewer to 213 more)	MODERATE
Incontinence-specific quality of life (Better indicated by lower values)											
No evidence reported											
Psychological outcomes											
No evidence reported											
Post void residual volume											
No evidence reported											
Tissue injury											
3 (Andonian et al., 2005; Lord et al., 2006; Tseng et al., 2005)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	very serious[4]	none	11/221 (5%)	17/226 (7.5%)	RR 0.59 (0.19 to 1.82)	31 fewer per 1000 (from 61 fewer to 62 more)	LOW

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic 'bottom-up'**	**retropubic 'top-down'**	**Relative 95% CI)**	**Absolute**	
Erosion rate											
1 (Andonian et al., 2005)	randomised trials	no serious risk of bias	no serious inconsistency[5]	no serious indirectness[2]	very serious[4]	none	0/43 (0%)	1/41 (2.4%)	RR 0.32 (0.01 to 7.59)	17 fewer per 1000 (from 24 fewer to 161 more)	LOW
Retention											
1 (Andonian et al., 2005)	randomised trials	no serious risk of bias	no serious inconsistency[5]	no serious indirectness[2]	very serious[4]	none	4/43 (9.3%)	2/41 (4.9%)	RR 1.91 (0.37 to 9.86)	44 more per 1000 (from 31 fewer to 432 more)	LOW
De novo overactive bladder symptoms											
1 (Tseng et al., 2005)	randomised trials	no serious risk of bias	no serious inconsistency[5]	no serious indirectness[2]	very serious[4]	none	2/31 (6.5%)	5/31 (16.1%)	RR 0.4 (0.08 to 1.91)	97 fewer per 1000 (from 148 fewer to 147 more)	LOW
Voiding dysfunction											
No evidence reported											

1 I-squared <33%

2 Population, intervention and outcome as specified in review protocol

3 Confidence interval crosses two zones (just crosses 1.25 boundary)

4 Confidence interval crosses three zones

5 Single study in analysis

CI confidence interval, RR relative risk

GRADE profile I.9.2 GRADE findings for retropubic “bottom-up” versus transobturator “outside in”

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic “bottom-up”**	**transobturator “outside-in”**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction with treatment											
5 (Barber et al., 2008; Freeman et al., 2011; Ross et al., 2009; Scheiner et al., 2012; Wang et al., 2010b)	randomised trials	no serious risk of bias	serious[1]	no serious indirectness[2]	no serious imprecision[3]	none	342/436 (78.4%)	294/386 (76.2%)	RR 1.03 (0.91 to 1.16)	23 more per 1000 (from 69 fewer to 122 more)	MODERATE
Incontinence episodes											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "outside-in"**	**Relative (95% CI)**	**Absolute**	
Continence status											
8 (Andonian et al., 2007; Barber et al., 2008; El-Hefnawy et al., 2010; Freeman et al., 2011; Porena et al., 2007; Ross et al., 2009; Scheiner et al., 2012; Wang et al., 2010b)	randomised trials	no serious risk of bias	no serious inconsistency[4]	no serious indirectness[2]	no serious imprecision[3]	none	454/608 (74.7%)	420/560 (75%)	RR 1.01 (0.94 to 1.08)	7 more per 1000 (from 45 fewer to 60 more)	HIGH

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "outside-in"**	**Relative (95% CI)**	**Absolute**	
Incontinence-specific quality of life (Better indicated by lower values)											
3 (Ross et al., 2009; Scheiner et al., 2012; Wang et al., 2010b)	randomised trials	no serious risk of bias	no serious inconsistency[4]	no serious indirectness[2]	very serious[5]	none	212	194	-	SMD 0.02 higher (0.17 lower to 0.22 higher)	LOW
Psychological outcomes											
No evidence reported											
Post void residual volume											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "outside-in"**	**Relative (95% CI)**	**Absolute**	
Tissue injury											
10 (Andonian et al., 2007; Barber et al., 2008; Barry et al., 2008; Freeman et al., 2011; Porena et al., 2007; Ross et al., 2009; Scheiner et al., 2012; Schierlitz et al., 2008; vid-Montefiore et al., 2006; Wang et al., 2010b)	randomised trials	no serious risk of bias	serious[1]	no serious indirectness[2]	very serious[5]	none	50/818 (6.1%)	27/745 (3.6%)	RR 1.51 (0.67 to 3.43)	18 more per 1000 (from 12 fewer to 88 more)	VERY LOW

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "outside-in"**	**Relative (95% CI)**	**Absolute**	
Erosion rate											
7 (Andonian et al., 2007; Barber et al., 2008; El-Hefnawy et al., 2010; Freeman et al., 2011; Porena et al., 2007; Ross et al., 2009; Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[4]	no serious indirectness[2]	very serious[5]	none	10/538 (1.9%)	19/489 (3.9%)	RR 0.46 (0.18 to 1.18)	21 fewer per 1000 (from 32 fewer to 7 more)	LOW
Retention											
2 (Andonian et al., 2007; Barber et al., 2008)	randomised trials	no serious risk of bias	no serious inconsistency[4]	no serious indirectness[2]	very serious[5]	none	11/168 (6.5%)	8/159 (5%)	RR 1.27 (0.52 to 3.13)	14 more per 1000 (from 24 fewer to 107 more)	LOW

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "outside-in"**	**Relative (95% CI)**	**Absolute**	
Voiding dysfunction											
3 (Freeman et al., 2011; Porena et al., 2007; Wang et al., 2010b)	randomised trials	no serious risk of bias	no serious inconsistency[4]	no serious indirectness[2]	very serious[5]	none	16/236 (6.8%)	13/245 (5.3%)	RR 1.27 (0.62 to 2.57)	14 more per 1000 (from 20 fewer to 83 more)	LOW
De novo overactive bladder symptoms											
3 (Andonian et al., 2007; Barber et al., 2008; Wang et al., 2010b)	randomised trials	no serious risk of bias	serious[1]	no serious indirectness[2]	very serious[5]	none	26/238 (10.9%)	25/229 (10.9%)	RR 1.02 (0.36 to 2.86)	2 more per 1000 (from 70 fewer to 203 more)	VERY LOW

1 I-squared >33% and <66%

2 Population, intervention and outcome as specified in protocol

3 Confidence interval in a single zone as specified in methodology chapter

4 I-squared <33%

5 Confidence interval crosses three zones

CI confidence interval, RR relative risk, SMD standardised minimum difference

GRADE profile I.9.3 GRADE findings for retropubic “bottom-up” versus transobturator “inside out”

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic “bottom-up”**	**transobturator “Inside out”**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction with treatment											
5 (Deffieux et al., 2010; Karateke et al., 2009; Krofta et al., 2010; Liapis et al., 2006; Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	no serious imprecision[3]	none	342/431 (79.4%)	312/391 (79.8%)	RR 1.01 (0.94 to 1.08)	8 more per 1000 (from 48 fewer to 64 more)	HIGH
Incontinence episodes											
No evidence reported											

Quality assessment							Number of women		Effect		
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "Inside out"**	**Relative (95% CI)**	**Absolute**	**Quality**
Continence status											
12 (Aniuliene, 2009; Araco et al., 2008; Deffieux et al., 2010; Karateke et al., 2009; Krofta et al., 2010; Laurikainen et al., 2007; Liapis et al., 2006; Scheiner et al., 2012; Teo et al., 2011; Wang et al., 2009; Wang et al., 2011; Zullo et al., 2007)	no serious risk of bias	very serious [4]	no serious indirectness[5]	no serious imprecision	none	no serious risk of bias	894/1094 (81.7%)	795/1081 (73.5%)	RR 1.07 (0.96 to 1.19)	51 more per 1000 (from 29 fewer to 140 more)	LOW

Quality assessment							Number of women		Effect		
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "Inside out"**	**Relative (95% CI)**	**Absolute**	**Quality**
Incontinence-specific quality of life (Better indicated by lower values)											
4 (Karateke et al., 2009; Krofta et al., 2010; Scheiner et al., 2012; Zullo et al., 2007)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	serious[6]	none	304	295	-	SMD 0.04 lower (0.20 lower to 0.12 higher)	MODERATE
Psychological outcomes											
No evidence reported											
Post void residual volume											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "Inside out"**	**Relative (95% CI)**	**Absolute**	
Tissue injury											
11 (Aniuliene, 2009; Araco et al., 2008; Deffieux et al., 2010; Karateke et al., 2009; Krofta et al., 2010; Laurikainen et al., 2007; Liapis et al., 2006; Scheiner et al., 2012; Teo et al., 2011; Wang et al., 2011; Zullo et al., 2007)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[5]	very serious[7]	None	27/934 (2.9%)	16/926 (1.7%)	RR 1.31 (0.68 to 2.51)	5 more per 1000 (from 6 fewer to 26 more)	LOW

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "Inside out"**	**Relative (95% CI)**	**Absolute**	
Erosion rate											
9 (Araco et al., 2008; Deffieux et al., 2010; Karateke et al., 2009; Krofta et al., 2010; Laurikainen et al., 2007; Liapis et al., 2006; Scheiner et al., 2012; Teo et al., 2011; Wang et al., 2009)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	very serious[7]	None	15/913 (1.6%)	13/858 (1.5%)	RR 1.09 (0.52 to 2.29)	1 more per 1000 (from 7 fewer to 20 more)	LOW

Quality assessment							Number of women		Effect		
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "Inside out"**	**Relative (95% CI)**	**Absolute**	**Quality**
Retention											
7 (Aniuliene, 2009; Krofta et al., 2010; Laurikainen et al., 2007; Liapis et al., 2006; Wang et al., 2009; Wang et al., 2011; Zullo et al., 2007)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	no serious imprecision[3]	none	32/672 (4.8%)	14/703 (2%)	RR 2.44 (1.29 to 4.6)	29 more per 1000 (from 6 more to 72 more)	HIGH

Quality assessment							Number of women		Effect		
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic "bottom-up"**	**transobturator "Inside out"**	**Relative (95% CI)**	**Absolute**	**Quality**
De novo overactive bladder symptoms											
7 (Araco et al., 2008; Karateke et al., 2009; Krofta et al., 2010; Laurikainen et al., 2007; Liapis et al., 2006; Wang et al., 2009; Zullo et al., 2007)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness	very serious[7]	none	48/727 (6.6%)	53/720 (7.4%)	RR 0.9 (0.58 to 1.41)	7 fewer per 1000 (from 31 fewer to 30 more)	LOW
Voiding dysfunction											
1 (Karateke et al., 2009)	randomised trials	no serious risk of bias	no serious inconsistency[8]	no serious indirectness	very serious[7]	none	8/81 (9.9%)	6/83 (7.2%)	RR 1.37 (0.5 to 3.76)	27 more per 1000 (from 36 fewer to 200 more)	LOW

* Tissue injury includes bladder, urethral, vaginal and bowel injury

1 I-squared <33%

2 Population, intervention and outcome as specified in protocol

3 Confidence intervals in a single zone as specified in methodology chapter

4 Inconsistency was significant with I-squared >60%
5 Some indirectness in two studies but this did not appear to influence the findings on this outcome
6 Confidence interval crosses two zones
7 Confidence intervals cross in to three zones
8 Single study analysis
CI confidence interval, RR relative risk, SMD standardised minimum difference

GRADE profile I.9.4 GRADE findings for comparison of retropubic "bottom-up" versus single incision

Quality assessment							**Number of women**		**Effect**		**Quality**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic 'bottom-up'**	**Single-incision**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction with treatment											
1 (Barber et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	serious[2]	serious[3]	none	91/127 (71.7%)	87/136 (64%)	RR 1.12 (0.95 to 1.32)	77 more per 1000 (from 32 fewer to 205 more)	LOW
Incontinence episodes											
No evidence reported											
Continence status											
2 (Barber et al., 2012; Wang et al., 2011)	randomised trials	no serious risk of bias	very serious[4]	very serious[5]	serious[3]	none	107/159 (67.3%)	100/170 (58.8%)	RR 1.21 (0.93 to 1.57)	124 more per 1000 (from 41 fewer to 335 more)	VERY LOW
Incontinence-specific quality of life (Better indicated by lower values)											
No evidence reported											
Psychological outcomes											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**retropubic 'bottom-up'**	**Single-incision**	**Relative (95% CI)**	**Absolute**	
Post void residual volume											
No evidence reported											
Tissue injury											
5 (Abdelwahab et al., 2010; Andrada et al., 2011; Barber et al., 2012; Basu & Duckett, 2010; Wang et al., 2011)	randomised trials	no serious risk of bias[6]	no serious inconsistency[7]	serious[8]	serious[3]	none	12/289 (4.2%)	4/294 (1.4%)	RR 2.48 (0.80 to 7.75)	20 more per 1000 (from 3 fewer to 92 more)	LOW
Erosion rate											
1 (Barber et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	serious[2]	very serious[9]	none	1/127 (0.79%)	0/136 (0%)	RR 3.21 (0.13 to 78.11)	-	VERY LOW
Retention											
1 (Wang et al., 2011)	randomised trials	no serious risk of bias	no serious inconsistency[1]	serious[10]	very serious[9]	none	1/32 (3.1%)	0/34 (0%)	RR 3.18 (0.13 to 75.38)	-	VERY LOW
De novo overactive bladder symptoms											
No evidence reported											
Voiding dysfunction											
No evidence reported											

1 Single study included in the analysis
2 Included women who had previous incontinence surgery
3 Confidence interval crosses two zones
4 I-squared >66%
5 One study included women who had previous incontinence surgery. One study did not clearly report inclusion criteria
6 Some risk of bias in two studies but this did not appear to influence the findings on this outcome
7 I-squared <33%
8 Two studies reported outcome s<12 months, one study included women with previous incontinence surgery and one study did not clearly report inclusion criteria
9 Confidence interval crosses three zones
10 Study did not clearly report inclusion criteria
CI confidence interval, RR relative risk

GRADE profile I.9.5 GRADE findings for transobturator "outside in" versus retropubic "top down"

Quality assessment							**Number of women**		**Effect**		**Quality**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**transobturator "Outside-in"**	**retropubic "Top-down"**	**Relative (95% CI)**	**Absolute**	
Patient satisfaction with treatment											
No evidence reported											
Incontinence episodes											
No evidence reported											
Continence status											
No evidence reported											
Incontinence-specific quality of life (Better indicated by lower values)											
No evidence reported											
Psychological outcomes											
No evidence reported											
Post void residual volume											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**transobturator "Outside-in"**	**retropubic "Top-down"**	**Relative (95% CI)**	**Absolute**	
Tissue injury											
1 (Wang et al., 2006a)	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	4/31 (12.9%)	1/31 (3.2%)	RR 4 (0.47 to 33.79)	97 more per 1000 (from 17 fewer to 1000 more)	VERY LOW
Erosion rate											
No evidence reported											
Retention											
No evidence reported											
De novo overactive bladder symptoms											
No evidence reported											
Voiding dysfunction											
No evidence reported											

1 Risk of detection bias

2 Single study in analysis

3 Population, intervention and outcome as specified in review protocol

4 Confidence interval crosses three zones

CI confidence interval, RR relative risk

GRADE profile I.9.6 GRADE findings for transobturator “outside-in” versus transobturator “inside-out”

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**transobturator “Outside-in”**	**transobturator “Inside-out”**	**Relative (95% CI)**	**Absolute (95% CI)**	
Patient satisfaction with treatment											
2 (Abdel-Fattah et al., 2010; Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	no serious imprecision[3]	none	139/211 (65.9%)	150/210 (71.4%)	RR 0.92 (0.81 to 1.05)	57 fewer per 1000 (from 136 fewer to 36 more)	HIGH
Incontinence episodes											
No evidence reported											
Continence status											
2 (Abdel-Fattah et al., 2010; Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	no serious imprecision[3]	none	127/211 (60.2%)	147/210 (70%)	RR 0.87 (0.76 to 1)	91 fewer per 1000 (from 168 fewer to 0 more)	HIGH
Incontinence-specific quality of life (Better indicated by lower values)											
1 (Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[4]	no serious indirectness[2]	very serious[5]	none	28	28	-	MD 2.7 lower (13.29 lower to 7.89 higher)	LOW

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**transobturator t "Outside-in"**	**transobturator "Inside-out"**	**Relative (95% CI)**	**Absolute (95% CI)**	
Psychological outcomes											
No evidence reported											
Post void residual volume											
No evidence reported											
Tissue injury											
3 (Abdel-Fattah et al., 2010; But & Faganelj, 2008; Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	no serious imprecision[3]	none	28/271 (10.3%)	8/270 (3%)	RR 3.02 (1.26 to 7.25)	60 more per 1000 (from 8 more to 185 more)	HIGH
Erosion rate											
2 (Abdel-Fattah et al., 2010; Scheiner et al., 2012)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	very serious[5]	none	9/211 (4.3%)	3/210 (1.4%)	RR 2.44 (0.58 to 10.19)	21 more per 1000 (from 6 fewer to 131 more)	LOW
Retention											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	transobturator t "Outside-in"	transobturator "Inside-out"	Relative (95% CI)	Absolute (95% CI)	
De novo overactive bladder symptoms											
No evidence reported											
Voiding dysfunction											
No evidence reported											

* Tissue injury includes bladder and vaginal injury

1 I-squared <33%

2 Population, intervention and outcome as specified in review protocol

3 Confidence interval in a single zone

4 Single study in analysis

5 Confidence interval crosses three zones

CI confidence interval, RR relative risk

GRADE profile I.9.7 GRADE findings for transobturator "inside out" versus single incision

Quality assessment							Number of women		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	transobturator "Inside-out"	Single-incision	Relative (95% CI)	Absolute	
Patient satisfaction with treatment											
1 (Hinoul et al., 2011)	randomised trials	no serious risk of bias	no serious inconsistency[1]	no serious indirectness[2]	serious[3]	none	90/98 (91.8%)	73/96 (76%)	RR 1.21 (1.06 to 1.37)	160 more per 1000 (from 46 more to 281 more)	MODERATE
Incontinence episodes											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	transobturator "Inside-out"	Single-incision	Relative (95% CI)	Absolute	
Continence status											
5 (Hinoul et al., 2011; Hota et al., 2012; Masata et al., 2012; Oliveira et al., 2011; Tommaselli et al., 2010)	randomised trials	no serious risk of bias[4]	very serious[5]	no serious indirectness[2]	very serious[6]	none	177/282 (62.8%)	209/369 (56.6%)	RR 1.02 (0.76 to 1.37)	11 more per 1000 (from 136 fewer to 210 more)	VERY LOW
Incontinence-specific quality of life (Better indicated by lower values)											
2 (Hinoul et al., 2011; Tommaselli et al., 2010)	randomised trials	no serious risk of bias	very serious[5]	no serious indirectness[2]	serious[3]	none	136	133	-	SMD 0.11 lower (0.65 lower to 0.43 higher)	VERY LOW
Psychological outcomes											
No evidence reported											
Post void residual volume											
No evidence reported											

Quality assessment							Number of women		Effect		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**transobturator "Inside-out"**	**Single-incision**	**Relative (95% CI)**	**Absolute**	
Tissue injury											
2 (Hinoul et al., 2011; Masata et al., 2012)	randomised trials	no serious risk of bias[7]	no serious inconsistency[8]	no serious indirectness	very serious[9]	none	0/166 (0%)	4/225 (1.8%)	RR 0.29 (0.03 to 2.56)	13 fewer per 1000 (from 17 fewer to 28 more)	LOW
Erosion rate											
3 (Hinoul et al., 2011; Hota et al., 2012; Tommaselli et al., 2010)	randomised trials	no serious risk of bias[7]	no serious inconsistency[8]	no serious indirectness[2]	no serious imprecision[10]	none	1/184 (0.54%)	16/180 (8.9%)	RR 0.13 (0.03 to 0.58)	77 fewer per 1000 (from 37 fewer to 86 fewer)	HIGH
Retention											
3 (Hinoul et al., 2011; Oliveira et al., 2011; Tommaselli et al., 2010)	randomised trials	no serious risk of bias	no serious inconsistency[8]	no serious indirectness[2]	very serious[9]	none	6/170 (3.5%)	5/198 (2.5%)	RR 1.34 (0.4 to 4.48)	9 more per 1000 (from 15 fewer to 88 more)	LOW

Quality assessment							Number of women		Effect		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	transobturator "Inside-out"	Single-incision	Relative (95% CI)	Absolute	
De novo overactive bladder symptoms											
2 (Oliveira et al., 2011; Tommaselli et al., 2010)	randomised trials	no serious risk of bias	no serious inconsistency[8]	no serious indirectness[2]	very serious[9]	none	6/72 (8.3%)	8/102 (7.8%)	RR 1.34 (0.49 to 3.65)	27 more per 1000 (from 40 fewer to 208 more)	LOW
Voiding dysfunction											
No evidence reported											

1 Single study in the analysis
2 Population, intervention and outcome as specified in review protocol
3 Confidence interval crosses two zones
4 Some risk of bias in two studies but this did not appear to influence the findings on this outcome
5 I-squared >66%
6 Confidence interval crosses three zones (just crosses lower boundary)
7 Some risk of bias in one study but this did not appear to influence the findings for this outcome
8 I-squared <33%
9 Confidence interval crosses three zones
10 Confidence interval within one zone
CI confidence interval, RR relative risk

GRADE profile I.9.8 GRADE profile for long-term outcomes of retropubic “bottom-up”

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
Patient satisfaction								
2 years								
2 (Nwabineli et al., 2012; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	72.6% to 92.1%	LOW
3 years								
2 (Palva et al., 2010; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	86.8% to 87.3%	LOW
5 years								
2 (Doo et al., 2006; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	76.8% to 85.7%	LOW
7 years								
1 (Serati et al., 2012)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	85.7%	LOW
10 years								
1 (Serati et al., 2012)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	82.5%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
Continence status								
2 years								
7 studies (Castillo-Pino et al., 2010; Deffieux et al., 2010; Koops et al., 2006; Lleberia-Juanos et al., 2011; Meschia et al., 2006; Nwabineli et al., 2012; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	74.1% to 95.0%	LOW
3 years								
5 studies (Koops et al., 2006; Lleberia-Juanos et al., 2011; Palva et al., 2010; Serati et al., 2012; Viereck et al., 2006)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	81.9% to 92.6%	LOW
5 years								
4 studies (Chene et al., 2007; Doo et al., 2006; Liapis et al., 2008a; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	69.2% to 85.7*	LOW
7 years								
2 studies (Liapis et al., 2008a; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	70.0% to 85.7%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
10 years								
2 studies (Groutz et al., 2011a; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	56.7% to 85.7%	LOW
Adverse effects – Tape erosion								
2 years								
4 studies (Castillo-Pino et al., 2010; Lleberia-Juanos et al., 2011; Meschia et al., 2006; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0% to 4.1%	LOW
3 years								
2 studies (Palva et al., 2010; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0%	LOW
5 years								
4 studies (Chene et al., 2007; Doo et al., 2006; Liapis et al., 2008a; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0% to 1.4%	LOW
7 years								
2 studies (Liapis et al., 2008a; Serati et al., 2012)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0% to 1.4%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
10 years								
No evidence reported								
Adverse effects – Urinary retention								
2 years								
4 studies (Lleberia-Juanos et al., 2011; Meschia et al., 2006)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	9.5% to 13.2%	LOW
3 years								
1 study (Palva et al., 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0%	LOW
5 years								
2 studies (Chene et al., 2007; Doo et al., 2006)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	2.1% to 5.3%	LOW
7 years								
No evidence reported								
10 years								
No evidence reported								
Adverse effects – Voiding dysfunction								
2 years								
1 study (Castillo-Pino et al., 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	18.2%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
3 years								
No evidence reported								
5 years								
1 study (Chene et al., 2007)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0.7%	LOW
7 years								
No evidence reported								
10 years								
No evidence reported								
Adverse effects – De novo overactive bladder symptoms								
2 years								
4 studies (Castillo-Pino et al., 2010; Lleberia-Juanos et al., 2011; Meschia et al., 2006; Serati et al., 2012)	observational studies	no serious risk of bias1	no serious inconsistency2	no serious indirectness3	no serious imprecision4	none	13.3% to 24.7%	LOW
3 years								
2 studies (Lleberia-Juanos et al., 2011; Serati et al., 2012)	observational studies	no serious risk of bias1	no serious inconsistency2	no serious indirectness3	no serious imprecision4	none	17.5% to 23.1%	LOW
5 years								
3 studies (Chene et al., 2007; Doo et al., 2006; Serati et al., 2012)	observational studies	no serious risk of bias1	no serious inconsistency2	no serious indirectness3	no serious imprecision4	none	15.4% to 18.6%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
7 years								
1 study (Serati et al., 2012)	observational study	no serious risk of bias1	no serious inconsistency2	no serious indirectness3	no serious imprecision4	none	17.5%	LOW
10 years								
1 study (Serati et al., 2012)	observational study	no serious risk of bias1	no serious inconsistency2	no serious indirectness3	no serious imprecision4	none	17.5%	LOW

1 No apparent risk of bias in the included studies

2 Inconsistency not measured for this review

3 Population, intervention and outcomes were as specified in the review protocol

4 Imprecision not recorded for this outcome

GRADE profile I.9.9 GRADE profile for long-term outcomes of transobturator “inside-out”

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other consideration**	**Events (range)**	
Patient satisfaction								
2 years								
No evidence reported								
3 years								
1 study (Palva et al., 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	87.1%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other consideration**	**Events (range)**	
5 years								
1 study (Cheng & Liu, 2012)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	87.4%	LOW
Continence status								
2 years								
1 study (Deffieux et al., 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	87.8%	LOW
3 years								
2 studies (Neuman et al., 2011; Palva et al., 2010)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	75.0% to 84.9%	LOW
5 years								
2 studies (Cheng & Liu, 2012; Groutz et al., 2011)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	69.2% to 89.3*	LOW
Adverse effects – Tape erosion								
2 years								
No evidence reported								
3 years								
1 study (Palva et al., 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0.8%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other consideration**	**Events (range)**	
5 years								
2 studies (Cheng & Liu, 2012; Groutz et al., 2011)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0% to 1.0%	LOW
Adverse effects – Voiding dysfunction								
No evidence reported								
Adverse effects – De novo overactive bladder symptoms								
2 years								
No evidence reported								
3 years								
No evidence reported								
5 years								
1 study (Groutz et al., 2011)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0%	LOW

1 No apparent risk of bias in the included studies

2 Inconsistency not measured for this review

3 Population, intervention and outcomes were as specified in the review protocol

4 Imprecision not recorded for this outcome

GRADE profile I.9.10 GRADE profile for long-term outcomes of transobturator “outside-in”

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
Patient satisfaction								
2 years								
1 study (Taweel & Rabah, 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	71.2%	LOW
Continence status								
2 years								
1 study (Taweel & Rabah, 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	80.8%	LOW
Adverse effects – Tape erosion								
2 years								
1 study (Taweel & Rabah, 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0%	LOW
Adverse effects – Urinary retention								
2 years								
1 study (Taweel & Rabah, 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	4.3%	LOW
Adverse effects – De novo overactive bladder symptoms								
2 years								
1 study (Taweel & Rabah, 2010)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	7.7%	LOW

1 No apparent risk of bias in the included studies

2 Inconsistency not measured for this review

3 Population, intervention and outcomes were as specified in the review protocol

4 Imprecision not recorded for this outcome

GRADE profile I.9.11 GRADE profile for long-term outcomes of single incision

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
Continence status								
2 years								
3 studies (Bernasconi et al., 2012; Kennelly et al., 2012; Shin et al., 2011)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	63.8% to 83.1%	LOW
3 years								
1 study (Neuman et al., 2011)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	85.4%	LOW
Adverse effects – Tape erosion								
2 years								
3 studies (Bernasconi et al., 2012; Kennelly et al., 2012; Shin et al., 2011)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0% to 2.1%	LOW
3 years								
1 study (Neuman et al., 2011)	observational study	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	0%	LOW

Quality assessment							Relative effects	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Events (range)**	
Adverse effects – Urinary retention								
2 years								
3 studies (Bernasconi et al., 2012; Kennelly et al., 2012; Shin et al., 2011)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	4.1 % to 6.5%	LOW
3 years								
No evidence reported								
Adverse effects – De novo overactive bladder symptoms								
2 years								
3 studies (Bernasconi et al., 2012; Kennelly et al., 2012; Shin et al., 2011)	observational studies	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	5.4% to 11.9%%	LOW
3 years								
No evidence reported								

1 No apparent risk of bias in the included studies

2 Inconsistency not measured for this review

3 Population, intervention and outcomes were as specified in the review protocol

4 Imprecision not recorded for this outcome

GRADE profile I.9.14 GRADE findings for all statistically and clinically significant factors

Quality assessment							Summary of findings			
							Number of patients		Effect	
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95% CI)**	**Quality**
Preoperative anticholinergic medication use vs no use										
1 (Barber et al., 2008a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	Not reported	Not reported	6.7 (1.6 to 22)	HIGH
BMI >35 vs BMI ≤30 (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[5]	no serious imprecision[4]	none	8/58 (13.79%)	10/247 (4.05%)	6.37 (1.73 to 23.44)	HIGH
MUCP ≥31 vs MUCP ≤30 (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[5]	no serious imprecision[4]	none	25/43 (58.14%)	219/245 (89.39%)	7.06 (2.85 to 17.48)	HIGH
Primary surgery vs secondary surgery (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[5]	no serious imprecision[4]	none	31/44 (70.45%)	223/253 (88.14%)	6.22 (2.34 to 16.52)	HIGH

1 No apparent risk of bias in the included study

2 Single study analysis.

3 Population and outcomes as specified in the protocol.

4 Confidence intervals in a single zone (see methodology chapter).

Study included some women with mixed urinary incontinence but this was not considered to affect this outcome

BMI body mass index, CI confidence interval, MUCP maximum urethral closure pressure, OR odds ratio

GRADE profile I.9.14 GRADE findings for all statistically significant factors

Quality assessment							Number of women		Effect	Quality
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95% CI)**	
Age per decade (outcome: recurrent SUI)										
1 (Barber et al., 2008a)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	Not reported	Not reported	1.7 (1.1 to 2.6)	MODERATE
Concurrent pelvic organ prolapse surgery										
1 (Barber et al., 2008a)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	NR	NR	2.7 (1.1 to 6.7)	MODERATE
Secondary surgery vs primary surgery (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[4]	none	14/61 (22.95%)	32/249 (12.85%)	2.33 (1.1 to 5.478)	LOW
Nocturia vs no nocturia (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[4]	none	44/61 (72.13%)	105/246 (42.68%)	2.18 (1.04 to 4.58)	LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95% CI)**	
Urgency incontinence vs no urgency incontinence (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	serious[5]	Serious[4]	none	44/61 (72.13%)	124/249 (49.80%)	3.35 (1.07 to 10.51)	LOW
Higher maximal flow rate										
1 (Paick et al., 2004)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	Serious[4]	none	Mean: 16ml/s (9-36) n = 10	Mean: 26ml/s (11-63) n = 50	0.90 (0.82 to 0.99)	MODERATE
Previous UI surgery vs no previous UI surgery										
1 (Richter et al., 2011)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	49/259 (18.92%)	26/304 (8.55%)	1.99 (1.14 to 3.47)	MODERATE
Q-tip maximum straining less than 30 degrees, yes vs no										
1 (Richter et al., 2011)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	59/260 (22.69%)	42/305 (13.77%)	1.89 (1.16 to 3.05)	MODERATE
Urge score (per 10 points)										
1 (Richter et al., 2011)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	Mean +/- SD: 7.2+/-4.0 n = 260	Mean +/- SD: 5.6+/-3.7 n = 305	1.97 (1.21 to 3.21)	MODERATE

Quality assessment							Number of women		Effect	Quality
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95% CI)**	
Pad weight (per 10g)										
1 (Richter et al., 2011)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	Mean +/- SD: 50.2+/- 88.9 n = 260	Mean +/- SD: 24.7+/- 39.7 n = 305	1.06 (1.02 to 1.1)	MODERATE
More than 20 procedures for each surgeon vs first 10 procedures for each surgeon (outcome 1: defined as the answer to the question 'Do you experience urinary leakage during physical activity, coughing or sneezing?' Success for SUI was defined as the answer 'no'.)										
1 (Schraffordt et al., 2006)	Observational	serious[6]	no serious inconsistency[2]	serious [7]	serious[4]	none	66/184 (35.87%)	173/381 (45.41%)	1.918 (1.24 to 2.97)	LOW
More than 20 procedures for each surgeon vs first 10 procedures for each surgeon (outcome 2: defined as answer to the doctor's question 'Do you leak during physical activity, coughing or sneezing?' asked at 2-year follow-up. The answer 'no' was defined as success. All other answers as well as 'improved' were considered as failure.)										
1 (Schraffordt et al., 2006)	Observational	Serious[6]	no serious inconsistency[2]	serious [7]	serious[4]	none	44/133 (33.08%)	220/478 (46.03%)	0.55 (0.32 to 0.96)	LOW
General anesthesia vs local anaesthesia										
1 (Schraffordt et al., 2006)	Observational	Serious[6]	no serious inconsistency[2]	serious [7]	serious[4]	none	22/122 (18.03%)	47/451 (10.42%)	2.21 (1.07 to 4.55)	LOW
Urge symptoms vs no urge symptoms										
1 (Paick et al., 2004b)	observational study	Serious[6]	no serious inconsistency	Serious[8]	Serious[4]	none	NR	NR	5.703 (1.232 to 26.404)	LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Tape failure	No tape failure	Adjusted OR (95% CI)	
Lower MUCP (reference not stated)										
1 (Paick et al., 2004b)	observational study	Serious[6]	no serious inconsistency	Serious[8]	Serious[4]	none	NR	NR	0.944 (0.895 to 0.996)	LOW

1 No apparent risk of bias in the included study

2 Single study analysis.

3 Population and outcomes were as specified in the protocol.

4 Confidence intervals cross into two zones (see methodology chapter).

5 Population: 26.5% had mixed urinary incontinence.

6 Study considered factors identified as significant in univariate analysis for multivariate analysis

7 Population: 20.4% of women had mixed urinary incontinence.

8 Study included women with SUI with low VLPP (< 60cm H_2O)

CI confidence interval, MUCP maximum urethral closure pressure, OR odds ratio, SUI stress urinary incontinence, UI urinary incontinence

GRADE profile I.9.16 GRADE findings for factors of no statistical significance

Quality assessment							Number of women		Effect	Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Tape failure	No tape failure	Adjusted OR (95%CI)	
Current smoking										
1 (Barber et al., 2008a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	Not reported	Not reported	0.4 (0.1 to 1.3)	LOW
Functional capacity (metabolic unit, METs)										
1 (Barber et al., 2008a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	Not reported	Not reported	2.4 (0.4 to 15)	LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95%CI)**	
Number of vaginal deliveries										
1 (Barber et al., 2008a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	Not reported	Not reported	0.3 (0.03 to 2.4)	LOW
No nocturia vs nocturia (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	16/44 (36.36%)	134/250 (53.6%)	1.23 (0.52 to 2.89)	VERY LOW
No urgency incontinence vs urgency incontinence (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	16/44 (36.36%)	117/253 (46.25%)	1.18 (0.33 to 4.31)	VERY LOW
Maximal cystometric capacity										
1 (Paick et al., 2004)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[6]	none	Mean: 411ml (293-699)	Mean: 384ml (178-549ml)	1.00 1 to 1.02)	HIGH
Treatment group: retropubic 'bottom-up' compared with transobturator 'outside-in'										
1 (Barber et al., 2008a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	NR	NR	OR 1.1 (0.5 to 2.5)[4,5,6]	LOW

Quality assessment							Number of women		Effect	
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Tape failure	No tape failure	Adjusted OR (95%CI)	Quality
Treatment group: transobturator 'outside-in' compared with transobturator 'inside-out' (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	35/61 (57.38%)	119/249 (47.79%)	1.46 (0.75 to 2.82)	VERY LOW
Treatment group: transobturator 'inside-out' compared with transobturator 'outside-in' (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	19/44 (43.18%)	131/253 (51.78%)	1.48 (0.68 to 3.22)	VERY LOW
Treatment group: transobturator midurethral sling vs retropubic midurethral sling										
1 (Richter et al., 2011)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[7]	none	138/260 (53.08%)	147/305 (48.20%)	1.15 (0.81 to 1.63)	MODERATE
No prolapse of cervix of vaginal vault vs prolapse										
1 (Schraffordt et al., 2006)	Observational	Serious[8]	no serious inconsistency[2]	serious[9]	very serious[4]	none	82/119 (68.91%)	343/437 (78.49%)	1.25 (0.66 to 2.37)	VERY LOW
Weekly incontinence episodes vs daily incontinence episodes										
1 (Schraffordt et al., 2006)	Observational	Serious[8]	no serious inconsistency[2]	serious[9]	Serious[7]	none	4/170 (2.35%)	27/361 (7.48%)	3.01 (0.87 to 10.49)	LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95%CI)**	
Q-tip test < 30 degrees vs >/=30 degrees										
1 (Paick et al., 2004)	Observational	Serious[8]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	Mean: 23 degrees (10-45)	Mean: 30 degrees (5-70)	0.55 (0.09 to 3.17)	VERY LOW
Previous incontinence surgery vs no previous urogynecological surgery										
1 (Schraffordt et al., 2006)	Observational	Serious[8]	no serious inconsistency[2]	serious[9]	Serious[7]	none	12/200 (6.00%)	20/408 (4.90%)	0.51 (0.243 to 1.071)	VERY LOW
VLPP <60cmH20 vs >/=60cmH20										
1 (Paick et al., 2004)	Observational	Serious[8]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	Mean: 52cm H_2O (20-104)	Mean: 72cm H_2O (20-125)	2.34 (0.42 to 12.89)	VERY LOW
Dribbling incontinence vs no dribbling incontinence (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	31/61 (50.82%)	87/248 (35.08%)	0.77 (0.37 to 1.61)	VERY LOW
No dribbling incontinence vs dribbling incontinence (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	23/43 (53.49%)	160/253 (63.24%)	0.63 (0.25 to 1.58)	VERY LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Tape failure	No tape failure	Adjusted OR (95%CI)	
Urgency vs no urgency (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[7]	none	42/61 (68.85%)	110/247 (44.53%)	3.26 (0.87 to 12.26)	LOW
No urgency vs urgency (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	19/44 (43.18%)	130/251 (51.79%)	0.45 (0.08 to 2.67)	VERY LOW
BMI 31-35 vs ≤ 30 (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[7]	none	22/58 (37.93%)	65/247 (26.32%)	1.91 (0.95-3.87)	LOW
BMI 31-35 vs ≤ 30 (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[7]	none	17/43 (39.53%)	66/250 (26.4%)	1.84 (0.81-4.17)	LOW
BMI >35 vs ≤ 30 (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[7]	none	6/43 (13.95%)	12/250 (4.80%)	3.46 (0.78-15.32)	LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	**Design**	**Limitations**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Tape failure**	**No tape failure**	**Adjusted OR (95%CI)**	
Age 45-65yrs vs ≤ 45yrs (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[7]	none	40/60 (66.67%)	137/230 (59.57%)	1.99 (0.82-4.87)	VERY LOW
Age >65 yrs vs ≤ 45 yrs (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	9/60 (15.00%)	29/230 (12.61%)	1.85 (0.57-5.94)	VERY LOW
Age 45-65yrs vs ≤ 45yrs (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	25/42 (59.52%)	146/235 (62.13%)	0.8 (0.3-2.09)	VERY LOW
Age > 65 yrs vs ≤ 45 yrs (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	7/42 (16.67%)	30/235 (12.77%)	1.32 (0.37-4.74)	VERY LOW
Age per decade (outcome: any urinary incontinence)										
1 (Barber et al., 2008a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	no serious indirectness[3]	very serious[4]	none	Not reported	Not reported	1.3 (0.5-2.7)	LOW

Quality assessment							Number of women		Effect	Quality
Number of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Tape failure	No tape failure	Adjusted OR (95%CI)	
MUCP ≤ 30 vs ≥ 31 (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	Serious[7]	none	18/60 (30.00%)	28/239 (11.72%)	2.26 (0.996-5.124)	LOW
Type of incontinence: mixed group vs USI group (patient reported outcome)										
1 (Abdel-Fattah et al., 2010a)	observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	23/61 (37.70%)	59/249 (23.69%)	1.06 (0.5-2.24)	VERY LOW
Type of incontinence: USI group vs mixed group (objective outcome)										
1 (Abdel-Fattah et al., 2010a)	Observational	no serious risk of bias[1]	no serious inconsistency[2]	Serious[5]	very serious[4]	none	32/44 (72.73%)	186/253 (73.52%)	0.72 (0.28-1.85)	VERY LOW
Type of incontinence: stress incontinence vs mixed										
1 (Schraffordt et al., 2006)	observational	Serious[8]	no serious inconsistency[2]	Serious[9]	Serious[7]	none	84/119 (70.59%)	365/432 (84.49%)	1.84 (0.96-3.54)	VERY LOW

1 No apparent risk of bias in the included study

2 Single study analysis.

3 Population and outcomes were as specified in the protocol.

4 Confidence intervals cross into three zones (see methodology chapter).

5 Population: 26.5% had mixed UI.

6 Confidence intervals in a single zone (see methodology chapter)

7 Confidence intervals cross into two zones (see methodology chapter)

8 Study considered factors identified as significant in univariate analysis for multivariate analysis

9 Population: 20.4% of women had mixed urinary incontinence.

BMI body mass index, CI confidence interval, MUCP Maximum urethral closure pressure, OR odds ratio, SUI stress urinary incontinence, UI urinary incontinence, VLPP Valsava Leak Point Pressure,

GRADE profile I.9.18 GRADE findings for a repeat tape procedure

Quality assessment							**Number of women**	**Quality**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
Patient satisfaction with treatment								
No studies identified								
Self-reported rate of absolute reduction in symptoms								
No studies identified								
Continence status (zero episodes per day)								
7 (Eandi et al., 2008; Han et al., 2012; Lee et al., 2007; Liapis et al., 2009; Palva & Nilsson, 2009; Sabadell et al., 2011; VanBaelen & Delaere, 2009)	3 chart reviews; 4 case series	Serious risk of bias[1]	No serious risk of bias[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	52% to 84%	VERY LOW
Incontinence-specific quality of life – Urinary Incontinence Severity Score (Better indicated by lower values)								
1 (Palva & Nilsson, 2009)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	Median scores changed from 60 (15 to 85) to 5 (0 to 60)	VERY LOW
Incontinence-specific quality of life – Incontinence – Quality of Life (Better indicated by higher values)								

Quality assessment							Number of women	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
1 (VanBaelen & Delaere, 2009)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	Median scores changed from 18 (no range reported) to 6 (no range reported)	VERY LOW
Adverse effects – Tissue injury								
1 (Liapis et al., 2009)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	3.2%	VERY LOW
Adverse effects – Tape erosion								
1 (VanBaelen & Delaere, 2009)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	0%	VERY LOW
Adverse effects – Urinary retention								
1 (Lee et al., 2007)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	0%	VERY LOW
Adverse effects – Voiding dysfunction								
4 (Han et al., 2012; Lee et al., 2007; Liapis et al., 2009; Sabadell et al., 2011)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	2.8% to 10.3%	VERY LOW
Adverse effects – de novo OAB symptoms								

Quality assessment							Number of women	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
5 (Han et al., 2012; Lee et al., 2007; Liapis et al., 2009; Sabadell et al., 2011; VanBaelen & Delaere, 2009)	Case series	Serious risk of bias[1]	Not applicable[5]	No serious risk of bias[3]	No serious risk of bias[4]	None	9.1% to 21.7%	VERY LOW
Psychological outcomes								
No studies identified								
Clinical outcomes								
No studies identified								

1 High risk of performance bias and attrition bias due to lack of blinding in this study

2 Heterogeneity not calculated for case-series

3 Population, intervention and outcome was as specified in the review protocol

4 Not calculated for this data

5 A single study analysis

OAB overactive bladder

GRADE profile I.9.19 GRADE findings for a laparoscopic Burch Colposuspension

Quality assessment							Number of women	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
Patient satisfaction with treatment – using a 0-10 visual analogue scale								
1 (deCuyper et al., 2008)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	Mean (SD) satisfaction 9.36 (SD 1.08)	VERY LOW
Self-reported rate of absolute reduction in symptoms								
No evidence reported								

Quality assessment							Number of women	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
Continence status (zero episodes per day)								
1 (deCuyper et al., 2008)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	55.0%	VERY LOW
Incontinence-specific quality of life								
No evidence reported								
Adverse effect – Tissue injury								
No evidence reported								
Adverse effect – Tape erosion								
No evidence reported								
Adverse effect – Urinary retention								
1 (deCuyper et al., 2008)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	9.1%	VERY LOW
Adverse effect – Voiding dysfunction								
No evidence reported								
Adverse effect – De novo OAB symptoms								
1 (deCuyper et al., 2008)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	9.1%	VERY LOW
Psychological outcomes								
No evidence reported								
Clinical outcomes								
No evidence reported								

1 High risk of performance bias and attrition bias due to lack of blinding in this study

2 A single study analysis

3 Population, intervention and outcome was as specified in the review protocol
4 Not calculated for this data
OAB overactive bladder, SD standard deviation

GRADE profile I.9.20 GRADE findings for a laparoscopic Burch Colposuspension

Quality assessment							**Number of women**	**Quality**
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
Patient satisfaction with treatment – using a 0-10 visual analogue scale								
No evidence reported								
Self-reported rate of absolute reduction in symptoms								
No evidence reported								
Continence status (zero episodes per day)								
1 (Giarenis et al., 2012)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	76.9%	VERY LOW
Incontinence-specific quality of life								
No evidence reported								
Adverse effect – Tissue injury								
No evidence reported								
Adverse effect – Tape erosion								
No evidence reported								
Adverse effect – Urinary retention								
No evidence reported								
Adverse effect – Voiding dysfunction								
1 (Giarenis et al., 2012)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	7.7%	VERY LOW
Adverse effect – De novo OAB symptoms								

Quality assessment							Number of women	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Effect (range)**	
1 (Giarenis et al., 2012)	Chart review	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	40%	VERY LOW
Psychological outcomes								
No studies identified								
Clinical outcomes								
No studies identified								

1 High risk of performance bias and attrition bias due to lack of blinding in this study

2 A single study analysis

3 Population, intervention and outcome was as specified in the review protocol

4 Not calculated for this data

OAB overactive bladder

GRADE profile I.9.21 GRADE findings for a bulking agent injection

Quality assessment							Number of patients			Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Cured**	**Total**	**Percentage**	
Patient satisfaction with treatment – using a 0-10 visual analogue scale										
1 (Lee et al., 2010a)	Chart review	Serious risk of bias[1]	Not applicable[2]	Serious risk of bias[3]	No serious risk of bias[4]	None	18	23	78.3%	VERY LOW
Self-reported rate of absolute reduction in symptoms										
No evidence reported										
Continence status (zero episodes per day)										

Quality assessment							Number of patients			Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Cured**	**Total**	**Percentage**	
1 (Lee et al., 2010a)	Chart review	Serious risk of bias[1]	Not applicable[2]	Serious risk of bias[3]	No serious risk of bias[4]	None	8	23	34.6%	VERY LOW
Incontinence-specific quality of life – Incontinence – Quality of Life (Better indicated by higher values)										
1 (Lee et al., 2010a)	Chart review	Serious risk of bias[1]	Not applicable[2]	Serious risk of bias[3]	No serious risk of bias[4]	None	Increased by a mean of 19.2 points (no SD reported)			VERY LOW
Adverse effects – Tissue injury										
No evidence reported										
Adverse effects – Urinary retention										
No evidence reported										
Adverse effects – Voiding dysfunction										
No evidence reported										
Adverse effects – de novo OAB symptoms										
No evidence reported										
Psychological outcomes										
No evidence reported										
Clinical outcomes – Post-void residual volume										
1 (Lee et al., 2010a)	Chart review	Serious risk of bias[1]	Not applicable[2]	Serious risk of bias[3]	No serious risk of bias[4]	None	Changed from a mean (SD) of 31.0 (SD 50.7) to 30.8 (SD 41.8)			VERY LOW

1 High risk of performance bias and attrition bias due to lack of blinding in this study

2 A single study analysis

3 Population, intervention and outcome was as specified in the review protocol

4 Not calculated for this data

SD standard deviation

GRADE profile I.9.22 GRADE findings for a tape shortening procedure

Quality assessment							Number of women	Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Percentage**	
Patient satisfaction with treatment								
No evidence reported								
Self-reported rate of absolute reduction in symptoms								
No evidence reported								
Continence status (zero episodes per day)								
2 (Han et al., 2012; Lo et al., 2006)	Observational studies	Serious risk of bias[1]	No serious risk of bias[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	47% to 71%	VERY LOW
Incontinence-specific quality of life								
No evidence reported								
Adverse effects – Tissue injury								
No evidence reported								
Adverse effects – Urinary retention								
No evidence reported								
Adverse effects – Voiding dysfunction								
No evidence reported								
Adverse effects de novo OAB symptoms								
1 (Han et al., 2012)	Observational study	Serious risk of bias[1]	No serious risk of bias[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	15.8%	VERY LOW
Psychological outcomes								
No evidence reported								

Quality assessment							Number of women	Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Percentage	
Clinical outcomes								
No evidence reported								

1 High risk of performance bias and attrition bias due to lack of blinding in this study

2 A single study analysis

3 Population, intervention and outcome was as specified in the review protocol

4 Not calculated for this data

OAB overactive bladder

GRADE profile I.9.23 GRADE findings for a re-suturing following erosion of a primary tape procedure

Quality assessment							Number of women			Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cured	Total	Percentage	
Patient satisfaction with treatment										
No evidence reported										
Self-reported rate of absolute reduction in symptoms										
No evidence reported										
Continence status (zero episodes per day)										
1 (Kuhn et al., 2009)	Case-series	Serious risk of bias[1]	Not applicable[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	16	18	88.9%	VERY LOW
Incontinence-specific quality of life										
No evidence reported										
Adverse effects										
No evidence reported										
Psychological outcomes										

Quality assessment							Number of women			Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cured	Total	Percentage	
No evidence reported										
Clinical outcomes										
No evidence reported										

1 High risk of performance bias and attrition bias due to lack of blinding in this study

2 A single study analysis

3 Population, intervention and outcome was as specified in the review protocol

4 Not calculated for this data

GRADE profile I.9.24 GRADE findings for a tape adjustment for voiding problems or retention

Quality assessment						Number of women		Quality
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Percentage	
Patient satisfaction with treatment								
No evidence reported								
Self-reported rate of absolute reduction in symptoms								
No evidence reported								
Continence status (zero episodes per day)								
3 (Agnew et al., 2012; Molden et al., 2010; Schmid et al., 2010)	Observational studies	Serious risk of bias[1]	No serious risk of bias[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	81% to 89%	VERY LOW
Incontinence-specific quality of life								
No evidence reported								
Adverse effects – Tissue injury								

Quality assessment						Number of women		Quality
Number of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Percentage**	
No evidence reported								
Adverse effects – Urinary retention								
No evidence reported								
Adverse effects – Voiding dysfunction								
2 (Agnew et al., 2012; Molden et al., 2010)	Observational study	Serious risk of bias[1]	No serious risk of bias[2]	No serious risk of bias[3]	No serious risk of bias[4]	None	12.7% to 19.1%	VERY LOW
Adverse effects de novo OAB symptoms								
No evidence reported								
Psychological outcomes								
No evidence reported								
Clinical outcomes								
No evidence reported								

[1] High risk of performance bias and attrition bias due to lack of blinding in this study

[2] A single study analysis

[3] Population, intervention and outcome was as specified in the review protocol

[4] Not calculated for this data

OAB overactive bladder

Appendix J Key priorities for research

What is the effectiveness of different pelvic floor muscle training regimens in the management of women with overactive bladder (OAB) symptoms and to whom should it be offered?

Explanation
For many women with urinary incontinence symptoms, management of their condition will take place predominantly in primary and community care. Pelvic floor muscle training may be their only experience of therapeutic intervention. It is not currently known whether different pelvic floor muscle training regimens have an impact on treatment outcomes. It is also not known whether other factors also have an impact on its effectiveness. These factors include the way that the training is offered, the technique that is taught, the intensity and frequency of training, and the length of time that pelvic floor muscle training is continued. Because pelvic floor muscle training is widely used in clinical practice, robust evaluation is needed to identify whether these or other factors have an important impact on patient-centred outcomes.

What is the comparative effectiveness and cost-effectiveness of transcutaneous stimulation of the sacral nerve roots, and transcutaneous and percutaneous stimulation posterior tibial nerve stimulation for the treatment of OAB?

Explanation
Transcutaneous neurostimulation can be applied either over the sacrum or over the posterior tibial nerve to modulate the sacral nerve supply to the bladder. The treatment uses surface electrodes and the woman can carry it out in her own home. Percutaneous posterior tibial nerve stimulation involves the introduction of a needle in the region of the posterior tibial nerve near the ankle, and at present is carried out in clinics in secondary care. Currently, it is offered widely as a conservative treatment for OAB without adequate evidence that it is effective. Although this is a relatively low cost treatment, both the equipment and staff time have a cost implication, and because it has been widely used in conservative management this has large resource consequences for the NHS. Robust evidence is needed to establish whether it is a cost-effective option relative to other conservative therapies for all women or for a selected group of patients who are unsuitable for or have unsuccessful botulinum toxin A, percutaneous sacral nerve stimulation or OAB drug treatment

What is the long term effectiveness, optimal dose and optimal frequency of repeat therapy of botulinum toxin A in women with OAB based on detrusor overactivity including risk of adverse events such as urinary infection and intermittent catheterisation?

Explanation
There are currently no trials looking at long-term outcomes, quality of life, satisfaction, optimal dose, optimal frequency and long-term adverse effects of botulinum toxin A for women with OAB. Further research into these outcomes will have an impact on future updates of key recommendations within the guideline and would impact on how resources are used within urinary incontinence services. Effective treatment with botulinum toxin A may need repeated injections to remain effective but the frequency of these is not reported in the current evidence. Botulinum toxin A has the potential to cause incomplete bladder emptying resulting in the need for women to perform catheterisation indefinitely. This not only has financial implications but catheterisation and the morbidity associated with it will not always be acceptable to women. Additionally, there are currently no data on whether repeated botulinum toxin A injections alter bladder function

What is the effectiveness and optimum sequence of treatment with Botulinum toxin A and percutaneous sacral nerve stimulation (P-SNS) for the treatment of OAB after failed conservative (including drug) management?

Criterion	Explanation
It is not currently known which treatment option, either botulinum toxin A or percutaneous sacral nerve stimulation, is the most effective in the medium- and long-term for women with OAB in whom initial treatment, including OAB drugs, has failed. The initial outlay for percutaneous sacral nerve stimulation is high but when successful it appears to be effective. Botulinum toxin A also has a high failure rate but a lower outlay and it is not yet understood the cost threshold (in terms of treatment cycles or length of follow-up) at which botulinum toxin A is likely to be the less cost-effective option compared with percutaneous sacral nerve stimulation. Currently, funding for percutaneous sacral nerve stimulation is on an individual basis because of its high cost, leading to geographical inequalities in access. A head-to-head longitudinal study of these 2 treatments would determine both which should be offered first and at what point in the treatment pathway. Such studies have not been done. This evidence could reduce inequalities in access to treatment. In subsequent NICE guidance, evidence would be available to inform recommendations on the treatment pathway and at which point in the treatment pathway for OAB each of these options should be offered. It would also provide more robust information to patients about the risk of adverse events and support women's choice about whether to proceed with treatment.	

What are the effects of the following predictors on tape failure?

- Age per decade (outcome defined as recurrent stress urinary incontinence)
- Lower maximum urethral closure pressure (MUCP) (reference not stated)
- Secondary surgery versus primary surgery (patient reported outcome)
- Higher maximal flow rate
- Concurrent pelvic organ prolapse surgery
- Nocturia versus no nocturia (patient reported outcome)
- Urgency versus no urgency (patient reported outcome)
- Pad weight (per 10 g)
- Previous UI surgery versus no surgery
- Q-tip maximum straining less than 30 degrees, yes versus no
- Urge score (per 10 points)
- Urgency symptoms versus no urgency symptoms
- More than 20 procedures for each surgeon versus first 10 procedures for each surgeon (outcome 1)
- More than 20 procedures for each surgeon versus first 10 procedures for each surgeon (outcome 2)
- General anaesthesia versus local anaesthesia
- Body mass index over 35 versus 30 or less (patient reported outcome)
- MUCP 31 or more versus 30 or less (objective outcome)
- Primary surgery versus secondary surgery (objective outcome)
- Preoperative anticholinergic medication use versus no use

Criterion	Explanation
The factors identified for this research question are thought anecdotally by surgeons to have an impact on the	

outcome of tape surgery but there is little robust evidence in the literature. Certain patient factors such as older age and increased weight are thought to produce a higher chance of recurrent symptoms. Similarly, the effect of previous incontinence surgery, concomitant prolapse surgery and the 'learning curve' of the surgeon are all thought to have adverse effects on outcome (including an increased chance of urgency incontinence). In addition there is little robust evidence regarding the effect of previous urgency incontinence, higher maximum flow rates, nocturia or preoperative use of anticholinergics on the occurrence of post-operative urgency and bladder overactivity. It would be useful to be able to individualise treatment by understanding these risks in more detail.

Appendix K Deleted 2006 text

X.X Information provision

No evidence was identified in relation to whether providing information to a woman has an impact in terms of her satisfaction with the outcomes of treatment for UI or OAB.

While there is a lack of evidence in relation to the information given to women with UI, women need the right information, at the right time, with the support they need to use it. It is well recognised in the healthcare community that clear communication, the involvement of service users and the provision of timely evidence-based information are key elements in moving towards a genuinely patient-centred service. Improving information for patients was a commitment in the NHS Plan[184] and part of the recommendations in the Kennedy Report.[185] There are NHS guidelines on the importance of patient information and a toolkit to help develop these can be downloaded from www.nhsidentity.nhs.uk/patientinformationtoolkit/index.htm.

Patients' desire for information may be underestimated in the majority of cases, although it is also recognised that individual patients' desire for information varies.[186] Information 'seekers' may cope better with more information, and information 'avoiders' cope better with less.

Women presenting with symptoms of UI need information that helps them to understand the various types of UI, their symptoms, investigations and the treatments recommended. They need to feel confident that the information provided is based on valid, systematic research into which clinical procedures, drug therapies and medical devices are most effective. However, patients and their families need information that is both scientifically valid and understandable. Since patients make important medical decisions with their clinicians (not separately from them), information provided must be designed for use by patients with their clinicians.

Women with UI should also be given information on where else to go for help and support, for example patient organisations such as Incontact (www.incontact.org) and the Continence Foundation (www.continence-foundation.org.uk).

X.X Conservative management

In this chapter we refer to those therapies used for UI that do not involve surgery. These include lifestyle interventions, physical, behavioural, drug and complementary therapies, and nontherapeutic interventions (products that collect or contain leakage). The preventive use of physical and behavioural therapies and of lifestyle interventions is also considered.

X.X Physical therapies

Case series of up to 3 weeks' duration show improvements in frequency and nocturia with TENS, although the available data do not allow conclusions to be drawn as to the efficacy of TENS in women with UI. [EL = 3]

Data on posterior tibial nerve stimulation are mainly derived from case series of men and women with OAB, which show improvement in leakage episodes, frequency, voided volume and QOL with treatment for up to 3 months. Symptoms recur on treatment withdrawal. Adverse effects reported relate to needle insertion site (pain, tenderness, haematoma). Combining oxybutynin treatment with posterior tibial nerve stimulation did not lead to additional benefit. Overall the available data are inadequate to define the place of posterior tibial nerve stimulation for UI or OAB. [EL = 3]

X.X Transcutaneous electrical nerve stimulation and Posterior tibial nerve stimulation

Transcutaneous electrical nerve stimulation (TENS) is a form of electrical nerve stimulation in which the electrodes are placed over the dermatomes of S2 to S4 for long periods of time, daily. The Stoller afferent nerve stimulator (SANS) involves inserting a fine gauge needle into the posterior tibial nerve just above the ankle. The tibial nerve then carries an electrical stimulation in an afferent direction to the sacral spine.

X.X Posterior tibial nerve stimulation

Posterior tibial nerve stimulation was considered in one RCT,[286] and in five case series of patients with OAB.[287–293] Except for one study that included only women, others also included men(predominantly women). Patient numbers ranged from 15 to 90 (total 282).

Posterior nerve stimulation was delivered via a SANS device. The stimulation protocol involved a fixed pulse width and frequency, with amplitude tailored to individual patients. The treatment regimen varied from 30 minutes three or four times a week for 3 or 4 weeks, to 30–60 minutes once weekly for 8–12 weeks. End of treatment results were reported except for one study that had follow-up to 3 years (mean 21 months).[292]

The RCT evaluated the effects of oxybutynin 5 mg daily in addition to PTNS compared with PTNS alone in men and women (n = 43; 88% women). Improvements in frequency, urgency and urge UI episodes were noted with both treatments, with no significant difference between groups in 'response rates'.[286][EL = 3]

The smallest case series noted that two-thirds of patients achieved cure or partial response (n = 15).[290] Across the others, significant improvements in all outcomes were seen (leakage episodes, frequency and voided volumes).[287–289,291–293] Quality of life (I-QOL and SF-36) was improved (two studies).[287–289,293] In 11 patients from one case series,[293] in whom treatment was maintained for a mean of 13 months, treatment was withheld for 6 weeks and then re-introduced. This study showed that symptoms deteriorated when treatment was withdrawn and that the majority of patients reported some improvement in symptoms 4 weeks after re-introducing treatment.[294]

There were case reports of adverse effects across the studies. Those related to site of needle insertion were haematoma, minor bleeding, temporary painful/numb feeling, throbbing and transient local tenderness. Systemic effects noted were diarrhoea, cramps, headache, lower back pain, moderate right foot pain and stomach discomfort (no numerical data). Adverse effects reported in the group treated with PTNS and oxybutynin were dry mouth and blurred vision.[286]

Number	Research recommendations
	There is a need for a robust evaluation of transcutaneous electrical nerve stimulation and posterior tibial nerve stimulation for the treatment of UI.

X.X Products to prevent leakage

Two of these products are known to be available or could be obtained by women in the UK (Contrelle® Activgard [formerly known as Conveen Contiguard, or Continence Guard], and FemSoft®). Neither product can be provided on NHS prescription. The Rocket® incontinence device is also available, but no studies were found regarding its use. Many of the other products listed are known to have been withdrawn from the UK market for commercial reasons (Contiform®, FemAssist®, CapSure®,[479] Reliance®).

x.x Drug therapies

x.x Antimuscarinic drugs

Drugs with antimuscarinic action are used to treat OAB. They block muscarinic receptors in the bladder, which reduces the ability of bladder muscle to contract and affects bladder sensation. The drugs differ in their selectivity for various muscarinic receptors, and some drugs have additional actions such as direct smooth muscle effects.

Several systematic reviews of antimuscarinic drugs for the treatment of UI and/or OAB were identified.[335–340] These reviews included studies conducted only in men, and in patients with neurogenic bladders, both of which are outside the scope of this guideline. The fully published RCTs included in these reviews were thus considered individually, together with other relevant RCTs. In addition, because of the relatively short duration of most RCTs, case series (so-called 'extension studies') were also considered as these provide longer term data.

The use of antimuscarinic drugs with bladder training was considered in the behavioural section (x.x.x). Studies evaluating imipramine, oxybutynin and tolterodine in this context were identified, which showed that the combination of antimuscarinic drugs and bladder training programmes resulted in greater reduction in frequency but did not lead to further improvements in incontinence.[308–311]

In the following section, placebo-controlled studies of antimuscarinic drugs are considered first, followed by comparisons of the drugs.

Placebo-controlled trials of antimuscarinic drugs

Darifenacin

Two DB RCTs compared darifenacin extended release (ER) with placebo in men and women (n = 398, n = 561; ~85% women) with urge UI, frequency and urgency. In both studies, significantly greater improvement in leakage episodes, frequency, urgency episodes and severity were seen with darifenacin 7.5–15 mg compared with placebo after 12 weeks' treatment. Reductions in leakage episodes of 62–73% were reported with darifenacin compared with 49–56% with placebo, the reductions in frequency episodes were in the range 15–19% versus 8–10%, and for urgency 28–29% versus 11–13%. No significant differences were seen between darifenacin and placebo groups in changes in nocturnal awakening due to OAB. Adverse effects occurring more frequently with darifenacin included constipation (14–21% versus ~7%), dry mouth (19– 31% versus 9%) and headache (4–7% versus 2–5%).[341,342] One of the studies also had a darifenacin 3.75 mg treatment arm, for which no formal comparisons were made against placebo.[341] [EL = 1+]

A further two placebo-controlled RCTs of 2 and 12 weeks' duration were designed to evaluate the effects of darifenacin ER 30 mg on the outcome of warning time in men and women with urgency (n = 72; 71% women) or urge UI (n = 439).[343,344] One study was of poor quality[343] [EL = 1−] while the other was of good quality.[344] [EL = 1+] Neither study reported significant differences between groups in this outcome, nor in urgency episodes. Urge UI episodes were significantly reduced with darifenacin compared with placebo in the larger study.[343]

Flavoxate

Two DB placebo-controlled crossover RCTs evaluated 2 weeks' treatment with flavoxate for idiopathic DO.[345,346] The first RCT in men and women (n = 41; only 25 analysed; 48% women) found no significant differences between flavoxate 200 mg t.d.s. and placebo in any urodynamic parameters. Complete results were not given for frequency, the only other outcome.[345] [EL = 1−] The second RCT, in women only, found no significant differences between flavoxate 200 mg q.d.s. and placebo in frequency (median per three days 25 versus 23), nocturia (medians 3 versus 0), or leakage episodes (medians 1 versus 0) after treatment (n = 20). The most common adverse effects reported across all treatment groups were dry mouth (5–7%), and nausea or heartburn (2–7%).[346] [EL = 1+]

A DB randomised study compared two different daily doses of flavoxate (600 or 1200 mg), given for 4 weeks to women with sensory and/or motor urge syndrome or incontinence (n = 27). Symptoms were scored on a scale of 0 to 2; no results were provided for individual symptoms although it was reported that total scores fell from baseline in both groups. Of the urodynamic variables evaluated, greater benefit was seen with the 1200 mg dose in volume at first desire to void and in bladder volume at capacity. Nausea was reported by about 22% of the women.[347] [EL = 1−]

A further RCT compared a combination of flavoxate and imipramine with bladder training. Significantly more women were subjectively or objectively cured after 4 weeks' bladder training than with drug therapy (n = 50).[307] [EL = 1+]

Oxybutynin

Four RCTs of 8–12 weeks' duration compared various formulations and/or doses of oxybutynin (oral in three, transdermal in one) and tolterodine, in studies that also included placebo arms. The studies generally showed greater benefit in efficacy outcomes with oxybutynin and tolterodine compared with

placebo, although with varying statistical significance. Reductions in frequency of 15–21% were seen with oxybutynin and tolterodine compared with 10–11% with placebo, reductions in leakage episodes were 46–77% versus 19–46%, and subjective improvement rates were 38–73% versus 22–53%.[349–352]

Another placebo-controlled crossover RCT evaluated immediate release (IR) oxybutynin 2.5 – 5 mg t.d.s. in cognitively impaired elderly nursing home residents who had not responded to 2 hourly prompted voiding (n = 75; 78% women). Significant improvement in leakage episodes was reported with IR oxybutynin after 20 days' treatment (40% versus 18% had one or fewer episodes per day). No other outcomes were significantly different (change in leakage episodes, continent voids).[331] [EL = 1+]

Transdermal oxybutynin was evaluated in a DB placebo-controlled RCT in women with urge UI and frequency, 66% of who had mixed UI (n = 520). Three doses were assessed: 1.3, 2.6 and 3.9 mg. Significantly greater improvement in outcomes was seen with oxybutynin 3.9 mg compared with placebo after 12 weeks' treatment (leakage episodes, frequency and IIQ scores) but not with other dosages. Of the 22% previously treated with antimuscarinics, 'similar trends' in results were reported.[353] [EL = 1+] A further 12 weeks' open use of transdermal oxybutynin by 411 patients generally showed sustained improvement in leakage episodes, frequency, and QOL (IIQ) with all doses. Application-site reactions and dry mouth were common with oxybutynin.[353] [EL = 3]

One RCT evaluated 12 days' treatment with intravesical oxybutynin (20 mg) compared with placebo in women with frequency and DO (n = 56; 43 analysed). Nine women withdrew from treatment, three from the active group owing to the need for daily catheterisation and six from the placebo group owing to lack of improvement; all were excluded from the analyses. In the remaining women who were assessed 2 weeks after treatment, improvements in frequency and bladder capacity were seen in both groups, with no between-group analyses reported.[354] [EL= 1−]

Propiverine

A DB placebo-controlled RCT was conducted to evaluate the cardiac effects of propiverine in men and women with frequency, urgency, and mixed or urge UI during 4 weeks' treatment (n = 107; 98 analysed; 79% women). Urinary outcomes were reported although the groups were not balanced at baseline for these outcomes. Additionally, no between-group comparisons were made. Of the cardiac monitoring undertaken, the only difference noted between groups was a greater increase in minimum heart rate on a 24 hour electrocardiogram with propiverine than with placebo.[355] [EL = 1−]

A randomised study evaluated four dosages of propiverine (15, 30, 45 and 60 mg daily) given for 3 weeks to men and women with urge UI (43%) or urgency (57%) (n = 185; 98% women). Improvements from baseline were seen in all dosage groups in frequency and in urodynamic parameters. Blurred vision was the most common adverse effect (8–26%), followed by dry mouth (6 – 27%). A dose–response effect was evident for adverse effects. Subjective efficacy and tolerability showed optimum effects with the 30 mg dose.[356] [EL = 1+]

Solifenacin

One DB dose-finding RCT evaluated solifenacin daily doses of 2.5, 5, 10 and 20 mg compared with tolterodine 2 mg b.d. and placebo in men and women with idiopathic DO (n = 225; ~60% women). After 4 weeks' treatment, reduction in frequency was significantly greater with 5, 10 and 20 mg solifenacin compared with placebo (18–23% versus 9%). No significant differences were seen between solifenacin and placebo groups in leakage and urgency episodes. QOL (CONTILIFE) was significantly improved in all solifenacin groups compared with placebo. Adverse effects seen with solifenacin (dry mouth, constipation, blurred vision) showed a dose–response relationship.[357] [EL = 1+]

Two DB RCTs of 12 weeks' duration compared solifenacin 5 mg o.d. and 10 mg o.d. with placebo in men and women with OAB (the proportions of women were 75% and 82%).[358,359] Overall, 57% had UI in one study (47% urge UI),[358] and 93% in the other (63% urge UI).[359] One study also had a tolterodine 2 mg b.d. treatment arm.[359] About 33% in both studies had had prior drug treatment for OAB; treatment response in these patients was not considered separately. In one of the studies, reductions in frequency, leakage and urgency episodes were significantly greater with solifenacin 5 and 10 mg compared with placebo. Reduction in nocturia was significantly greater with solifenacin 10 mg versus placebo (n = 857).[358] In the second study, significantly greater reductions in frequency were seen with both solifenacin doses and with tolterodine compared with placebo. Reductions in urgency

and leakage episodes were significantly greater with solifenacin 5 and 10 mg compared with placebo (n = 1033).[359]

Across the studies, the improvements in each outcome with solifenacin, tolterodine and placebo were: frequency 17–22% versus 15% versus 8–13%; leakage episodes 47–61% versus 59% versus 28–29%; urgency episodes 51–55% versus 38% versus 33%; nocturia 25–39% solifenacin versus 16% placebo. Adverse effects reported in both studies were dry mouth, constipation and blurred vision, which occurred in more solifenacin-treated patients than with placebo.[358,359] [EL = 1+]

A total of 1633 (91%) of the patients from the two 12 week RCTs took solifenacin 5 or 10 mg for up to 1 year. The results indicate continued benefit. Dry mouth was the most common adverse effect, reported by 21%.[360] [EL = 3]

Results for QOL (KHQ) during both RCTs[358,359] and the case series[360] have been published separately. Pooled results from the RCTs show significantly greater improvements in nine of ten domains (except personal relationships) with solifenacin 5mg or 10mg compared with placebo. The longer term study suggested sustained improvement.[361] [EL = 3]

Tolterodine

Three DB RCTs compared 4 weeks' treatment with tolterodine 1 mg and 2 mg b.d. with placebo in men and women with frequency, urgency and/or urge UI (72–75%). The majority of patients were women (65–79% of n = 670).[362–364] One enrolled patients aged at least 65 years.[362] In one study, significantly greater reductions in frequency, urgency and leakage episodes were seen with tolterodine 2 mg b.d., although groups were not balanced at baseline in frequency or leakage. Dry mouth was significantly more common in tolterodine-treated patients. Response to treatment in patients who had previously received drug treatment for OAB was not considered separately.[362] [EL = 1−]

In the second study, significantly greater reductions in leakage episodes were seen with both tolterodine doses compared with placebo (41% versus 17%), with no significant differences between tolterodine and placebo in improvements in frequency (13% versus 10% reporting reductions). Of the 75% of patients who had poor efficacy response to prior drug treatment, 37–51% across the groups in this study had a 'good response'. Dry mouth was significantly more common in the tolterodine 2 mg b.d. group compared with placebo (34% versus 6%).[364] [EL = 1+] The third RCT only reported urodynamic outcomes, with no bladder diary data or patients' perception of change. Increases in volume at first contraction and maximum cystometric capacity were significantly greater with tolterodine 2 mg b.d. compared with placebo.[363] [EL = 1+]

Following completion of these three studies, patients were offered continued treatment with tolterodine 2 mg b.d. for a further 12 months.[365] Overall, 62% continued treatment for this duration, with 23% reducing the dose to 1 mg b.d. Reasons stated for withdrawal were adverse events (15%), loss to follow-up or withdrew consent (17%). The results for bladder diary variables indicate sustained benefit in those who continued treatment. Dry mouth was the most common adverse effect.[365] [EL = 3]

One DB placebo-controlled RCT evaluated 12 weeks' treatment with tolterodine 1 mg and 2 mg b.d. in men and women with DO (n = 316; 75% women). Significantly greater reductions in frequency were seen with both tolterodine groups compared with placebo (~20% versus 12%). More patients treated with tolterodine 2 mg b.d. reported improvement compared with other groups. No other significant differences were seen (leakage episodes, cure or adverse effects). Overall, 46% had had prior drug treatment for OAB; results in these patients were not considered separately.[366] [EL = 1+]

Four RCTs of 8–12 weeks' duration that compared oxybutynin (oral in three, transdermal in one) with tolterodine also had placebo arms. The studies generally showed greater benefit in efficacy outcomes with oxybutynin and tolterodine compared with placebo, although with varying statistical significance. Reductions in frequency of 15–21% were seen with oxybutynin and tolterodine, compared with 10–11% with placebo; reductions in leakage episodes ranged from 46% to 77% versus 19–46%, and subjective improvement rates ranged from 38% to 73% versus 22–53% (see later).[349–352]

Extended release tolterodine

Two formulations of tolterodine (2 mg b.d. and 4mg ER o.d.) were compared in a 12 week placebo controlled DB RCT in men and women with frequency and urge UI (n = 1529; 81% women). Two-thirds of the population were aged at least 65 years. Significantly greater improvements in outcomes

were seen in both tolterodine groups compared with placebo (reductions in frequency of 15% versus 17% versus 11%; leakage episodes 46% versus 53% versus 30%). QOL was assessed using KHQ and SF-36 questionnaires. In both tolterodine groups, improvements in six or seven of the ten KHQ domains were greater than with placebo. No differences were seen between groups in the SF-36. Dry mouth was reported by significantly fewer patients treated with ER than standard tolterodine (23% versus 30%, compared with 8% placebo).[367–373] [EL = 1+] No differences in efficacy or tolerability were seen in older (65 years or above) compared with younger patients.[369]

Following completion of this study, patients were offered continued treatment with ER tolterodine 4 mg for 12 months.[374] Overall, 71% continued treatment (n = 1077; 82% women). Reason stated for withdrawal included adverse events (10%) and loss to follow-up or withdrawal of consent (8%). The results for bladder diary variables indicated sustained benefit for those who continued treatment. Dry mouth was the most common adverse effect.[374] [EL = 3]

A further DB placebo-controlled RCT compared ER tolterodine 4 mg o.d. with placebo in women with urge-predominant mixed UI, frequency and urgency over 8 weeks (n = 854). Significantly greater improvements were seen with tolterodine compared with placebo in frequency, urge leakage episodes, urgency, subjective improvement and QOL (KHQ). In women with predominant stress UI (25%), improvements in leakage episodes were not significantly different between groups. Significantly more tolterodine-treated women reported dry mouth.[375] EL = 1++]

Trospium

Results from two placebo-controlled RCTs[376,377] that evaluated 3 weeks' treatment with trospium 20 mg b.d., in men and women with DO were pooled in a meta-analysis (n = 508; 69% women). The main outcomes were urodynamic parameters, with greater improvement reported with trospium in maximum cystometric capacity and volume at first contraction. More trospium-treated patients reported subjective cure or marked improvement of symptoms.[378] [EL = 1+]

Three further placebo-controlled RCTs evaluated trospium.[379–381] Two evaluated trospium 20 mg b.d. in men and women with symptoms of OAB (total n = 1170; 78% women). Improvements in efficacy outcomes were significantly greater with trospium after 12 weeks' treatment (frequency, urgency, urge UI episodes, QOL [IIQ]). Dry mouth was reported by more trospium-treated patients (21% versus 6%).[380,381] [EL = 1+] A smaller RCT of 4 weeks' duration compared trospium 15 mg t.d.s. with placebo in men and women with urge UI. No differences in adverse effects or in maximum cystometric capacity were found between groups, although groups were not balanced at baseline for cystometric capacity (n = 46; ~92% women).[379] [EL = 1−]

Comparisons of antimuscarinic drugs

Immediate release oxybutynin versus flavoxate

A DB crossover RCT compared flavoxate 400 mg t.d.s. with IR oxybutynin 5 mg t.d.s. in women with urgency (n = 50; only 41 analysed). No significant differences were found between groups in urodynamic findings or subjective cure or improvement after 4 weeks' treatment. Bladder diary outcomes were assessed using a scoring system of 0 to 2, with no between-group analyses reported. Significantly more oxybutynin-treated women reported adverse effects (90% versus 27%).[382] [EL = 1−]

Immediate release oxybutynin versus propantheline

A single-blind crossover RCT compared propantheline 15 mg t.d.s. with IR oxybutynin 5 mg t.d.s. in women with OAB (n = 23). Significantly greater increases in cystometric capacity were seen with oxybutynin compared with propantheline after 4 weeks' treatment (36% versus 17%), with no differences between treatments in frequency, subjective improvement or adverse effects.[383] [EL = 1+]

Immediate release oxybutynin versus propiverine

One DB placebo-controlled RCT compared 4 weeks' treatment with IR oxybutynin 5 mg b.d. and propiverine 15 mg t.d.s. in men and women with urgency or urge UI (n = 366; 310 analysed; 93% women). Physician's assessment of improvement, and incidence of adverse effects, was significantly higher with both drugs than with placebo. No other significant differences were identified between the three groups (frequency, urgency or cystometric capacity). Results for only 85% were analysed, with no explanation for withdrawals.[384] [EL = 1−]

Oxybutynin versus tolterodine

Oxybutynin and tolterodine were compared in ten RCTs, six of which were DB comparisons of standard (immediate release) formulations of both drugs (oxybutynin 5 mg b.d. or t.d.s. with tolterodine 2 mg b.d.).[349,350,385–388] The four other comparisons were: transdermal oxybutynin versus ER tolterodine;[351] IR oxybutynin versus ER tolterodine;[352] ER oxybutynin versus IR tolterodine;[389,390] and ER formulations of both drugs.[391–393]

Immediate release oxybutynin versus tolterodine

Four DB studies compared the effectiveness of oxybutynin and tolterodine, in men and women (predominantly women; 67–77%) with OAB. Duration of treatment ranged from 8 to 12 weeks.[349,350,385,386] Across the studies, between 27% and 60% of the study populations had previously received drug treatment for OAB or urge UI. The response to treatment in these groups was not considered separately in the study reports.

Two of the four RCTs compared tolterodine 2 mg b.d. with oxybutynin 5 mg b.d. (starting at a lower dose of 2.5 mg b.d.). The primary outcome of dry mouth occurred in significantly more oxybutynin-treated patients than with tolterodine (61% versus 37%). No significant differences were seen between groups in efficacy outcomes (n = 378).[386] [EL = 1+] A study in Asian patients reported similar findings (n = 228).[385] [EL = 1+]

Two placebo-controlled RCTs of identical design compared tolterodine 2 mg b.d. with oxybutynin 5 mg t.d.s., although one only reported efficacy data for completers (53% of those randomised). Both found no significant differences between treatments in frequency or in leakage episodes, while significantly more people treated with oxybutynin reported dry mouth. Improvements in efficacy outcomes were significantly greater with tolterodine and oxybutynin compared with placebo (n = 293),[349] [EL = 1+] (n = 277; 147 analysed).[350] [EL = 1−] Following completion of these two studies (and two other RCTs), patients were offered continued open treatment with tolterodine 2 mg b.d. for a further 9 months.[394] Overall 70% continued treatment, with 13% reducing the dose to 1 mg b.d. Reasons stated for withdrawal were adverse events (9%), lack of efficacy (6%), loss to follow-up or withdrew consent (10%). Bladder diary variables indicated sustained benefit in those who continued treatment. Dry mouth was the most common adverse effect (28%).[394] [EL = 3]

Two open RCTs with specific objectives provide further comparative data for tolterodine and oxybutynin in women with OAB. Duration of treatment was 10–12 weeks; one was a crossover study.[387,388] The main objective of one study was to assess whether urodynamic grade predicts response to treatment; this also reported no differences between tolterodine 2 mg b.d. and oxybutynin 5 mg t.d.s. in frequency or cystometric capacity (n = 128; 107 analysed).[387] [EL = 1−] The other RCT evaluated the impact of dry mouth with tolterodine 2 mg b.d. and oxybutynin 5 mg b.d. using a 'Xerostomia Questionnaire.' The authors reported no significant differences between groups in this outcome, but no numerical results were presented.[388] [EL = 1+]

Transdermal oxybutynin versus extended release tolterodine

Transdermal oxybutynin 3.9 mg was compared with ER tolterodine 4 mg o.d. in a placebocontrolled DB RCT in men and women with frequency and urge UI (n = 361; 93% women). No significant differences were seen between active treatments in any outcome (frequency, leakage episodes, QOL, adverse effects) after 12 weeks' treatment. Improvements in frequency were significantly greater with tolterodine compared with placebo, and significantly greater benefit was seen in leakage episodes and subjective cure or improvement with both active drugs compared with placebo.[351] [EL = 1+]

Immediate release oxybutynin versus extended release tolterodine

Extended release tolterodine 4 mg o.d. was compared with IR oxybutynin 3 mg t.d.s. in a placebocontrolled DB RCT in men and women with urgency, frequency, and urge UI (n = 605; 70% women). No differences in efficacy measures were seen between tolterodine or oxybutynin, but fewer people treated with tolterodine experienced dry mouth after 12 weeks' treatment. Improvements in leakage episodes and frequency were significantly greater with active treatment compared with placebo. No significant differences were seen between the three groups in the proportion of people reporting improvement. Overall, 24% had received prior drug treatment for OAB; the response in these patients was not considered separately.[352] [EL = 1+] Treatment was continued in 31% of patients for up to 12 months; the results available indicate continued efficacy.[395] [EL = 3]

Extended release oxybutynin versus immediate release tolterodine

One DB RCT compared IR tolterodine 2mg b.d. with ER oxybutynin 10 mg o.d. in men and women with urge UI, of whom 40% had previously been treated with antimuscarinic drugs (n = 378; 83% women). Results were presented for study completers only (88%), with statistical analysis quoted for all patients randomised, which indicated consistent effects. Significantly greater reductions in leakage episodes (urge and total) and in frequency were seen with ER oxybutynin compared with IR tolterodine after 12 weeks' treatment. No significant differences were identified between groups in adverse effects reported.[389,390] [EL = 1+]

Extended release oxybutynin versus extended release tolterodine

One DB RCT compared ER formulations of both tolterodine and oxybutynin in women with OAB, 47% of whom had previously received antimuscarinic treatment. No significant differences were found between ER tolterodine 4 mg o.d. and ER oxybutynin 10 mg o.d. in changes in leakage episodes (urge or total), while reductions in frequency were reported to be significantly greater with ER oxybutynin (mean reductions of 28% versus 25%) with 12 weeks' treatment. Dry mouth occurred in significantly more women in the oxybutynin group (30% versus 22%) (n = 790).[391–393] [EL = 1+]

Immediate release oxybutynin versus trospium

One DB RCT compared IR oxybutynin 5 mg b.d. with trospium 20 mg b.d. in men and women with urge syndrome (n = 357; 86% women). After 1 year, improvements in frequency, urgency and cystometric capacity were seen in both groups, with between-group analysis only reported for cystometric capacity. The incidence of dry mouth and gastrointestinal effects was significantly higher with oxybutynin (50% versus 33% and 51% versus 39%, respectively).[396] [EL = 1+]

Solifenacin versus extended release tolterodine

In men and women (n = 1200; 87% women) with OAB, solifenacin 5 to 10 mg (dose increased on patient request in 48%) was compared with ER tolterodine 4 mg daily in a 3 month study. The proportion of patients with UI was not reported. The aim of the study was to demonstrate non-inferiority of solifenacin to ER tolterodine in frequency of micturition, which was proven. The two drugs were not significantly different in terms of improvements in nocturia, but improvements in leakage and urgency episodes were significantly greater with solifenacin, as was the reduction in pad usage. The patients' perception of their bladder condition was also reportedly improved to a greater extent with solifenacin than with tolterodine. The adverse effects listed occurred with both drugs: dry mouth (30% solifenacin versus 24% tolterodine), constipation (6% versus 3%) and blurred vision (1% versus 2%). Discontinuation rates were 6% versus 7%.[397] [EL = 1+]

Different formulations of the same drug compared

Transdermal versus immediate release oral oxybutynin

Transdermal oxybutynin (2.6–5.2 mg) and IR oral oxybutynin (5 mg b.d. to 7.5 mg t.d.s.), were compared in a 6 week RCT in men and women (92% women) with DO, all of whom had urge UI and who were currently responding to oral oxybutynin (n = 76). No significant differences were identified in efficacy (leakage episodes, cure) between treatment groups. Significantly more patients reported dry mouth with oral oxybutynin (39% versus 82%).[398] [EL = 1+]

Extended versus immediate release oxybutynin

Four DB RCTs compared ER and IR oral oxybutynin formulations in men and women with urge UI,[399–402] (with frequency in two studies[399,401]). In three RCTs, the population had previously responded to oxybutynin or to other antimuscarinic treatment.[400–402] Treatment duration ranged from 4 to 6 weeks. Three of the studies allowed dose titration of oxybutynin; the daily doses taken were within 5–30 mg (ER) or 5–20 mg (IR formulation).[399,400,402] One study compared 10 mg given as a single ER daily dose or a twice daily dose of IR oxybutynin.[401] Each study included men and women (n range 105 to 226), with the majority in each study being female (68–92%).

In both 6 week studies, only adverse effects were reported for all patients; efficacy outcomes were only reported for those who completed treatment,[400] or who completed at least 2 weeks' treatment and followed the protocol.[399] [EL = 1−] The other two studies were of higher quality.[401,402] [EL = 1+] Two of the studies reported no significant differences in efficacy or adverse effects between ER and IR oxybutynin.[399,401] One study reported that the incidence of dry mouth was significantly lower with ER oxybutynin (68% versus 87%).[400] One found no significant differences between ER and IR oxybutynin

in incidence of dry mouth, although the cumulative rate of the first report of dry mouth, at a given dose, was significantly lower with ER oxybutynin.[402]

A case series evaluated treatment with ER oxybutynin 5–30 mg for 1 year in men and women with urge or mixed UI (n = 1067; 85% women). Overall, 46% continued treatment to 1 year; the main reasons for withdrawal were adverse effects (24%) and lack of efficacy (10%). Significant improvement was seen in impact on sleep and in the effects of leakage on lifestyle at 1 year (measured using the IIQ questionnaire).[403] [EL = 3]

Extended versus immediate release tolterodine

In one placebo-controlled DB RCT, the reduction in leakage episodes was significantly greater with ER tolterodine 4 mg o.d. compared with IR tolterodine 2 mg b.d. (median reductions 71% versus 60% at 12 weeks) in men and women with frequency and urge UI (n = 1529; 81% women). Dry mouth was reported by significantly fewer patients treated with ER than IR tolterodine (23% versus 30%, compared with 8% placebo).[367–373] [EL = 1+]

Economic evidence

From the health economics literature review, a total of seven articles were included as being relevant to the question of which is the most cost effective drug treatment for OAB. The design and the results of all included studies are presented in the evidence tables. All the studies included economic models, and the efficacy data used to populate these models was derived from a number of sources – trial data, literature review and expert opinion. All but two of the studies made some comparison between one or more of the formulations for oxybutynin and tolterodine. Two of the studies were based exclusively on a UK setting.[404,405] One other study also considered the UK context, in addition to France and Austria.[406]

In the studies that considered oxybutynin, the general conclusion was that ER oxybutynin was cost effective. Two studies reported that it dominated IR tolterodine, being at least as cheap and more efficacious.[404,407] In addition, a further two studies reported that ER oxybutynin dominated IR oxybutynin in addition to ER tolterodine.[406,408] One UK study noted that IR oxybutynin was cheaper than ER oxybutynin and all formulations of tolterodine.[405] It reported that IR oxybutynin and ER formulations of oxybutynin and tolterodine might all be considered cost effective contingent on the willingness of the NHS to pay for an additional incontinent-free week. However, it noted that IR tolterodine did not appear cost effective as it was more expensive but no more efficacious than ER formulations.

One Canadian study reported that tolterodine appeared cost effective in a population who had discontinued initial oxybutynin therapy.[409] The comparison was against no further treatment and they argued that the incremental cost effectiveness ratio (ICER) fell within cost effectiveness thresholds for willingness to pay. Finally, a Swedish study compared the cost effectiveness of tolterodine against no treatment.[410] They reported that the incremental cost per quality-adjusted life year (QALY) with tolterodine fell within the threshold generally accepted as cost effective.

Where treatments are of equivalent efficacy, the cheapest treatment will generally be the most cost effective. Since we did not find consistent evidence of greater efficacy of one antimuscarinic over another, a cost minimisation analysis has been adopted in this guideline. One possible criticism of such a cost minimisation approach is that it does not sufficiently take into account the differences between drugs and formulations in terms of their adverse effects and tolerability profile. While recognising a certain validity in this criticism, we believe that the cost minimisation approach was justified because of a lack of head-to-head trials, the difficulties of comparing across studies using different study designs, and evidence from actual practice showing low persistence with all antimuscarinic therapy.[403,412] Furthermore, good prescribing practice requires that patients be reviewed when starting on new pharmacological treatment and therefore the costs of switching from a poorly tolerated drug are, at least partly, subsumed within this review process. The costs (see Appendix E) were based on a typical dose, as determined by the GDG, taken for 12 months and using prices published in BNF 50. Based on this, non-proprietary oxybutynin is the most cost effective.

Evidence statements for antimuscarinic drugs

Treatment with darifenacin, oxybutynin, solifenacin, tolterodine and trospium in women with OAB is associated with improvements in frequency, leakage episodes and quality of life. [EL= 1+] There is no evidence of a clinically important difference in efficacy between antimuscarinic drugs. Based on the cost minimisation analysis undertaken, non-proprietary immediate release oxybutynin is the most cost effective antimuscarinic drug.

Propiverine may be associated with an improvement in frequency. [EL = 1+] There is limited evidence that doxepin reduces night-time leakage episodes and nocturia. [EL = 1+] There is no evidence of efficacy for the use of flavoxate, propantheline or imipramine for the treatment of UI or OAB. [EL = 4]

Antimuscarinic adverse effects are common with all antimuscarinic drugs, and dry mouth is more likely with oral IR oxybutynin than tolterodine, trospium, ER or transdermal oxybutynin, but skin reactions are very common with the latter. [EL = 1+] In view of the high incidence of adverse effects and the time to maximum benefit the GDG believes that early treatment review is good practice. [EL = 4]

Number	Recommendation
	Immediate release non-proprietary oxybutynin should be offered to women with OAB or mixed UI as first-line antimuscarinic drug treatment, if bladder training has been ineffective. If immediate release oxybutynin is not well tolerated, darifenacin, solifenacin, tolterodine, trospium or an extended release or transdermal formulation of oxybutynin should be considered as alternatives. Women should be counselled about the adverse effects of antimuscarinic drugs. **[2006]**
	An early treatment review should be undertaken following any change in antimuscarinic drug therapy. **[2006]**
	Propiverine should be considered as an option to treat frequency of urination in women with OAB, but is not recommended for the treatment of UI. **[2006]**
	Flavoxate, propantheline and imipramine should not be used for the treatment of UI or OAB in women. **[2006]**

Number	Research recommendation
	There is a need for a comparison of the clinical effectiveness and cost effectiveness of drug therapy compared with other conservative therapy as first-line treatment for women with OAB or mixed UI.

X.X Surgical management

When conservative treatment of UI, whether for stress UI or OAB symptoms, has failed it is usual to consider surgical therapy. The objective of all surgery for UI should be to restore the woman's lower urinary tract function as closely as possible to normal, with the minimum short- and long-term morbidity and for this improvement to be durable; indeed, this is the expectation of most patients. Such ideal outcomes are, however, unusual, and women should be given relevant information and realistic expectations about anticipated outcomes, including potential perioperative complications and long-term adverse effects. This is especially true of the operations for OAB, which comprise the first part of this chapter.

The range of procedures is wide but, in principle, all operations for UI aim either to reduce bladder filling pressures in the case of OAB symptoms or to augment urethral closure in the case of stress UI. The best chance of long-term success lies with the primary procedure and therefore this chapter should be read in conjunction with the chapter on surgical competence. Well over a hundred surgical procedures have been described to treat UI over the last century; this guideline addresses only those procedures that are currently in common clinical practice.

Studies considered for this section

Evidence described in this section is derived where possible from controlled trials. Where data were lacking, case series were considered. The procedures considered are not specific to women with idiopathic UI; the majority of evidence is in relation to treatment of neurogenic bladders. Interpretation and extraction of available data, relevant to the population within this guideline, is difficult owing to heterogeneity of populations included, both in terms of gender and aetiology of UI.

X.X Procedures for overactive bladder

Currently accepted practice is to offer lifestyle or behavioural modifications or antimuscarinic medications as initial treatments. Where these are unsuccessful, a range of surgical interventions may be considered. In contrast to procedures used for the treatment of stress UI (aimed at stabilising the bladder neck or urethra, or augmenting sphincter pressure), these procedures aim to increase the capacity of the bladder, alter or modulate its nerve supply and contractility, or to bypass the lower urinary tract completely. It is inherent in several of these procedures that contractility of the detrusor is reduced; hence difficulty voiding is a very common adverse effect. Women might only be considered suitable for such procedures if they are both willing and demonstrably able to undertake clean intermittent self-catheterisation (CISC).

X.X Botulinum toxin

Botulinum toxin is a potent neurotoxin derived from the bacterium *Clostridium botulinum*. Two strains are available for clinical use, types A and B. Botulinum toxin is known to block the release of acetylcholine and it will temporarily paralyse any muscle into which it is injected. However, the precise mechanism of action when injected into the detrusor muscle is unknown. It can be injected directly into the bladder wall and performed as a day case procedure using a flexible cystoscope . There are currently two preparations of botulinum toxin A available in the UK, BOTOX® (Allergan Ltd) and Dysport® (Ipsen Ltd). These have different formulations and molecular structures, and safety and efficacy may also not be the same for both products. All the evidence for botulinum toxin A in this guideline refers to BOTOX®

Number	Recommendation
	Bladder wall injection with botulinum toxin A should be used in the treatment of idiopathic detrusor overactivity only in women who have not responded to conservative treatments and who are willing and able to self-catheterise. Women should be informed about the lack of long-term data. There should be special arrangements for audit or research. The use of botulinum toxin A for this indication is outside the UK marketing authorisation for the product. Informed consent to treatment should be obtained and documented. Botulinum toxin B is not recommended for the treatment of women with idiopathic OAB.

Number	Research recommendation
	The place of botulinum toxin in the management of detrusor overactivity of idiopathic aetiology deserves further evaluation.

X.X Sacral nerve stimulation

The principle of neuromodulation is that appropriate electrical stimulation of the sacral reflex pathway will inhibit the reflex behaviour of the bladder. Permanently implantable sacral root stimulators have been developed to provide chronic stimulation directly to the S3 nerve roots. Patients first undergo a percutaneous nerve evaluation (PNE) in which a needle is inserted through the sacral foramina under local anaesthetic. This is connected to an external stimulation source and left in place for a few days. Those who show satisfactory response to the PNE may then proceed to a permanent implant.

Guidance on sacral nerve stimulation (SNS) for urge incontinence and urgency-frequency was issued by the Interventional Procedures Programme of NICE, in 2004.[26] It states that: 'Current evidence on the safety and efficacy of sacral nerve stimulation for urge incontinence and urgency frequency appears adequate to support the use of this procedure provided that the normal arrangements are in place for consent, audit and clinical governance.'

Recommendations

Number	Recommendation
	Sacral nerve stimulation is recommended for the treatment of UI due to detrusor overactivity in women who have not responded to conservative treatments. Women should be offered sacral nerve stimulation on the basis of their response to preliminary percutaneous nerve evaluation. Life-long follow-up is recommended.

Controlled trials comparing tension-free vaginal tape with colposuspension

Tension-free vaginal tape has been compared with open and laparoscopic colposuspension in eight RCTs.

X.X Vanilloid receptor agonists

Resiniferatoxin is a derivative of capsaicin (chilli pepper). Intravesical instillation of resiniferatoxin was considered in two case series of patients with OAB, one in women (n = 30)[550] and another in men and women (n = 41; 20 women).[551] The duration of follow-up is unclear in one study, making interpretation of the results presented difficult.[551] In the other study, in women refractory to antimuscarinic treatment, urgency and urge UI were significantly reduced 1 month after resiniferatoxin treatment. Adverse effects were not considered.[550] [EL = 3]

Collagen versus continence surgery

Collagen was compared with surgery (46% suspension procedure, 54% fascial sling) in women with stress or mixed UI, in one RCT. No differences in satisfaction or QOL (SF-36, IIQ) were seen between groups at 1 year. Using intention-to-treat analysis (where treatment was considered to have failed in women with missing data), there was no significant difference in continence rates at 1 year (52% collagen versus 55% surgery). If only the 89% of women who underwent the randomised intervention were considered, the continence rate with collagen was significantly lower (53% versus 72%). Adverse effects were significantly higher in the surgery group (urinary retention, transient voiding difficulty, UTI) (n = 133).[560] [EL = 1+]

Silicone versus porcine dermal collagen implant

One RCT compared silicone with porcine dermal collagen implant, with 6 months follow-up. No statistical analysis was reported for the outcomes evaluated (QOL, change in Stamey grade, cure or improvement on pad test); this, together with lack of definition of improvement on pad test, makes interpretation of the results difficult. Adverse events were not considered (n = 50).[556] [EL = 1−]

Carbon-coated zirconium beads versus collagen

Two RCTs compared carbon-coated zirconium beads with collagen in women with stress UI due to ISD in whom prior treatment had failed. Duration of follow-up was 14 months and 2.7 years. In both studies, fewer women were followed up than were randomised, with no explanation for the missing data. Neither study found significant differences between groups in continence outcomes (changes in Stamey grading, cure rates, 1 hour pad test results). Only one study[559] reported adverse effects; both urgency and acute retention occurred in significantly more women treated with carbon-coated zirconium beads (n = 52, n = 355).[558,559] [EL = 1−] A cohort study that compared the same interventions also found no differences between groups in outcomes (time to treatment failure and satisfaction) with minimum of 8 months follow-up (n = 86).[562] [EL = 2+]

Autologous fat versus placebo (saline) or collagen

One RCT compared periurethral injection of autologous fat with saline in women with stress UI. A course of three injections was given to all women in the control group and to 82% of women treated with autologous fat. The rate of cure or improvement was about 21% in both groups 3 months after

the final injection, with no significant change from baseline in UI score or in pad weight. Complications noted for all women were short-term urgency (very common [more than 10%]), and UTI and acute retention (common [1% or more]). One woman died from fat embolism (n = 68).[561] [EL = 1+]

A cohort study compared autologous fat with collagen in women who had failed prior continence surgery. At mean 7 months follow-up, the failure rate was significantly higher in women treated with autologous fat (57% versus 14%), and subjective improvement was lower. One woman treated with autologous fat had a subcutaneous abdominal wall haematoma. Other complications were not reported separately for the two treatment groups (n = 67).[563] [EL = 2+]

Case series of glutaraldehyde cross-linked collagen bulking agent

Sixteen case series of injectable collagen in women with stress UI were evaluated.[139,576–594] Patient numbers ranged from 28 to 337 (total 1573). Duration of follow-up ranged from a mean of 5 months to a maximum of 5 years, the majority having follow-up to 2 years. One publication was an analysis of results in women aged over 65 years, within a study population of broader age range.[581] Women in one study had failed conservative treatment:[579] in ten studies, between 9% and 100% (median 67%) of women had had prior continence surgery. A skin test to collagen was performed 2–4 weeks prior to injection therapy, in each study.

The number of treatments required to achieve initial benefit was reported in two ways: as mean or median number of injections (which ranged from 1.7 to 2.2), or as the proportion of women who had two or more injections (which ranged from 8% to 74%, median 50%).

Subjective and objective cure rates were reported across the studies, although the definitions varied, for example changes in Stamey grading or pad usage. Given the difference in definitions, the results were:

- subjective cure (11 studies): median 38% (range 7-49%)
- subjective improvement (ten studies): median 40% (range 20-65%)
- subjective cure and improvement combined (two studies): 47% and 74%
- objective cure (two studies): 48%.

Other outcomes assessed also indicated improvement (pad test[591] frequency and nocturia[589]). Continence rates reduced over the duration of follow-up.[139,578–580,584,585,594] Two studies considered time to treatment failure: one reported that this occurred at mean 13 months,[594] and another found that 50% were considered failures at 5 months.[590] The complications reported across the studies were:

- *de novo* DO, urgency or urge UI (four studies): median 21% (range 10-39%)
- retention (nine studies, transient in five): median 6% (range 0-23%)
- UTI (six studies): median 5% (range 0.5-26%)
- transient haematuria (four studies): median 2% (range 0.7-5%).

Other effects reported were abscess at injection site (1%),[579] transient flu-like symptoms (2%)[139,580] and cystitis (1%).[593]

Tension-free vaginal tape versus open colposuspension

Five RCTs studies compared TVT with open colposuspension in women undergoing primary surgery for urodynamic stress UI.[658–663] Overall, 627 women were randomised to either intervention. One study also evaluated an autologous fascial sling.[658] [EL = 1+] Duration of follow-up ranged from 1 to a maximum of 3 years and was mostly about 2 years, although one study only provided results at 3–6 months.[663] In the largest study, 8% of the women withdrew consent after randomisation. Further losses to follow-up occurred by the 2 year analysis.[659,660] [EL = 1++] A second study also lost 17% of the women from the colposuspension arm before the end of follow-up.[662] [EL = 1+] The other two studies did not use true randomisation[661] or did not describe randomisation or consider whether groups were balanced at baseline in key parameters.[663] [EL = 1−]

The study with 3–6 months follow-up reported that 72% were subjectively 'completely' cured at that time point.[663] Objective cure was reported in four studies; three defined this as less than 1g[659–661] or

2g[662] change in pad weight during a 1 hour pad test. The individual studies reported objective cure rates for TVT versus colposuspension of 81% versus 80%[659,660] and 84% versus 86%[661] at 2 years, with the third study reporting 82% versus 76% at median follow-up of 22 months.[662] The fourth study reported cure rates (negative stress test and symptom-free) of 87%, 88% and 93%, with TVT, open colposuspension and rectus fascial sling at 1 year. (n = 92).[658] While none of the trials identified significant differences in cure rates with TVT and colposuspension when women with complete data were analysed at follow-up, the impact of losses to follow-up were considered in the largest study. Assuming that all losses were failures or with the last observation carried forward (LOCF), the cure rate would be significantly higher with TVT. If all losses were assumed to be cured, or both presurgery withdrawals cured and LOCF used for post-surgery withdrawals, there would be no significant difference between the interventions. In these analyses, the best and worst case cure rates were 63–85% with TVT, and 51–87% for colposuspension.[659,660] [EL = 1++]

Other outcomes evaluated were QOL[659,660] satisfaction,[659,660] and subjective success.[662] Significant improvements in two-thirds of questions on the BFLUTS questionnaire were seen in both groups, and similar proportions were satisfied with treatment (85% TVT versus 82% colposuspension). The subjective cure or improvement rates were 92% versus 93%.

Complications were reported in the four studies, although one only noted that there were no 'significant' complications.[662] Bladder injury or perforation1 was common with TVT, and noted to be significantly higher than with colposuspension in one study.[659] No other significant differences in complications were reported (*de novo* DO, wound infection, fever, sensory urgency). Complications reported with TVT were vaginal perforation, retropubic haematoma, vascular injury and tape erosion, and in the colposuspension arm were incisional hernia, haematoma, retention and pain at incision site.

During the 2 year follow-up period of the largest study, significantly more women in the colposuspension group required surgery for uterovaginal prolapse (5% versus 0%).[659] No other significant differences were identified in further procedures required (surgery for stress UI, cystoscopy, hysterectomy, urethral dilatation). Division or trimming of the tape was undertaken in 2% of the TVT group, and incisional hernia repair in 3% of the colposuspension group.[660]

Time to return to work[659,660] and to normal activities[659–661] was significantly longer with colposuspension, as were hospital stay, operating time and duration of catheterisation.[659–661,665]

Tension-free vaginal tape versus laparoscopic colposuspension

Three studies compared TVT with laparoscopic colposuspension in women with stress UI.[664–667] Prior continence surgery was an exclusion criterion in two studies (except colporrhaphy in one); the third reported that 17% in the TVT group had had prior continence surgery.[667] The numbers of women randomised were 46, 72 and 128. Duration of follow-up in two studies was 1 year, and a mean of 11 months in the third. In two studies, one or more women withdrew after randomisation (1% and 5%),[664–666] and only 88% of those treated in one study were followed up to 1 year.[666] [EL = 1+] The third study had sparse methodological data, and had different mean duration of follow-up in groups that was not adjusted for in the analysis of results.[667] [EL = 1−]

Objective cure at 1 year was reported in two studies, the third reporting combined subjective and objective cure. Within one study, the significance of the results depended on the definition of cure, with cure in significantly more women in the TVT group assessed by a stress test (86% versus 57%), but not with a 48 hour pad test (73% versus 59%).[664] Severity scores, and KHQ scores were significantly lower with TVT at 1 year, and satisfaction higher. In the second study, objective cure rates (urodynamics) were 97% versus 81% in the TVT and colposuspension groups at mean follow-up of 21 months. No significant differences were found in QOL (UDI, IIQ), leakage episodes or satisfaction at 1 or 2 years. The majority of women in the study underwent another gynaecological procedure at the same time as continence surgery.[666] In the third study, 83% of women in both groups

1 Bladder injury during a TVT procedure is a relatively minor complication resulting from bladder perforation by the introducing needle, and can be identified by a cystoscope used during the procedure. Although practices vary considerably, it has been managed by bladder drainage for periods of 12–48 hours and no long-term sequelae have been reported. Bladder injury during colposuspension requires formal closure and drainage for up to 5 days.

were cured at mean follow-up of 11 or 13 months (minimum 3 months). Intra- or postoperative complications that were common in both groups across the studies were bladder perforation, prolonged retention, wound infection, UTI, haematoma and pelvic abscess.[665,666] In two studies, 9% of the women required conversion from laparoscopic to open colposuspension.[666,667] Other complications were *de novo* DO,[667] vaginal erosion of mesh,[666] transection for voiding666 and urge symptoms[665] with TVT, and port-site infection,[665] postoperative ileus, pulmonary embolism and pyelonephritis with laparoscopic colposuspension.[666]

Hospital stay, duration of catheterisation and operating time were significantly shorter with TVT than with laparoscopic colposuspension.[665–667]

Tension-free vaginal tape versus autologous fascial sling

Two small RCTs compared TVT with an autologous rectus fascial sling, one of which also had a colposuspension arm (total n = 145). In the study with three arms, cure rates (negative stress test and symptom-free) were 87%, 88% and 93%, with TVT, open colposuspension and rectus fascial sling, respectively, at 1 year (n = 92).[658] [EL = 1+] The second study reported cure rates (using the same criteria) of 92% in both groups at 6 months. Complications reported were *de novo* DO (0% with TVT versus 0% or 4% with rectus fascial sling), wound pain (7% versus 28%) and urinary retention (13% versus 7%).[658,717] [EL = 1+]

Comparison of different surgical techniques for tension-free vaginal tape

Results for the caudocranial (bottom-up) and craniocaudal (top-down) approach to TVT were compared in a retrospective review of women with stress UI who had undergone either procedure. No significant differences in subjective continence status, operating time or hospital stay were identified between groups. Bladder and vaginal perforation rate appeared to be higher (2% versus 7% and 0% versus 4%, respectively) with the craniocaudal approach (n = 90).[718] [EL = 2−]

Controlled trials comparing TVT and synthetic slings

Most synthetic slings available are made of polypropylene but they differ in the composition of the sling mesh and in the way by which they are inserted. Tension-free vaginal tape and suprapubic arc sling (SPARC) are made of monofilament threads, and the intravaginal slingplasty (IVS) of multifilament polypropylene threads. The slings are introduced via retropubic (TVT, IVS, SPARC), or transobturator (transobturator tape [TOT]) approaches. Prior to the TVT procedure being introduced, other synthetic materials had been used (PTFE, silicone, polyester and self-fashioned polypropylene).

TVT has been compared with porcine dermal collagen sling, TOT, SPARC, IVS and polypropylene mesh in studies of varying design and quality.

Tension-free vaginal tape versus transobturator tape

One RCT with 12 months follow-up found no significant differences in objective or subjective cure rates between the TVT and TVT-O (tension-free vaginal tape obturator) procedures (n = 89). Duration of hospital stay was similar following both procedures, although duration of the transobturator procedure was significantly shorter (17 versus 27 minutes). *De novo* instability or urgency, UTI and urinary retention were common in both groups, and bladder perforation occurred in 7% of the TVT group compared with none in the TVT-O group.[721] [EL = 1+]

The outcomes of TVT and TOT were also compared in two cohort studies, which were both retrospective analyses of cases (n = 633). [EL = 2−] No significant differences in cure, improvement or satisfaction rates between the interventions were identified. The duration of follow-up was longer with TVT (mean 19 versus 13 months; 75% followed up by telephone) in one study,[722] and about 1 year in the second.[723] Complications common in both groups were haemorrhage[722] and persisting or *de novo* urgency.[722,723] Other complications with TVT were bladder or vaginal perforation (14%) and haematoma (2%), and in the TOT group were bladder perforation (0.5%), vaginal erosion (1%), urethral perforation (1%) and difficulty with needle passage (1%).[722,723] Data for the TOT group in one study were stated to reflect the learning curve of the surgeon.[722] [EL = 2−]

Tension-free vaginal tape versus intravaginal slingplasty or suprapubic arc sling

Two RCTs compared TVT with intravaginal slingplasty (IVS), one of which also evaluated the suprapubic arc sling (SPARC), in women with urodynamic stress UI, a minority of whom had had prior continence surgery.[724,725] One specifically included women who had failed conservative treatment or

required prophylactic continence surgery during prolapse repair for occult stress UI (no symptoms, but stress UI found on urodynamics); follow-up in this study was for 3 months only.[725] The other study had longer follow-up (median 13 months) but was a quasi-RCT.[724] [EL = 1−] Neither study found statistically significant differences between groups in cure or improvement rates (objective and/or subjective). One study evaluated satisfaction, which was similar across groups. Other than retention, which occurred in more TVT-treated women,[724] no other significant differences in complications were identified between TVT and IVS (n = 195; 93% analysed).[725] [EL = 1+] Other complications, with both TVT and IVS, were bladder perforation, haemorrhage and *de novo* urgency.[724,725]

In addition to the RCT mentioned above, two further RCTs compared TVT with SPARC in women with urodynamic stress UI, with or without POP (n = 84, n = 62).[726,727] Minimum duration of follow-up was 1 year,[726] and the median was 25 months.[727] Neither study reported significant differences in objective cures rates (pad testing), which ranged from 81% to 95%. Quality of life scores (IIQ) in the single study that evaluated this were similar.[726] Sling protrusion occurred in significantly more women in the SPARC group compared with TVT or IVS (13% versus 3% versus 2%).[725] No other significant differences were seen between TVT and SPARC in complications reported (bladder perforation, retention, voiding difficulties, tape release/erosion/rejection, haematoma, defective vaginal wound healing, protrusion of tape edge),[726,727] even though the bladder injury incidence was 13% with SPARC in one study, compared with no cases with TVT. However, the surgeon who performed all procedures had 700 case experience with TVT compared with none for SPARC.[727]

A survey of members of the Urological Society of Australasia reported the incidence of urethral and vaginal erosions following use of polypropylene slings (TVT, SPARC, IVS or other synthetic material) and the management of these complications. The questionnaire response rate was 61% (n = 198); 39% of respondents performed sling procedures which were TVT and SPARC (993 versus 466 cases). Vaginal erosions were reported for 1.2% of women treated, the majority presenting within 3 months. Removal of part of, or the entire sling, was undertaken in all cases. Urethral erosion was reported for 0.6%, the majority within 3 months, with one-third of cases presenting after 1 year. Half were treated conservatively, and removal of part of the sling was required in the other half. Urinary retention was reported for 6.5%, two-thirds of which required intermittent or indwelling catheterisation, and the remaining one-third required corrective surgery.[728] [EL = 3]

Tension-free vaginal tape versus polypropylene mesh sling

A cohort study compared the outcomes of TVT (n = 23) and a polypropylene mesh sling (n = 57) in women with stress UI, at mean of 23 or 20 months follow-up. No significant differences were found between groups in cure (negative cough stress test and no reports of leakage), improvement, or in QOL (IIQ-7, UDI-6), although preoperative UDI-6 scores were significantly different between groups. Transient urinary retention, and voiding difficulty was reported in both groups, *de novo* DO, dyspareunia and vaginal or suprapubic pain in the polypropylene mesh group, and bladder perforation with TVT (n = 80).[729] [EL = 2−]

Case series of tension-free vaginal tape

Over 100 case series reporting the outcomes of TVT in women with stress UI were identified, some of which represent multiple reports from the same institutions or by the same authors. Within these multiple reports it is not always possible to determine whether some or all of the same patients are included in these studies, and thus duplication of some data cannot be ruled out. Data were extracted from 83 studies involving over 15 000 women, about 30% of whom were included in the national registries of Austria and Finland, which gathered data on complications. Two-thirds of the studies had mean, median or fixed follow-up of up to 2 years, the longest duration of follow-up being about 8 years.

Women with stress UI were included in all studies, with 23 including those with mixed UI, the proportion varying from 5% to 79% (median 25%). Overall, 70% of the studies included women with urodynamic findings of stress (or mixed) UI. In the majority of studies, a proportion of women had undergone prior continence surgery. Two studies only included women who had failed prior continence surgery.[730,731] Four studies either stated that none of the women had had prior continence surgery or excluded such women.[732–735] Concomitant pelvic surgery such as prolapse repair or hysterectomy was undertaken in combination with TVT, in varying proportions of women, in most studies. In three studies, the TVT procedures were undertaken with other pelvic surgery in all women enrolled.[736–738] Another three studies specifically stated that no other procedure was undertaken concomitantly.[136–138,739,740]

The quality of reporting in these studies varied. Although similar outcomes were reported across the studies, the definitions and terminology for cure, improvement and failure varied. The duration of follow-up was not always clearly stated, with most studies reporting mean or median follow-up durations. Drop-out rates were high in some studies.

The outcomes considered in most studies were continence status and/or complications. A minority reported other outcomes, predominantly satisfaction and QOL. Some studies had specific objectives, for example to consider predictors of urinary retention or of voiding function,[741,742] haemorrhagic complications,[743] bladder perforation,[744] sexual function,[745,746] or outcomes in subgroups (those with recurrent stress UI, with ISD, or with mixed UI).[747–749] Twenty studies (n = 3621) had follow-up to less than 1 year (range 6 weeks to 10 months),[136–138,739–741,746,750–764] six of which did not report continence status.[741,753,756,760,762,763] Thirty-nine case series (n = 4017) reported follow-up of between 1 and 2 years;[730,731,733,735–738,743,765–795] other than four studies,[743,770,774,784] all reported continence status. Eleven studies (n = 2173) had follow-up of between 2 and 3 years.[732,742,744,796–806] The two largest studies, accounting for 61% of patients, only considered complications,[744,804] and another only considered voiding function.[742] Nine series reported outcomes with at least 3 years follow-up, up to about 8 years.[734,745,747–749,807–812] Apart from one, which only considered sexual function, the other studies considered continence status and complications.

The findings of these studies, other than complications, are summarised in Table 7.1. In one study that considered whether cure rates declined with time, the rates were 85% and 81% at 5 and 7 years (69% follow-up) compared with 91% at 1 year.[735,810,811] In the 16% of women in one study who had mixed UI symptoms, there was a statistically significant reduction in cure rate from 60% at 3 years to 30% at 6–8 years.[812] [EL = 3]

Complications

Across the case series, most complications reported were intra-operative and thus results of all case series are considered together rather than by duration of follow-up.

The following intra-operative complications were reported:

- bladder perforations (63 studies): median 4% (range 0-23%, IQR 3-7%)
- haematoma (32 studies): median 1.5% (range 0-10%)
- haemorrhage (21 studies): median 1.2% (range 0-4%)
- urethral perforation (seven studies): median 0.5% (range 0-2%)
- nerve injury (four studies): median 0.7% (range 0-1.6%).

Postoperative complications reported across the case series were:

- voiding problems/urinary retention (53 studies): median 11% (range 1.6-60%, IQR 5-17%)
- de novo urgency, urge UI or DO (40 studies): median 6% (range 0-26%)
- UTI (31 studies): median 7% (range 0-19%)
- healing problems/wound infection (25 studies): median 0% (range 0-2%)
- tape rejection (25 studies): median 0% (range 0-3%)
- tape trimmed or removed (18 studies): 1.2% (range 0-8%)
- tape erosion (16 studies, 11 with up to 2 years follow-up): median 1.1% (range 0-6%)
- voiding difficulty described as long-term or requiring intermittent self-catheterisation (eight studies): median 1.8% (range 0-5%)
- pain relating to surgery, such as inguinal, loin or suprapubic (six studies): median 3.4% (range 0-12%)
- cystitis (five studies): median 11% (range 2-25%).

Asymptomatic POP was reported in 8% of women in one of the studies with longest follow-up (mean 7 years).811

Table 7.1 Outcomes of TVT case series by duration of follow-up

Outcomes	Duration of follow-up, number of studies and patients			
	Up to 1 year (range 6 weeks to 10 months) 20 studies 3621 women	**1–2 years 39 studies 4017 women**	**2–3 years 11 studies 2173 women**	**More than 3 years (up to mean of 8 years) 9 studies 1504 women**
Subjective cure	10 studies: median 88% (range 76–97%, IQR 87–89%)	18 studies: median 87% (range 59–95%, IQR 83–91.5%)	6 studies: median 80% (range 67–90%)	2 studies:[a] 79% and 90%, 2 studies 7/8 year follow-up: 80% and 90%
Objective cure	1 study: 87%	14 studies: median 87% (range 42–95%, IQR 83–91.5%	4 studies: median 90% (range 83–91%)	3 studies: range 81–95%
Cure that included Subjective and objective elements	2 studies: 91% and 93%	8 studies: median 87% (range 81–94%, IQR 83.5–91%)	2 studies: 83% and 91%	4 studies: median 85% (range 81–90%)
Satisfaction	3 studies: median 87% (range 85%–91%)	8 studies: median 80% (range 72–96%, IQR 76–93%)	2 studies: 82% and 88%	1 study: 95%
Quality of life	3 studies: improvements in KHQ (2 studies) and IIQ and UDI (1 study)	3 studies: improvements in UDI and IIQ in each study (UDI-6 and IIQ-7 used in 2 studies)	2 studies: improvements in IIQ-7 and UDI-6	Not evaluated
Other outcomes	2 studies: sexual function of 58% returned to normal after TVT; 15% reported dyspareunia; 5% loss of libido. 34% improved sexual function, 62% unchanged, 4% worse; coital UI cured in 87%[b]	None reported	None reported	1 study: improvement in sexual function reported in 50% of women who no longer had UI during intercourse (n = 19); reduced libido was common

a - the largest study (n = 256) only had data for about one-quarter of patients at 2 years, and 6% at 3 years[807]

b - of those who reported the symptom at baseline

IQR = interquartile range

National registry data

Two national registries (Austria and Finland) provide data on intra- and postoperative complications related to TVT; these gave a similar profile of complications to those listed above (n = 4250). Complications were: bladder injuries (~3–4%); bleeding, haematoma (each 2%); vesicovaginal fistula, thrombosis, seroma formation around tape, injury to epigastric vessel, injury to obturator nerve,

vaginal haematoma, urethral lesion (each 0.07%); urinary retention (2%); UTI (4% and 17%); surgery (mainly for tape loosening/division/removal) (~3%); and *de novo* urgency (0.3%).[813–816] [EL = 3]

Survey of surgeons

In a survey of UK surgeons who performed TVT procedures (n = 7336) in the UK in 2001, 44% reported that they had had cases of bladder perforations, 37% cases of *de novo* DO and 28% cases of voiding difficulties persisting for more than 6 weeks. Tape erosion was uncommon (reported by 0.3%).[817] [EL = 3]

Studies considering TVT in specific patient groups

A few cohort studies evaluated whether TVT outcomes differed in women of different age, BMI, or in those undergoing concomitant surgical procedures, without attempting to address potential confounding factors. In addition, some case series attempted to determine whether certain preoperative urinary factors such as urgency or prior continence surgery, or demographic factors such as age or weight, predicted or affected outcome. [EL = 3]

The cohort studies found no consistent differences between older women (aged 65 or 70 years or older) and younger women in continence outcomes or complications with TVT.[818–820] [EL = 2−] Three of four case series studies reported no association between age or menopausal status and successful continence outcome;[732,761,787] the fourth study reported lower cure rates for women aged over 55 years.[785] Others reported fewer postoperative complications in pre- versus postmenopausal women,[804] or that increasing age was associated with greater delay in resuming voiding.[741] [EL = 2−]

In cohort or case–control studies that compared outcomes according to BMI, one reported that significantly more women with a BMI greater than 30 had postoperative urge UI, although more women in this group had urgency preoperatively; no other differences between groups in continence status or complications were reported.[821] Another found no differences in cure rates, but all cases of bladder perforation occurred in women with lower BMI, though this may have reflected the surgeon's learning curve for the procedure.[822] [EL = 2−] Two case series studies reported conflicting findings regarding cure rates and BMI,[752,799] as did two case series that considered postoperative complications in these subgroups.[741,769] [EL = 3]

In two cohort studies and one case series with follow-up to 3 years, concomitant surgery did not appear to affect TVT cure rate.[769,823,824] Fewer women undergoing the TVT procedure alone had retention, bladder injury or infections.[823,824] Another reported that concomitant vault suspension surgery was associated with postoperative voiding dysfunction.[758] Two case series reported no association between concomitant surgery and intra-operative complications[804] or prolonged voiding problems.[741] [EL = 3]

Seven studies reported continence outcomes for women who had preoperative mixed UI (range 8–36% [median 21%], observed on urodynamics in five of the seven studies). The cure rates for mixed UI were lower than for pure stress UI in five of six studies.[765,766,769,788,800,812] The risk of TVT failure was higher in women with mixed UI in one study, although the confidence intervals were wide.[138] [EL = 3]

Women undergoing primary stress UI surgery were more likely to be cured than those who had had prior surgery in one case series,[799] while another reported no significant difference in subjective cure rates between these groups.[751] Four reported a higher risk of complications (bladder injury, voiding dysfunction, or intra-operative complications) in women who had had prior surgery (hysterectomy, prolapse or continence),[759,760,800,804] while three others did not find an association between prior surgery and postoperative complications or specifically voiding dysfunction.[751,761,769]

A further four studies considered whether urinary flow rate,[758] maximum urethral closure pressure[138] or urethral hypermobility[740,825] predicted outcome and reported that voiding dysfunction was more likely in women with a maximum flow rate of less than 15 ml/second, that the procedure was more likely to fail in women with MUCP less than 20 cmH_2O, and that the results for women with or without hypermobility were similar. [EL = 3]

Suprapubic arc sling (SPARC)

As well as the three RCTs comparing SPARC with TVT,[725–727] and a survey of complications,[728] three case series of the suprapubic arc sling were also identified.[826–828] One provided no information on the patients, nor details of the procedure (n = 140).[827] The second reported objective and subjective cure

rates of 90% and 69%, respectively.[826] The third series focused on QOL, but only reported mean scores from 46% of the women treated.[828] Two studies reported complications: bladder injury (4–7%), transient UTI (9%), retention requiring sling release (3–4%), voiding difficulties (11%) and *de novo* urge symptoms (6–12%).[826,828] [EL = 3]

Intravaginal slingplasty sling (IVS)

Other than the RCTs comparing IVS with TVT,[724,725] four case series of IVS were identified.[829–832] [EL = 3] Only one series considered cure rate, which was 86% at median 18 months follow-up (n = 49).[830] Complications noted in this series were haematoma (2%), temporary ISC (18%) and voiding difficulties (10%). The other case series reported specific complications, as follows:

- 7% sling infection, requiring sling removal in ten of the 11 cases; women presented at median 9 months (range 4-17 months) with either vaginal discharge or vaginal/abdominal fistula (n = 149)[829]
- 19 cases requiring sling removal owing to retropubic abscess, vesico-vaginal fistula, voiding difficulties, pain syndrome or mesh infection831
- 17% vaginal mesh extrusion, presenting at mean 9 months (n = 35).[832]

Self-anchoring polypropylene mesh

One case series reported the outcomes of a self-anchoring polypropylene mesh sling (Safyre™) inserted retropubically in women with stress UI, of whom 60% had had prior continence surgery. At mean follow-up of 18 months, the subjective cure rate was 92% and improvement 2%. Transient *de novo* urgency was very common (21%). Bladder perforation, retention requiring loosening of sling tension, and vaginal erosion of tape all occurred in between 2–5% of the women (n = 126).[833] [EL = 3]

The same authors also retrospectively compared outcomes when the sling had been inserted vaginally, through the retropubic space or through the obturator foramen. Duration of follow-up was a mean of 18 and 14 months, respectively. Subjective cure rates were similar (92–94%) but complications higher with the transvaginal route: bladder injury 10% versus 0%, transient voiding symptoms 21% versus 10%, and sling infection 3% versus 1% (n = 226).[834] [EL = 2−]

Transobturator tape (TOT)

Other than the cohort studies that compared a TOT procedure with TVT,[722,723] ten case series reported outcomes of the TOT procedure (total n = 504).[835–844] One of these considered the inside-out technique for passage of the tape.[835] The mean/median follow-up period ranged from 7 weeks to 17 months. Cure rates ranged from 55% to 92% (median 81%), and improvement from 5% to 15%. Complications reported across the studies describing the 'outside-in' technique were:

- bladder perforation (eight studies): median 0.5% (range 0-1%)
- de novo urgency (six studies): median 4% (range 1.6-14%)
- urethral perforation (five studies): median 1% (range 0-2.5%)
- voiding difficulty or retention (five studies): median 2.1% (range 1-16%)
- vaginal erosion (five studies); median 2.5% (range 0-14%)
- vaginal perforation (four studies): median 0.7% (0.3-2%).

Other complications reported in fewer studies included haemorrhage, haematoma and dyspareunia (all uncommon), and dysuria and UTI (both common).

The study that focused on vaginal erosion following TOT insertion (incidence 14%) reported that women presented with persistent vaginal discharge a mean of 9 months (range 2–19 months) after the procedure. Tape removal or trimming was required in all cases (n = 65).[845] [EL = 3]

The case series in which the transobturator inside-out technique was described reported complications. Immediately postoperatively, 16% experienced pain or discomfort in thigh folds, and at 1 month, vaginal erosion and complete urinary retention occurred in 1% and 3%, respectively (n = 107).[835] [EL = 3]

A cohort study compared the outside-in and inside-out approach to inserting a transobturator sling. No significant differences were found in objective cure or satisfaction rates or in complications at 12 months (n = 100).[846] [EL = 2+]

Additionally, one RCT compared a retropubic sling with the transobturator route of inserting a similar sling. Subjective cure rates were 93% in both groups and changes in QOL (UDI and IIQ) were also similar at 1 month. Bladder injury during the procedures was significantly higher with retropubic insertion (10% versus 0%), and vaginal injury higher with transobturator insertion (0% versus 11%) (n = 88).[847] [EL = 1+]

Comparative complication rates with retropubic and transobturator slings

Data from all studies that reported bladder injury, urethral injury or voiding difficulties with retropubic slings (TVT, IVS, SPARC, Safyre™) were pooled and the incidence compared with pooled data from studies evaluating transobturator slings. While bladder and urethral injury are consistently defined across the studies, the definition of voiding difficulties varied, with some including transient voiding problems. Allowing for these factors, the RR of each complication with retropubic compared with transobturator slings were as follows:

- bladder injury: RR 6.29 (95% CI 3.78 to 10.45)
- urethral injury: RR 0.30 (95% CI 0.12 to 0.77)
- voiding difficulties: RR 2.71 (95% CI 1.97 to 3.73).

These show that the risk of bladder injury and voiding difficulties is significantly higher with retropubic compared with transobturator slings, and that the risk of urethral injury is significantly lower with retropubic slings. When comparing TVT alone with the TOT procedure, the same pattern is seen:

- bladder injury: RR 6.14 (95% CI 3.69 to 10.22)
- urethral injury: RR 0.23 (95% CI 0.08 to 0.62)
- voiding difficulties: RR 2.83 (95% CI 2.05 to 3.89).

The findings should be viewed with caution because most of the data used in the pooling are derived from indirect comparisons of the interventions.

Other slings made of polypropylene (self-fashioned, Prolene® or Marlex®)

A polypropylene sling was compared with rectus fascial sling in a quasi-RCT, and with TVT in a cohort study. At median follow-up of about 2 years, cure and satisfaction rates were similar between fascial and polypropylene slings, but operating time and hospital stay were significantly shorter in the polypropylene group. Delayed voiding occurred in more women in the fascial sling group. There were no other significant differences between groups in complications reported (haematoma, dysuria, *de novo* urgency or urge UI) (n = 50).[848] [EL = 1−] The cohort study also found no difference in continence outcomes between groups at 20–23 months (n = 80).[729] [EL = 2−]

Eight case series describing the use of polypropylene mesh (not TVT) were identified that used a self-fashioned sling or a proprietary product (total n = 900; range 21–301).[849–856] Two of these described the use of a prosthesis that allows sling adjustment postoperatively (n = 50).[855,856] In six studies, between 10% and 62% had mixed UI.[849,850,852,853,855,856] Women in six studies had had prior continence surgery (11–62%),[849,851–855] and varying numbers of women across seven studies underwent concomitant surgery (8–100%).[849,850,852–856]

Duration of follow-up varied widely (1 month to 8 years), with six studies reporting mean/median follow-up of between 1 and 2 years. The outcomes reported were:

- subjective cure rates: 69–99% (median 77%)[849,850,852,854,856]
- objective cure rates: 62–96% (median 92%)[851,854,855]
- combined subjective and objective cure (no symptoms and negative stress test) rate: 87%[853]
- satisfaction rates: 77% and 91%.[852,855]

Five year follow-up of 23% of women from one case series has been published, at which 72% were cured. There were no cases of sling removal and 7% had *de novo* urgency.[857] [EL = 3]

Intra-operative complications were:

- haemorrhage requiring blood transfusion in 1%, 3% and 31%[849,851,856]
- haematoma: median 5% (range 0.7–10%)[849,852,853,856]
- bladder perforation/injury: median 0.4% (range 0–1%)[849,851,853,856]
- urethral perforation: median 0.3% (range 0–0.5%).[851,853,856]

No intra-operative complications were seen in one study.[855]

Postoperative complications were:

- UTI: median 6% (range 3–20%)[849,851,853,856]
- *de novo* DO: median 9% (range 5–16%)[849,851,853–855]
- urgency: median 19% (range 14–46%)[851,852,856]
- urinary retention was described in all studies, although the method of reporting varied; ISC was required for up to 3–6 months (four studies);[849,850,852,854] 3% from one study were using ISC at 1 year;[849] a further two studies reported that sling release (4%)851 or postoperative immediate adjustment (using the attached prosthesis, 48%) was required for retention[855]
- prolapse developed in 0.3–12% (median 3%)[849,850,852,854]
- mesh exposure or vaginal erosion requiring removal of the tape: median 3% (range.3–8%)[849,852–854]
- no cases of mesh rejection in one study,[853] and no cases of urethral erosion in another.[854]

Complications relating to the surgical incision (all common) were:

- persistent abdominal or vaginal wall sinus[849,850]
- non-healing of vaginal wall (requiring sling excision)[850]
- wound infection[850,851,853]
- suprapubic pain or vaginal pain.[852,854]

Seroma was reported in 14% of women in one study.[856]

Uncommon complications (0.1% or more and less than 1%) were deep vein thrombosis,[849] osteomyelitis (resolved),[849] osteitis pubis (suprapubic sutures cut and removed),[849] small bowel obstruction and urinary obstruction.[854]

Appendix L Proposed changes to original recommendations

Recommendation	Replaced with	Reason for change/deletion
Routine digital assessment of pelvic floor muscle contraction should be undertaken before the use of supervised pelvic floor muscle training for the treatment of UI. **[2006]**	Undertake routine digital assessment to confirm pelvic floor muscle contraction before the use of supervised pelvic floor muscle training for the treatment of UI. **[2006, amended 2013]**	Updated to improve clarity and implementation
The use of multichannel cystometry, ambulatory urodynamics or videourodynamics is not recommended before starting conservative treatment. **[2006]**	Do not perform multi-channel cystometry, ambulatory urodynamics or videourodynamics before starting conservative management. **[2006, amended 2013]**	The urodynamic recommendations have been updated and reordered to improve clarity and implementation
Multichannel filling and voiding cystometry is recommended in women before surgery for UI if: • there is clinical suspicion of detrusor overactivity, or • there has been previous surgery for stress incontinence or anterior compartment prolapse,or • there are symptoms suggestive of voiding dysfunction. Ambulatory urodynamics or videourodynamics may also be considered in these circumstances.	After undertaking a detailed clinical history and examination, perform multi-channel filling and voiding cystometry before surgery in women who have: • symptoms of OAB leading to a clinical suspicion of detrusor overactivity, **or** • symptoms suggestive of voiding dysfunction **or** anterior compartment prolapse, **or** • had previous surgery for stress incontinence. **[2006, amended 2013]**	The urodynamic recommendations have been updated and reordered to improve clarity and implementation
For the small group of women with a clearly defined clinical diagnosis of pure stress UI, the use of multichannel cystometry is not routinely recommended. **[2006]**	Do not perform multi-channel filling and voiding cystometry in the small group of women where pure SUI is diagnosed based on a detailed clinical history and examination. **[2006, amended 2013]**	The urodynamic recommendations have been updated and reordered to improve clarity and implementation
In women with UI who also have cognitive impairment, prompted and timed voiding toileting	No recommendation	Recommendation removed as this population is now within the remit of another

Recommendation	Replaced with	Reason for change/deletion
programmes are recommended as strategies for reducing leakage episodes. **[2006]**		guideline
Immediate release non-proprietary oxybutynin should be offered to women with OAB or mixed UI as first-line antimuscarinic drug treatment, if bladder training has been ineffective. If immediate release oxybutynin is not well tolerated, darifenacin, solifenacin, tolterodine, trospium or an extended release or transdermal formulation of oxybutynin should be considered as alternatives. Women should be counselled about the adverse effects of antimuscarinic drugs. **[2006]**	Offer one of the following choices first to women with OAB or mixed UI: • oxybutynin (immediate release), or • tolterodine (immediate release), or • darifenacin (once daily preparation). **[new 2013]**	Follow the network meta-analysis the recommendation for first line OAB drug treatment have been updated to reflect the current evidence.
An early treatment review should be undertaken following any change in antimuscarinic drug therapy. **[2006]**	Offer a face-to-face or telephone review 4 weeks after the start of each new OAB drug treatment. Ask the woman if she is satisfied with the therapy: • If improvement is optimal, continue treatment. • If there is no or suboptimal improvement or intolerable adverse effects change the dose, or try an alternative OAB drug (see recommendations 59 – 60), and review again 4 weeks later. **[new 2013]**	The GDG recommended a more structured review schedule to improve care for women under treatment
Propiverine should be considered as an option to treat frequency of urination in women with OAB, but is not recommended for the treatment of UI. **[2006]**	If the first treatment for OAB or mixed UI is not effective or well-tolerated, offer another drug with the lowest acquisition cost.[2] **[new 2013]**	Follow the network meta-analysis the recommendation for first line and second-line options for OAB drug treatment have been updated to reflect the current evidence.
Bladder wall injection with botulinum toxin A should be used in the treatment of idiopathic detrusor overactivity only in women who have not responded to conservative treatments and who	Discuss the risks and benefits of treatment with botulinum toxin A with women before seeking informed consent, covering: • the likelihood of being	Following the review of BoNT-A, the recommendation was updated to suit current and recommended practice

[2] This could be any drug with the lowest acquisition cost from any of the drugs reviewed, including an untried drug from recommendation 58. The evidence review considered the following drugs: darifenacin, fesoterodine, oxybutynin (immediate release), oxybutynin (extended release), oxybutynin (transdermal), oxybutynin (topical gel), propiverine, propiverine (extended release), solifenacin, tolterodine (immediate release), tolterodine (extended release), trospium and trospium (extended release). See chapter 6.

Recommendation	Replaced with	Reason for change/deletion
are willing and able to self-catheterise. Women should be informed about the lack of long-term data. There should be special arrangements for audit or research. The use of botulinum toxin A for this indication is outside the UK marketing authorisation for the product. Informed consent to treatment should be obtained and documented. **[2006]**	symptom free or having a large reduction in symptoms • the risk of clean intermittent catheterisation and the potential for it to be needed for variable lengths of time after the effect of the injections has worn off • the absence of evidence on duration of effect between treatments and the long-term efficacy and risks • the risk of adverse effects, including an increased risk of urinary tract infection **[new 2013]**	
Botulinum toxin B is not recommended for the treatment of women with idiopathic OAB. **[2006]**	Do not offer botulinum toxin B to women with proven detrusor overactivity. **[2013]**	Updated to improve clarity and implementation
Sacral nerve stimulation is recommended for the treatment of UI due to detrusor overactivity in women who have not responded to conservative treatments. Women should be offered sacral nerve stimulation on the basis of their response to preliminary percutaneous nerve evaluation. Life-long follow-up is recommended. **[2006]**	Offer percutaneous sacral nerve stimulation to women after MDT review if: • their OAB has not responded to conservative management including OAB drugs, and • they are unable to perform clean intermittent catheterisation. **[new 2013]**	The health economic evaluation of SNS in comparison with BoNT-A, along with the GDG clinical opinion, led to the recommendation that SNS should be a secondary or alternative procedure to BoNT=A
Augmentation cystoplasty for the management of idiopathic detrusor overactivity should be restricted to women who have not responded to conservative treatments and who are willing and able to self-catheterise. Preoperative counselling should include common and serious complications: bowel disturbance, metabolic acidosis, mucus production and/or retention in the bladder, UTI and urinary retention. The small risk of malignancy occurring in the augmented bladder should also be discussed. Life-long follow-up is recommended. **[2006]**	Restrict augmentation cystoplasty for the management of idiopathic detrusor overactivity to women whose condition has not responded to conservative management and who are willing and able to self-catheterise. Preoperative counselling for the woman or her carer should include common and serious complications: bowel disturbance, metabolic acidosis, mucus production and/or retention in the bladder, UTI and urinary retention. Discuss the small risk of malignancy occurring in the augmented bladder. Provide life-long follow-up **[2006, amended 2013]**	Updated to improve clarity and implementation
Urinary diversion should be considered for a woman with OAB only when conservative treatments have failed, and if sacral nerve stimulation and augmentation	Urinary diversion should be considered for a woman with OAB only when conservative management has failed, and if botulinum toxin A , percutaneous sacral nerve stimulation and	Updated to improve clarity and implementation

Recommendation	Replaced with	Reason for change/deletion
cystoplasty are not appropriate or are unacceptable to her. Life-long follow-up is recommended. **[2006]**	augmentation cystoplasty are not appropriate or are unacceptable to her. Provide life-long follow-up. **[2006, amended 2013]**	
Retropubic mid-urethral tape procedures using a 'bottom-up' approach with macroporous (type 1) polypropylene meshes are recommended as treatment options for stress UI if conservative management has failed. Open colposuspension and autologous rectus fascial sling are the recommended alternatives when clinically appropriate. **[2006]**	If conservative management for SUI has failed, offer: synthetic mid-urethral tape (see recommendations 1.10.3–8), or open colposuspension (see also recommendation 1.10.9), or autologous rectus fascial sling (see also recommendation 1.10.10). **[new 2013]**	Updated to improve clarity and implementation
Synthetic slings using a retropubic 'top-down' or a transobturator foramen approach are recommended as alternative treatment options for stress UI if conservative management has failed, provided women are made aware of the lack of long-term outcome data. **[2006]**	When offering a synthetic mid-urethral tape procedure, surgeons should: • use procedures and devices for which there is current high quality evidence of efficacy and safety • only use a device that they have been trained to use (see recommendations in section 1.11) • use a device manufactured from type 1 macroporous polypropylene tape • consider using a tape coloured for high visibility, for ease of insertion and revision. **[new 2013]**	Following the review of mid-uretheral tapes this recommendation was replaced to reflect the current evidence and requirement for a more detailed instruction.
Synthetic slings using materials other than polypropylene that are not of a macroporous (type 1) construction are not recommended for the treatment of stress UI. **[2006]**	When offering a synthetic mid-urethral tape procedure, surgeons should: • use procedures and devices for which there is current high quality evidence of efficacy and safety • only use a device that they have been trained to use (see recommendations in section 1.11) • use a device manufactured from type 1 macroporous polypropylene tape • consider using a tape coloured for high visibility, for ease of insertion and revision. **[new 2013]**	Following the review of mid-uretheral tapes this recommendation was replaced to reflect the current evidence and requirement for a more detailed instruction.

Recommendation	Replaced with	Reason for change/deletion
Intramural bulking agents (glutaraldehyde cross-linked collagen, silicone, carbon-coated zirconium beads or hyaluronic acid/dextran copolymer) should be considered for the management of stress UI if conservative management has failed. Women should be made aware that: • repeat injections may be required to achieve efficacy • efficacy diminishes with time • efficacy is inferior to that of retropubic suspension or sling. **[2006]**	Consider intramural bulking agents (silicone, carbon-coated zirconium beads or hyaluronic acid/dextran copolymer) for the management of stress UI if conservative management has failed. Women should be made aware that: • repeat injections may be needed to achieve efficacy • efficacy diminishes with time • efficacy is inferior to that of synthetic tapes or autologous rectus fascial slings.. **[2006, amended 2013]**	Collagen has been removed from current practice, and this recommendation has been updated to reflected this.

Appendix M Network meta-analysis

NMA methods

Clinical opinion is that most trials have a follow-up which is appropriate for the time at which most discontinuations and continence are expected to occur, therefore the number of discontinuations and people achieving continence at 4 and 12 weeks were modelled as probabilities rather than rates.

The probabilities of continence and discontinuation were modelled separately, although it should be noted that in general it is expected that only patients who do not discontinue will achieve continence.

A binomial / logit model within a generalized linear model framework was used to model each of the two outcomes – discontinuation and continence – at 4 and 12 weeks as this model is appropriate for probability outcomes. Use of a generalized linear model framework allows from the presentation of a unified account of how models can be compared using the Deviance Information Criterion (DIC), and how goodness of fit can be assessed using the residual deviance.

Due to lack of data, we assumed that relative treatment effects were equal at 4 and 12 weeks. Few trials reported at both time points making it difficult to check this assumption. However, the assumption is clinically plausible and the evaluation of model fit seems to confirm that the chosen models fit the data well.

The trial data formed four treatment networks: discontinuation at 4 weeks and 12 weeks and continence at 4 and 12 weeks. There are several treatments which are not connected to the main network at each of the time points.

For continence, we carried out a NMA assuming binomial likelihood with a logit link, and assuming that the log-odds ratios (LOR) of continence were the same at 4 and 12 weeks for trials reporting at both time points. Since there were 4 trials reporting continence status at both 4 and 12 weeks, a further NMA model was considered for continence, where the LORs of continence at 4 and 12 weeks within a trial reporting at both time points, were allowed to differ, but were assumed similar (exchangeable) with a common mean and variance.

For discontinuation, we carried out a NMA assuming binomial likelihood with a logit link, and assuming that the LORs of discontinuation were the same at 4 and 12 weeks for trials reporting at both time points. Since only one trial reported at both 4 and 12 weeks, a model where the treatment effects are considered similar instead of equal could not be fitted.

Below we give details and results for models for the baseline probability of discontinuation and continence on Oxybutynin IR; and NMA models to estimate the LORs of discontinuation and continence. Considerations on model fit and the comparison of the models assuming identical or exchangeable LORs at 4 and 12 weeks within a trial reporting both are also reported.

Discontinuation for any reason

For each of the time points, the number of discontinuations in the Oxybutynin IR arm of trial i (i=1 for both 4 weeks and 12 weeks) are assume to follow a Binomial likelihood

$$r_{i1} \sim \text{Binomial}\left(p_{i1}, n_{i1}\right)$$

where p_{i1} is the probability of discontinuation and n_{i1} are the total number of patients, in arm 1 (the Oxybutynin (immediate release) arm) of trial i. Because only one trial is included in the baseline meta-

analysis, a fixed effect (FE) model has to be used to estimate the baseline log-odds and probabilities. We model the probability of discontinuation on the logit scale

$$\text{logit}(p_{i1}) = m$$

To complete the model, in a Bayesian framework, vague priors were put on the pooled log-odds, $m \sim N(0,100^2)$. Separate models were run in WinBUGS 1.4.3 to calculate the probabilities of discontinuing at 4 and 12 weeks

The posterior distribution of the log-odds of discontinuation at 4 weeks on Oxybutynin IR was approximately normal with posterior mean –2.114 and standard deviation 0.27, which translates into a baseline probability of discontinuation on Oxybutynin IR of 11% with 95% credible interval (CrI) from 7% to 17%.

The posterior distribution of the log-odds of discontinuation at 12 weeks on Oxybutynin IR was approximately normal with posterior mean -0.7959 and standard deviation 0.52, which translates into a baseline probability of discontinuation on Oxybutynin IR of 31% with 95% CrI from 23% to 40%.

These results are used in the relative effects model to generate a baseline assumed to follow a normal distribution with the estimated mean and standard deviation (on the log-odds scale), onto which the relative effects estimated from the NMA were added at each iteration, to deliver the posterior summaries on the absolute probability scale for each treatment at 4 and 12 weeks.

Continence status

The probabilities of achieving continence in the Oxybutynin IR arm of trial *i* (*i*=1 for both 4 weeks and 12 weeks) were modelled in the same way as the probabilities of discontinuation.

The posterior distribution of the log-odds of continence at 4 weeks on Oxybutynin (immediate release) was approximately normal with posterior mean -0.9714 and standard deviation 0.4, which translates into a baseline probability of continence on Oxybutynin IR of 28% with 95% CrI from 14% to 45%.

The posterior distribution of the log-odds of continence at 12 weeks on Oxybutynin (immediate release) was approximately normal with posterior mean -1.321 and standard deviation 0.24, which translates into a baseline probability of continence on Oxybutynin IR of 21% with 95% CrI from 14% to 30%.

Relative effects model

Discontinuation for any reason

A logit model was used to obtain the LORs of discontinuation at 4-12 weeks for each treatment relative to Oxybutynin IR.

For each arm *k* of a trial *i* (*i*=1,…,44), the number of discontinuations at time point *j* in that trial, r_{ikj}, have a binomial likelihood

$$r_{ikj} \sim \text{Binomial}\left(p_{ikj}, n_{ik}\right) \quad (1)$$

where p_{ikj} is the probability of an event (discontinuation), n_{ik} are the total number of patients in arm *k* of trial *i* (the same at multiple time points) and the number of time points for each trial is given.

The parameters of interest are the probabilities of discontinuation and these are modelled using a NMA model (Lu and Ades 2004; Dias, Welton et al. 2011a) on the log-odds scale using a logit link such that

$$\text{logit}(p_{ikj}) = \mu_{ij} + \delta_{ik} \quad (2)$$

with μ_{ij} being given non-informative normal priors and $\delta_{i1} = 0$, since there is no relative treatment effect estimated for arm 1 of each trial. For trials reporting at two time points, the baseline log-odds of discontinuation, μ_{ij}, is allowed to vary with time point, but the trial-specific LOR remains the same.

In a random effects (RE) model the trial-specific treatment effects of the treatment in arm k, relative to the treatment in arm 1, are drawn from a common random effects distribution, under the assumption of consistency:

$$\delta_{ik} \sim N(d_{t_{ik}} - d_{t_{i1}}, \sigma^2) \quad (3)$$

where $d_{t_{ik}}$ represents the mean effect of the treatment in arm k in trial i, tik, relative to Oxybutynin IR, and σ^2 represents the between-trial variability in treatment effects (heterogeneity). The correlation between the random effects of the three -arm trials in the network is taken into account in the analysis (Dias, Welton et al. 2011a).
In the FE model we replace equation (2) with

$$\text{logit}(p_{ikj}) = \mu_{ij} + d_{t_{ik}} - d_{t_{i1}}$$

Again, for trials reporting at two time points, the baseline log-odds of discontinuation is allowed to vary with time point, but the trial-specific LOR remains the same.

The residual deviance and Deviance Information Criterion (DIC) were used to check model fit and to compare the fixed and random effects models.

Continence

The LORs of continence at 4-12 weeks for each treatment relative to Oxybutynin IR were obtained in the same way as those for discontinuation. Trials reporting at two time points are assumed to have different baseline log-odds of continence for each time point, but identical trial-specific LORs.

A further model was fitted to the data, which allowed for the LORs of continence to be, not identical, but exchangeable (i.e. similar) over the two time points, for trials which reported at both 4 and 12 weeks. In the exchangeable effects model, the likelihood is the same as in equation (1) but now the probabilities of continence for trials reporting at both 4 and 12 weeks are modelled as

$$\begin{aligned} &\text{logit}(p_{ikj}) = \mu_{ij} + \lambda_{ikj} \\ &\lambda_{ikj} \sim N(\delta_{ik}, \kappa^2) \end{aligned} \qquad (4)$$

So that the trial-specific treatment effects for trials reporting at the two time points come from a common distribution with a common, trial-specific, mean for both time points.

In a RE model the trial-specific treatment effects of the treatment in arm *k*, relative to the treatment in arm 1, are modelled as in equation (3) while in a FE model we have

$$\delta_{ij} = d_{t_{ik}} - d_{t_{i1}}$$

The probabilities of continence for trials reporting only at 1 time point are as before for random and fixed effects models.

The correlation between the random effects of the three-arm trials in the network is taken into account in the analysis.

The residual deviance and DIC were used to check model fit for the identical and exchangeable within-trial LORs at different time points and to compare fixed and random effects models.

Appendix N The cost effectiveness of overactive bladder drugs for wet overactive bladder with incontinence

This appendix contains additional details of the methodology, results and sensitivity analysis for the health economic modelling undertaken on drugs to treat overactive bladder with incontinence (OAB wet).

N.1 Structure of the health economic model for OAB drugs

The model is structured around two main model parameters: continence status (the percentage of women who are completely dry), and discontinuation rate (the percentage of women who discontinue treatment for any reason). Two separate models were developed. The first model considered continence status and discontinuation separately as this is how the data were reported in the clinical review presented in chapter 6. A woman with OAB can switch between health states (continence/incontinence) and treatment states (continue on treatment/ discontinue treatment) from week to week up until one year.

In a second model, it was assumed that all women who continue on treatment are continent and all women who discontinue are incontinent. In this version, data on discontinuation rates only was included after 4 weeks. The reason the second model was also developed is twofold: first, it was suggested by stakeholders that continuation and continence should not be modelled separately. Second, the 12-week incontinence derived from the network meta-analysis was based on the 4-week data for all drugs except oxybutynin (immediate release). The 12 week data were calculated by using the same relative effects as 4-weeks anchored to the actual 12-week continence rate for oxybutynin IR. Since the 12-week data for all other drugs were not based on published trial data, a different approach using only discontinuation data after 4 weeks (which was based on trial data) was also suggested to assess whether this changed the overall conclusions of the analysis.

In the first (base case) model, a hypothetical cohort of 1000 women with OAB, start on treatment and can either continue treatment week by week or discontinue treatment. It was not assumed that all women who continue are on successful treatment; some women who continue on treatment remained incontinent. The model was structured so that the probability of being continent and the probability of being on treatment were independently calculated for each cycle.

The pathway was as follows: a woman could be either on treatment and incontinent (treatment failure) or on treatment and continent (treatment success) or discontinuation and be incontinent (treatment failure). As the data from the network meta-analysis reported rates of discontinuation separately from rates of continence, the model was structured so that in each week, a woman could be both in a continence state and in a treatment state. When a woman discontinued treatment, she was assumed to receive no further active treatment for the duration of the model. The model further assumed that a woman who discontinued treatment was incontinent for remainder of the time period of the model (up

to one year). This is a simplification of reality in order to compare first line antimuscarinic treatments only.

The structure of this model is not a state transition model as an individual woman is in two states independently in each cycle. It was not possible to calculate exclusive health states for this model because the data on continence status and discontinuation were reported separately for each time point in the network meta-analysis (NMA) (at 4 and 12 weeks).

Cycle length was one month to reflect the usual prescriptions for OAB drugs in the NHS.

The alternative model structure was developed as a Markov chain state transition model. A woman could be in one of three exclusive health states in each cycle from 4 to 52 weeks (thirteen cycles in all). It was assumed that all women who discontinued were incontinent and all women who continued with treatment after 4 weeks were continent.

It was assumed for both models that women started off the model incontinent with a specific probability of being continent at the midpoint of a cycle (calculated as a half cycle adjustment of the 4 and 12 week probabilities).

The monthly rate of discontinuation between 4 and 12 weeks was assumed to be constant and calculated so that the cumulative rate was that reported in the network meta-analysis for each OAB drug. The GDG view was that this is likely to be an underestimate of the rate of discontinuation which is usually higher in the first 4 weeks due to lack of immediate efficacy. As the data available for this period were limited it was not possible to make a different assumption.

The rate of continence and discontinuation at one year was assumed to be constant for all drugs in the first instance with sensitivity analysis using recently published data considered in sensitivity analyses. The monthly rate of continence between 12 and 52 weeks was assumed to be constant.

The following schemas in figures N.1 and N.2 shows the structure of the two health economic models developed for this analysis. Tables N.1 and N.2 report the equations for deriving the state transitions.

Figure N.1 Structure 1. Treatment status and continence status are modelled independently in 4 week cycles up to one year (13 cycles). Data derived from network meta-analysis of trial data at 4 and 12 weeks,

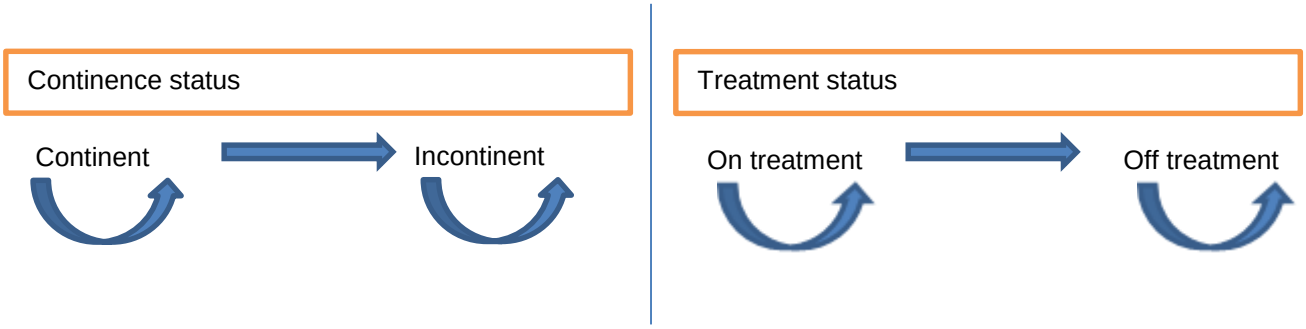


Table N.1 Equations for transition probabilities for model structure 1.

Cycle	Transition probability	Description
Continence status		
Cycle 1	p_1	Probability of being continent at the end of cycle 1
		Half cycle correction applied which assumes all women are incontinent the start of the cycle, and p_1 women are continent at the start of week 3
	residual	Probability of being incontinent at the end of cycle 1
Cycle 2 and 3	$[(p_3) /(p_1)]^{1/2}$	Probability of being continent at the end of cycle 2 and 3
	Residual	Probability of being incontinent at the end of cycle 2 and 3

Cycle	Transition probability	Description
Cycles 4 to 13	$[(p_{year}) /(p_3)]^{1/10}$	Probability of being continent at the end of cycles 4 to 13
	Residual	Probability of being incontinent at the end of cycles 4 to 13
Treatment status		
Cycle 1	q_1	Probability of being on treatment at the end of cycle 1.
		Half cycle correction applied which assumes all women are on treatment at the start of the cycle, and q_1 women are on treatment at the start of week 3
	residual	Probability of being off treatment at the end of cycle 1
Cycles 2 and 3	$[(q_3) /(q_1)]^{1/2}$	Probability of being on treatment at the end of cycle 2 and 3
	residual	Probability of being off treatment at the end of cycle 2 and 3
Cycle 4 to 13	$[(q_{year}) /(q_3)^{1/10}$	Probability of being on treatment at the end of cycles 4 to 13
	residual	Probability of being off treatment in cycles 4 to 13

Where;
P_1 is the probability of being continent at the end of cycle 1 (4 weeks)
P_3 is the cumulative probability of being continent at the end of cycle 3 (12 weeks)
P_{year} is the cumulative probability of being continent at one year.
q_1 is the probability of being on treatment at the end of cycle 1 (4 weeks)
q_3 is the cumulative probability of being on treatment at the end of cycle 3 (12 weeks)
q_{year} is the cumulative probability of being on treatment at one year.
Cumulative probabilities were calculated from the network meta-analysis probabilities for discontinuation and continence reported in chapter 6, table 6.13.

Figure N.2 Structure 2. Treatment status and continent status are combined into discrete health status. After the first 4-week cycle, continence is determined by continuation rate only.

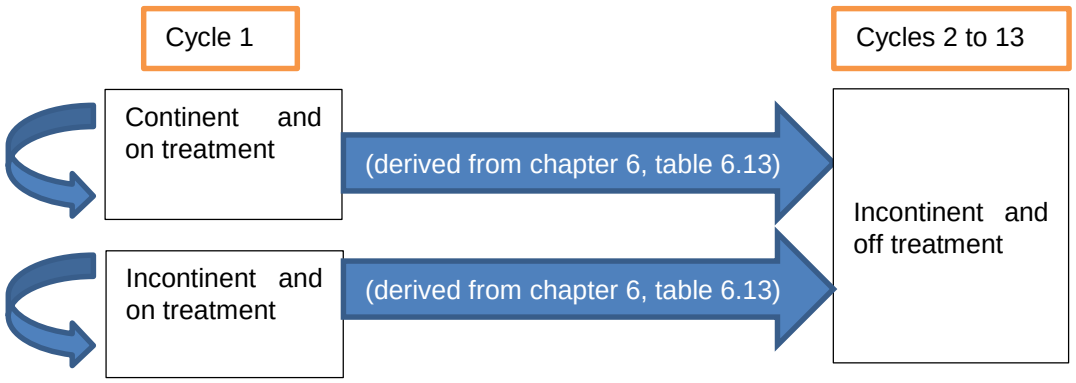


Table N.2. Equations for transition probabilities for model structure 2

State transition	Transition probability	Description
Continent/ On treatment		
Cycle 1	p_1	Probability of being continent in cycle 1
Cycles 2 and 3	$[(q_3) /(q_1)]^{1/2}$	Probability of being continent in cycles 2 and 3 assuming all women who remain on treatment are continent
Cycles 4 to 13	$[(q_{year}) /(q_3)]^{1/10}$	Probability of being continent in cycle 4 to 13 assuming all women who remain on treatment are continent
Incontinent/ On treatment		
Cycle 1	$1- [p_1 + (1-q_1)]$	Probability of being incontinent and on treatment in cycle 1
Cycles 2 and 3	$[(q_3) /(q_1)]^{1/2}$	Probability of being incontinent and on treatment in cycles 2 and 3 - same rate as for women who are continent
Cycles 4 to 13	$[(q_{year}) /(q_3)]^{1/10}$	Probability of being incontinent and on treatment in cycles 2 and 3 - same rate as for women who are continent
Incontinent/ Off treatment		
Cycle 1	$1-q_1$	Probability of being off treatment
Cycles 2 and 3	$1-\{[(q_3) /(q_1)]^{1/2}\}$	*Residual of the other two health states*
Cycles 4 to 13	$1-\{[(q_{year}) /(q_3)]^{1/10}\}$	Residual of the other two health states

N.3 Inputs into the health economic model

Parameters used in the PSA

All model parameters are reported in tables N.3 to N.6

Effectiveness and discontinuation parameters were derived from the network meta-analysis. A normal distribution was assumed for the log-odds of the baseline comparator drug which was oxybutynin (immediate release) at 4 and 12 weeks.

Relative treatment effects (continence status) were sampled from the posterior distributions of the log-odds ratios of every alternative drug compared with oxybutynin (immediate release). These log-odds ratios were then applied to the 20,000 simulated log-odds of oxybutynin (immediate release). It was then assumed that the log-odds were normally distributed with the mean and variance estimated from the meta-analysis. In the main network meta-analysis program, the estimated log-odds ratios were applied to the baseline log-odds of oxybutynin (immediate release) to simulate the absolute probabilities for the health economic model at 4 weeks. This was repeated for 12 week data for continuation. For continence status at 12 weeks, the log-odds of continence were calculated from a meta-analysis of the oxybutynin (immediate release) arms of the selected trials. The same relative effects as 4 weeks were then assumed for each OAB drug, anchored to oxybutynin (immediate release) data for 12 weeks. Because the 12-week probabilities for continence status for all other drugs were not derived from trial data in the NMA (as was the case for discontinuation probabilities), a second model was assumed that did not use 12-week continence status probabilities derived from the NMA.

The mean probabilities for each of the OAB drugs are reported in table 6.9 in the chapter 6.

Table N.3 Parameters for the baseline distributions (oxybutynin immediate release) from the NMA used in the probabilistic sensitivity analysis

Item	Mean log-odds	Standard deviation	Distribution
Oxybutynin (immediate release)	0.9714	2.49	Normal

Table N.4 Parameters for the comparator distributions (all OAB drugs other than oxybutynin immediate release) from the NMA used in the probabilistic sensitivity analysis

Item	Mean log odds ratio	Standard deviation
Solifenacin	-0.4078	0.39
Oxybutynin ER	-0.3537	0.4296
Tolterodine IR	-0.07722	0.3172
Propiverine IR	-0.2952	0.5762
Tolterodine ER	-0.6974	0.3868
Propiverine ER	-0.54	0.4223
Fesoterodine	-0.519	0.3872
Trospium IR	-0.3314	0.4689
Oxybutynin transdermal	-0.4836	0.5796
Darifenacin	-0.2298	0.4713
Trospium ER	-0.4162	0.4029
Oxybutynin topical gel	-0.4715	0.4221

Table N.5 Utility distributions used in the probabilistic sensitivity analysis

Utility	Mean	Std dev	Distribution	Source
Continence	Mean 0.85	0.24	Beta	Derived from Haywood et al 2008, reported in Imamura et al 2010.
Incontinence	Mean 0,85	0.32	Beta	

Four-weekly drug costs were calculated from the NHS drug tariff (June 2013). http://www.ppa.org.uk/ppa/edt_intro.htm. Prices were cross-checked with the BNF for the same time period. There was good agreement on prices from these two sources. The NHS tariff was used for all drugs except trospium extended release which had no published price in the NHS Drug Tariff and the BNF price was used. The trials were selected on the basis that they used the starting dose reported in the BNF. Where a range of doses was reported as starting dose in the BNF, the dose used in the trials was assumed (that is, for propiverine immediate release). Oxybutynin topical gel is not marketed in the UK, and therefore not reported in either the BNF or NHS Tariff. In that case, the price of the closest alternative was assumed (oxybutynin transdermal).

Table N.6 Calculation of four-week costs for drugs to treat OAB wet used in the model

Drug	Dose	Daily Freq.	Cost per pack	Pack size	Cost per day	Cost per week	Cost per 4 weeks
Solifenacin (Vesicare)	5 mg	1	£27.62	30	£0.92	£6.44	£25.78
Solifenacin (Vesicare)	10 mg	1	£35.91	30	£1.20	£8.38	£33.52
Tolterodine Tartrate	2 mg	2	£4.36	56	£0.16	£1.09	£4.36
Trospium chloride (non-proprietary)	20 mg	2	£26.00	60	£0.87	£6.07	£24.27
Propiverine	15 mg	3	£18.00	56	£0.96	£6.75	£27.00

Drug	Dose	Daily Freq.	Cost per pack	Pack size	Cost per day	Cost per week	Cost per 4 weeks
(Detrunorm®)							
Propiverine –ER (Detrunorm® XL)	30 mg	1	£24.45	28	£0.87	£6.11	£24.45
Darifenacin (Emselex®)	7.5 mg	1	£20.90	28	£0.75	£5.23	£20.90
Fesoterodine (Toviaz®)	4 mg and 8 mg	1	£25.78	28	£0.92	£6.45	£25.78
Oxybutynin (non-proprietary)	5 mg	3	£3.14	56	£0.17	£1.18	£4.71
Oxybutynin modified release (Lyrinel® XL)	5 mg	1	£13.77	30	£0.46	£3.21	£12.85
Oxybutynin modified release (Lyrinel® XL)	10 mg	1	£27.54	30	£0.92	£6.43	£25.70
Oxybutynin - transdermal (Kentera®)	1 patch	twice weekly	£27.20	8	£0.97	£6.80	£27.20
Oxybutynin – topical gel	not in BNF or NHS tariff						
Trospium Modified release (Regurin® XL)	60 mg	1	£23.05*	28	£0.82	£5.76	£23.05
Tolterodine Tartrate (Modified release)	4 mg	1	£25.78	28	£0.92	£6.45	£25.78

*not listed in the NHS Drug Tariff, price reported in the BNF only

First line versus second- and third-line treatment

The network meta-analysis reported continence status for OAB drugs as first-line treatment. Efficacy data were not reported for OAB drugs as second line therapy once a first-line drug had failed. After reviewing the evidence and receiving stakeholder comments, it was the view of the GDG that it could not be assumed that the efficacy of an OAB drug would be the same for a woman for whom OAB drug therapy had not achieved continence using a different drug. For that reason, a cost-effectiveness analysis of drug treatments as second line therapy that had been presented in the draft guideline was removed from the final version.

Calculating the average cost of drugs where two doses were reported

The only drug for which dose titration was reported and doses had different published prices was solifenacin. To calculate the weighted average cost of solifenacin, data on patient use of different doses was extracted from the studies included in the clinical review and the proportion of women on the different doses calculated (see table N.7 below).

In Chapple et al., 2005, 276/578 (48%) increased dose of solifenacin from 5mg to 10mg with an average dose of 7.4mg at endpoint. In Chapple et al., 2005, 276/578 (48%) increased dose of solifenacin from 5mg to 10mg with an average dose of 7.4mg at endpoint. In Vardy et al., 2009, 211/385 (55%) increased solifenacin dose from 5mg to 10mg (10 decreased) – average dose at endpoint = 8.9mg In Karram et al., 2009, 225/372 (60%) dose to increased dose of solifenacin from 5mg to 10 mg after two weeks average dose = 8mg

Table N.7 Calculation of the weighted average cost of solifenacin based on doses reported in the clinical trials included in the NMA

Dose of solifenacin	10 mg	5 mg	Total
Price*	£33.52	£25.78	
Study populations	712	623	1,335
Proportion of population by dose	53%	47%	
Published price*	£33.52	£25.78	
Weighted average price	£17.88	£12.03	£29.91

* calculated from 30-pill pack price in the NHS tariff for June 2013, for four weeks of drug treatment

Estimates of quality of life

Quality of life weightings (or 'utilities') for continence and incontinence have been published in the health economic literature (table N.8 below). There have also been data published on quality of life weightings of women experiencing varying degrees of severity of OAB symptoms. Severity was measured in the published studies as episodes of micturition (voluntary) and leakage (involuntary) per day. Where a health economic model is based on an individual patient level data in a clinical trial that reports episodes of micturition and leakage this approach may be feasible. The advantage of using levels of severity in a model is that it can capture improvements in quality of life that do not lead to complete recovery. The GDG had two concerns about this approach: First that episodes of micturition and leakage reported together may underestimate the severity of the condition (if most reported episodes were involuntary leakage then the woman would have a more severe condition than a woman whose episodes were mainly voluntary micturition). Second, an improvement in episodes of urgency or incontinence that did not lead to continence may be overstated as many of the problems women experience with carrying out their lives (leaving the home, working, socialising) would remain with any level of incontinence regardless of severity.

Therefore, the GDG chose to focus on continence status as the primary outcome in the health economic modelling. The GDG view was that drugs that lead to the most improved continence status ("absolutely dry") would also be the drugs leading to the most improved symptoms without achieving continence. Therefore, the cost-effectiveness of drugs is likely to be underestimated in this analysis.

A recent health technology appraisal reported values based on a systematic review of quality of life studies (Imamura et al., 2010). This study reported a review of the literature on values and reported the quality of life of weightings for "the success of treatment" and "the failure of treatment". These weightings were used in this model as the estimates for the health states 'continent' and 'incontinent'. Other published studies reported values within this range for women with different levels of severity of incontinence which supports the robustness of these estimates. Quality of life estimates reported in other studies are presented below.

Table N.8 Quality of life weightings ("utilities") for urinary incontinence identified in the literature

Author	QALY weightings		Notes
O'Brien et al., 2001	Well	0.74 (0.63-0.85)	EuroQoL-5D utility weight mean and 95% CI Based on published literature from 1986 to 1998 and consultation with clinical experts.
	Mild	0.72 (0.69-0.75)	
	Moderate	0.69 (0.65-0.73)	
	Severe	0.61 (0.55-0.67)	
Kobelt et al., 1998	State 1	0.742	Sweden – based on a willingness to pay study
	State 2	0.712	
	State 3	0.676	
	State 4	0.64	
	State 5	0.598	
Arlandis-Guzman 2011	Controlled (continent)	0.9569	Patient five-domain score from King's Health Questionnaire incorporated into an algorithm
	Uncontrolled	0.942	

Author	QALY weightings	Notes
		developed by Brazier et al. (2008) The values are higher than reported in other studies possibly because they do not include co-morbidity associated with UI (probability of depression, fracture, skin infection, and UTI) which are considered separately in the model.
Imamura et al., 2010	Treatment failure 0.74 Treatment success 0.85	Quality of life weights used in a Health Technology Appraisal of the cost-effectiveness of non-surgical treatments for stress urinary incontinence. The values used in the model were based on a structured review of health state utilities for urinary incontinence.

Health service costs apart from drugs

The economic analysis was conducted from the perspective of the UK NHS and includes the pharmacological costs and incontinence pad use. All costs were valued at 2011/12 prices and all dosages are based on the starting dose in the British National Formulary (April 2013). Pads use is included in the model as pads can be supplied by the NHS, but this is not always the case as the source of funding for continence pads varies across the country. They constitute a large part of the cost of incontinence which is saved by effective treatment.

Costs were derived from the number of women who are in treatment in any week (drug costs) and the number of women who are incontinent in any week (pad use) A woman who continues to experience incontinence incurs weekly costs for both her drug treatment and continued use of pads. Additional GP visits were included in the sensitivity analysis for women who discontinue treatment.

A GDG member obtained figures for the cost of continence pads from one English county. The weekly cost of supplying disposable continence products was £13,748, or £4.93 per woman. However, as this estimate was NHS costs only and did not include on-going lifestyle advice (for example from physiotherapists and continence advisors or in primary care), or physiotherapy sessions, the GDG considered this to be an underestimate of the total average cost per woman per week of incontinence as it was unlikely to include all overheads. In the first 'base case' analysis (before assessing the impact of changing key variables on cost-effectiveness), the cost of incontinence was estimated to be £8 per week which was the first estimate used in the economic model. This value was varied in the model to see if it changed the relative cost-effectiveness of the drugs. If it was found to be an important driver of the relative cost-effectiveness of drugs, then it would be important to ensure that the cost was accurately estimated. If a wide margin of error does not change the relative cost-effectiveness of drugs then an accurate estimate is less important.

The value of £8 per week is similar to that reported in the US study by Subak and colleagues who reported an annual cost of incontinence of $750 per person (Subak et al., 2006). This cost was varied in sensitivity analysis.

The cost of GP and specialist consultations were not included in the base case as it was not considered that these costs would differ by use of different drugs. This assumes that all women who start OAB drugs require follow-up in primary care whether they continue with drug treatment or not. The cost of treating adverse conditions was not included in the model (see 'Limitations of the analysis' for further discussion).

The original (base case) model assumed no additional costs associated with the side-effects of treatment. This was based on the GDG view that adverse events lasting longer than the period of treatment were very rare and the consequences of the most common adverse events (such as dry mouth and constipation) would not have a lasting effect on quality of life. However, women who discontinue treatment due to adverse events may require additional primary care support and this was not included in the base case analysis. Also, in very rare cases, there has been concern raised that oxybutynin (immediate release) may be associated with acute delirium requiring hospitalisation. The

cost of incontinence pads was provided by a GDG member. The cost was varied to assess its impact on the results.

To take these additional costs into account, a further sensitivity analysis was undertaken with the following variations in the model:

- 1 additional GP visit every eight weeks for women who discontinue antimuscarinic treatment and are no longer on active treatment for the remainder of the model. Cost per GP surgery consultation, £40 (PSSRU 2012)
- A hospitalisation episode for delirium in all age groups, calculated for 1 in 5000 women on oxybutynin (immediate release) was assumed. This was a GDG estimate based on the published literature on incidence of acute delirium with OAB drugs. The cost of hospitalisation was based on HRG code WD11Z (All Patient over 69 years with a mental health primary diagnosis treated by a non-specialist mental health service provider), local tariff £2029. Data provided by a GDG member based on local hospital data.
- Cost of incontinence (continence pads) was varied from £2 to £10 per week in sensitivity analyses

Longer term data in the health economic model

The systematic review of antimuscarinic therapy presented in chapter 6 reported data on:

- discontinuation rates for any reason at 4 and 12 weeks,
- discontinuation rates due to adverse effects alone at 4 and 12 weeks, and
- rate of adverse effects at 4 and 12 weeks.

A systematic review was not undertaken to identify studies reporting discontinuation rates at 52 weeks since the GDG members already knew that data trials did not routinely report follow-up at one year. A separate literature review was undertaken for the health economic analysis to identify non RCT evidence that reported longer term follow-up. Table N.9 below reports the data identified in the review on discontinuation rates reported in the literature for women with OAB treated with OAB drugs.

Table N.9 Long-term (up to one year) discontinuation rates reported in recent health economics studies

Author		Drug name		One-year discontinuation rate	95% CI if reported	Notes
Wagg et al., 2012	Cohort study	Solifenacin		65%		
		Tolterodine ER		72%		
		Propiverine		73%		
		Oxybutynin ER		74%		
		Trospium		74%		
		Tolterodine IR		76%		
		Oxybutynin IR		78%		
		Darifenacin		83%		
		Flavoxate		86%		
Arlandis et al., 2011	Economic evaluation	Fesoterodine	At week 24:	20.7%	Not reported	Assumed discontinuation was equal to placebo after end of the 12 week trial period. Assumption based on Chappel, Khullar et al., 2008
			At week 52:	40.7%	Not reported	
Speak	Economic	Solifenacin (5g	12	19%	Not	From an open label

Author		Drug name		One-year discontinuation rate	95% CI if reported	Notes
man et al., 2008	evaluation	and 10g)	months		reported	study by Haab et al., 2005
Herschorn et al., 2010	Economic evaluation	Solifenacin	1 year	62%	Not reported	Derived from a proprietary provincial claims database (Canada)
		Oxybutynin IR		83%		
				Cumulative incidence		
Gopal et al., 2008	Cohort study	Oxybutynin IR	4 months	0.52	0.50 to 0.54	Data from the Health Improvement Network data which includes anonymous data on GP prescribing for 4% UK population. Data from 1991-2005. At 24 months follow-up cum. inc. discontinuation was 90% for all drugs and approached 100% by 36 months
			5 months	0.64	0.62 to 0.67	
			6 months	0.71	0.68 to 0.73	
			9 months	0.81	0.78 to 0.83	
			12 months	0.86	0.84 to 0.88	
			24 months	0.94	0.91 to 0.96	
			36 months	0.96	0.95 to 0.98	
		Oxybutynin ER	4 months	0.42	0.40 to 0.45	
			5 months	0.51	0.48 to 0.53	
			6 months	0.57	0.55 to 0.59	
			9 months	0.72	0.69 to 0.74	
			12 months	0.80	0.78 to 0.83	
			24 months	0.93	0.91 to 0.96	
			36 months	0.97	0.95 to 0.99	
		All drugs	12 months	0.77		
Sexton et al., 2011 Systematic review		Oxybutynin IR	3 months	43%		Data from a medical claims database for the US department of Veterans' Affairs (USA, 1999)
			12 months	71%		
		Oxybutynin IR	6 months	78%		Data from a US pharmacy claims database (USA, 2000)

Author	Drug name		One-year discontinuation rate	95% CI if reported	Notes
	Oxybutynin IR	12 months	95%		Data from a Medicaid Claims database (USA 2005)
	Oxybutynin ER	12 months	94%		
	All drugs	12 months	87%		Data from a regional managed care plan (USA 2005)
	Oxybutynin ER	11 months	85%		Medication and pharmacy claims database (USA 2005)
	Oxybutynin IR	3 months	78%		Canadian database
Basra et al., 2008 Non-systematic review	Oxybutynin ER	One year	63% of those who remained on treatment in for more than 3 months continued for one year		One year extension study (2002, no country of origin provided)

The studies report high discontinuation rates for all OAB drugs at one year with discontinuation for all drugs reported to be around 73%.

Before the recent UK study had been published, the GDG agreed to assume a discontinuation rate of 80% for all OAB drugs at 12 months. Once the new study was published that demonstrated varying discontinuation rates at 12 months for some of the drugs, this was included in the health economic model as a sensitivity analysis to assess whether discontinuation at 12 months was an important variable in the analysis, that is, changing the order of cost-effectiveness. If this turned out to be the case, then a more careful scrutiny of 12 month data on the quality of the published studies would be required to come up with a more robust estimate.

For preparations that were not included in the published study, three scenarios were explored:

- The first sensitivity analysis assumed that the rates for the OAB drugs with missing data were the same as the lowest discontinuation rates reported (for solifeancin 65%).
- The second sensitivity analysis assumed that the rates for the OAB drugs with missing data were the same as the highest discontinuation rates reported (for darifenacin 83%)
- The third sensitivity analysis assumed that the rates for the OAB drugs with missing data were the midpoint between the highest and the lowest discontinuation rates (74%)

N.4 Description of probabilistic sensitivity analysis

Probabilistic sensitivity analysis is an approach to evaluating the robustness of cost-effectiveness results. When there are many input parameters, NICE recommends using probabilistic sensitivity analysis to characterise uncertainty. This allows several parameters to be varied simultaneously, rather than one at time as in one-way sensitivity analysis. In a probabilistic sensitivity analysis each input is assigned a probability distribution which is defined by measures of variability (such as standard deviations). A simulation is then set up to sample inputs at random from their assumed distributions. The simulation is run a large number of times (20,000 times for this probabilistic sensitivity analysis). If one option is consistently more cost-effective than the others then there is high probability that that option will always the most cost-effective option and decision-makers can have a higher level of confidence in the results of the analysis.

The mean four-week and 12-week continence rates were calculated from 20,000 probabilities generated by the NMAs. For one year discontinuation and continence rates were assumed to be constant across all OAB drugs due to the lack of long term data. Recent data were inputted in one of the sensitivity analyses (see below). No distribution could be calculated so is not included in the probabilistic sensitivity analysis.

Net benefit is another way of reporting and ordering the cost-effectiveness of alternatives by making costs and benefits into equal units. For each simulation, it uses a given willingness to pay threshold to value QALYs in monetary terms and then offsets the costs of alternatives against that valuation to arrive at a net monetary value for each intervention.

The network meta-analysis (NMA) provided baseline probabilities of continence at 4 weeks and baseline probabilities of continence at 12 weeks on oxybutynin (immediate release) which was the reference case in the NMA (since it was recommended in the previous version of the guideline). The same relative effects were then applied to obtain the absolute probabilities at 4 and 12 weeks for the other treatments.

N.5 Results

The data reported below are the base case results in more disaggregated form and the results of the sensitivity analyses

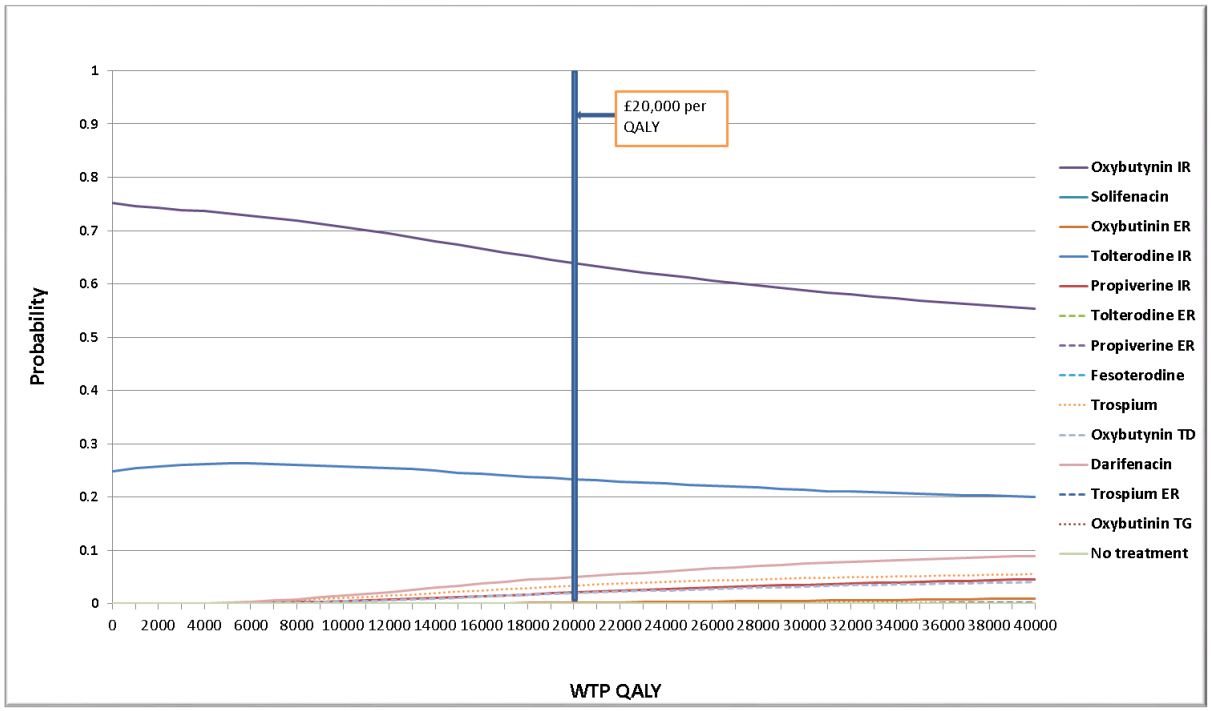
Base case results

The first table presented below is the costs and QALYs for each OAB drug presented in a disaggregated form for the base case analysis. The total values differ slightly from that reported in chapter 6 because the results in the chapter show the mean results of the PSA and the data reported here are from the deterministic model from which disaggregated values could be obtained.

Table N.10 Mean costs and QALYs reported in base case PSA model with a constant rate of discontinuation at 52 weeks of 80%, disaggregated (granulated) results.

	Cost			QALY		
Treatment	**Drugs**	**Incontinence**	**Total cost**	**Continence**	**Incontinence**	**Total**
Oxybutynin IR	£32	£330	£362	0.18	0.59	0.76
Tolterodine IR	£33	£338	£371	0.16	0.60	0.76
No treatment	-	£416	£416	-	0.74	0.74
Darifenacin	£160	£339	£499	0.16	0.60	0.76
Trospium ER	£171	£350	£522	0.13	0.62	0.76
Trospium	£180	£345	£525	0.15	0.61	0.76
Propiverine IR	£184	£351	£536	0.13	0.63	0.76
Propiverine ER	£181	£357	£538	0.12	0.63	0.76
Oxybutynin ER	£191	£347	£538	0.14	0.62	0.76
Oxybutynin TD	£189	£351	£541	0.13	0.63	0.76
Fesoterodine	£191	£356	£547	0.12	0.63	0.76
Oxybutynin TG	£205	£353	£558	0.13	0.63	0.76
Tolterodine ER	£196	£364	£560	0.11	0.65	0.75
Solifenacin	£225	£350	£576	0.13	0.62	0.76

Figure N.3 Cost-effectiveness acceptability curve for first-line antimuscarinic therapy to treat OAB wet, 20,000 simulations.



Consequences of changes in the model structure

Given that the probabilities generated by the NMA data after four weeks were not based on actual 12 week trial data for continence, a sensitivity analysis was undertaken that assumed that all women who discontinued treatment were incontinent and all women who continued were continent (using the model described as structure 2 above). This sensitivity analysis was undertaken assuming a constant 80% discontinuation at 52 weeks across all OAB drugs. .

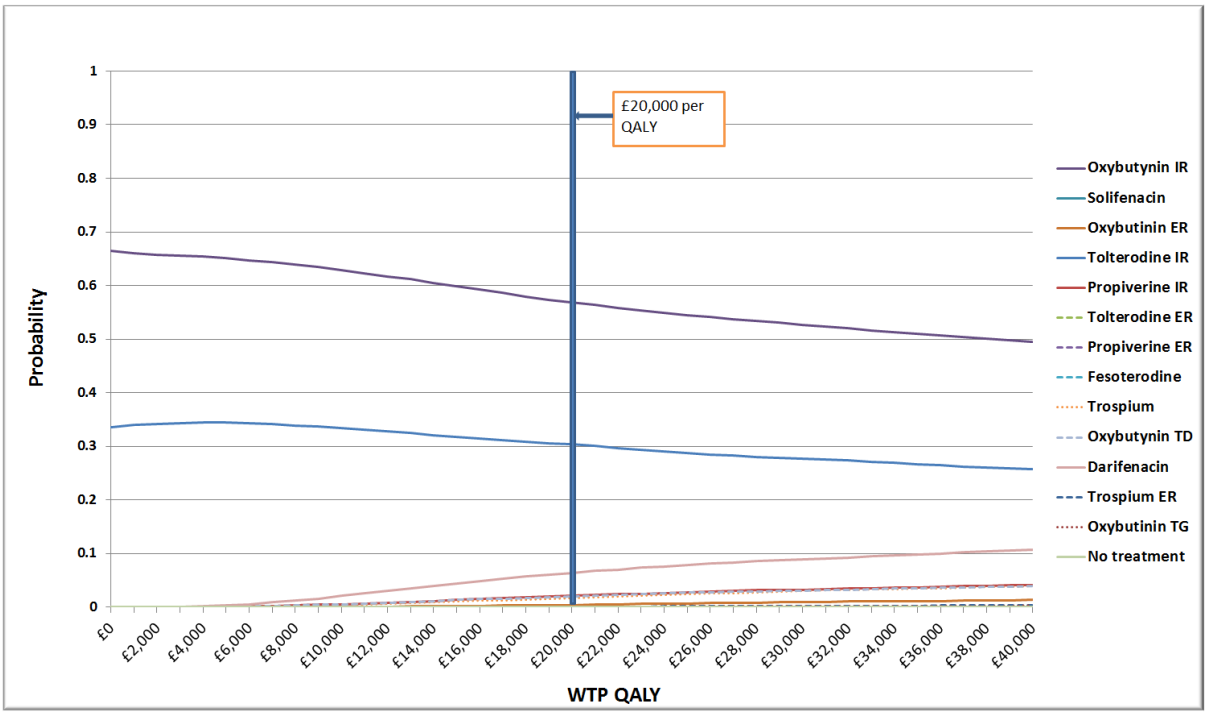
In the second model structure, the continence rate was only used to calculate health states for the first cycle. In the subsequent cycles, discontinuation data only were used to determine health state after the initial four-week cycle. Results are presented below.

Table N.11 Mean cost per QALY using base case PSA model of 20,000 simulations with a constant 80% discontinuation rate for all drugs at one year with discontinuation data only after 4 weeks

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£387.89	0.7560	dominates	£14,732
Tolterodine IR	£392.44	0.7550	dominated	£14,707
No treatment	£416.00	0.7401	dominated	£14,386
Darifenacin	£520.53	0.7548	dominated	£14,575
Trospium ER	£539.76	0.7525	dominated	£14,511
Trospium	£544.86	0.7535	dominated	£14,524
Propiverine ER	£553.86	0.7514	dominated	£14,475
Propiverine IR	£555.69	0.7518	dominated	£14,480
Oxybutynin ER	£557.02	0.7532	dominated	£14,507

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin TD	£559.71	0.7519	dominated	£14,479
Fesoterodine	£563.46	0.7516	dominated	£14,468
Tolterodine ER	£573.63	0.7502	dominated	£14,430
Oxybutynin TG	£574.70	0.7521	dominated	£14,468
Solifenacin	£592.98	0.7528	dominated	£14,463

Figure N.4 Cost-effectiveness acceptability curve for first-line antimuscarinic therapy to treat OAB wet using only discontinuation probabilities after four weeks, 20,000 simulations.



The probability that oxybutynin immediate release is the most cost-effective is lower (57% versus 65% in the base case) but the two most cost-effective treatments are still oxybutynin immediate release and tolterodine immediate release. Drugs with better continuation rates do not have a higher than 6% change of being cost-effective and solifenacin which has a better continuation rate has zero chance of being cost-effective.

To illustrate the impact of different discontinuation rates over 13 cycles, a Markov trace showing the proportion of women in each health state by cycle is reported below for two of the OAB drugs that had different discontinuation rates at 4 and 12 weeks, oxybutynin immediate release and solifenacin.

Table N.12 Markov trace for oxybutynin (immediate release) with model structure 2 (discontinuation probabilities only after 4 weeks)

Month	Continent/Treatment	Incontinent/Treatment	Incontinent/off treatment
1	28%	61%	11%
2	25%	53%	22%
3	22%	47%	31%
4	19%	42%	39%
5	17%	37%	46%
6	15%	32%	53%
7	13%	29%	58%
8	12%	25%	63%
9	10%	22%	67%
10	9%	20%	71%
11	8%	17%	74%
12	7%	15%	77%
13	6%	14%	80%

Table N.13 Markov trace for solifenacin with model structure 2 (discontinuation probabilities only after 4 weeks)

Month	Continent/Treatment	Incontinent/Treatment	Incontinent/off treatment
1	21%	74%	5%
2	20%	63%	17%
3	19%	53%	28%
4	16%	46%	37%
5	14%	40%	46%
6	12%	35%	53%
7	11%	30%	59%
8	9%	26%	65%
9	8%	22%	70%
10	7%	19%	74%
11	6%	17%	77%
12	5%	15%	80%
13	4%	13%	83%

PSA changes to model inputs - results

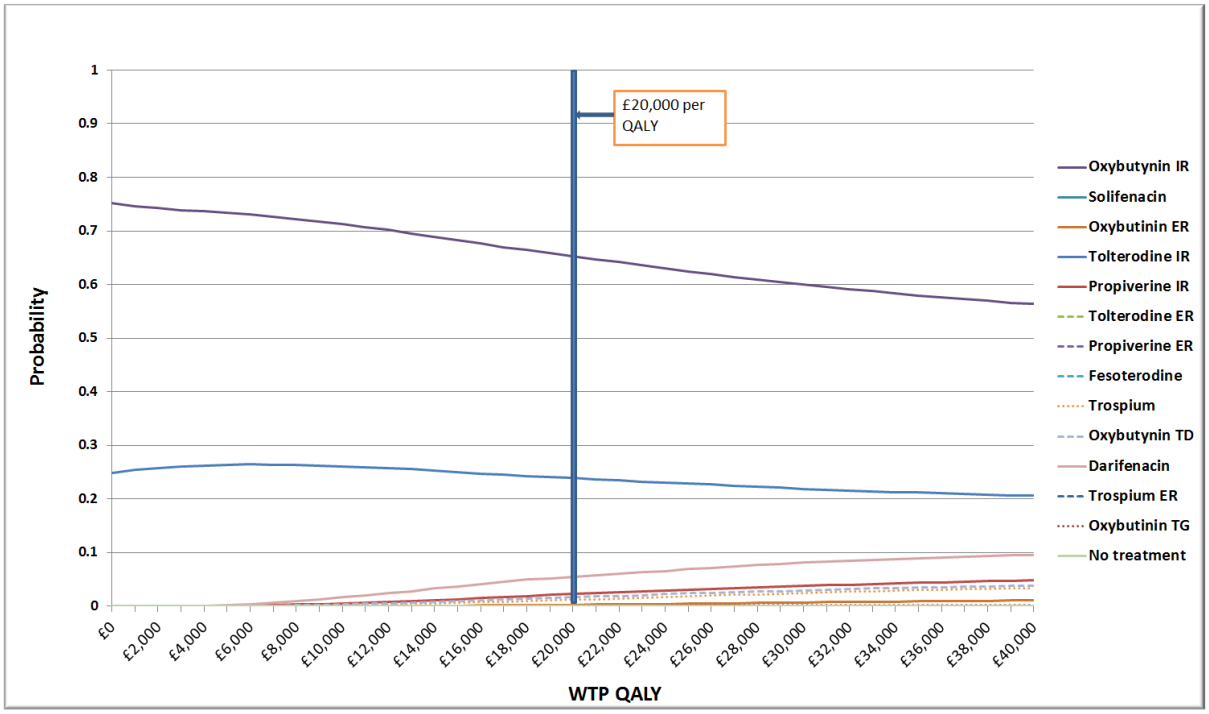
Sensitivity analysis 1

Changes in the assumption about longer-term use of drug therapy to treat OAB wet

Table N.14 Mean cost per QALY using base case PSA model (assuming lowest values for drugs with missing data (best case scenario)

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£364.50	0.7623	dominates	£14,882
Tolterodine IR	£375.43	0.7598	dominated	£14,821
No treatment	£416.00	0.7405	dominated	£14,393
Darifenacin	£498.60	0.7592	dominated	£14,685
Trospium	£538.74	0.7579	dominated	£14,619
Trospium ER	£547.43	0.7568	dominated	£14,589
Oxybutynin ER	£551.68	0.7577	dominated	£14,601
Propiverine IR	£551.77	0.7563	dominated	£14,573
Oxybutynin TG	£559.44	0.7562	dominated	£14,564
Propiverine ER	£564.27	0.7553	dominated	£14,543
Oxybutynin TD	£569.87	0.7563	dominated	£14,556
Fesoterodine	£574.99	0.7556	dominated	£14,536
Tolterodine ER	£576.34	0.7535	dominated	£14,494
Solifenacin	£608.73	0.7569	dominated	£14,529

Figure N.5 Cost-effectiveness acceptability curve for first-line antimuscarinic therapy using recently published one-year discontinuation of treatment (assuming lowest values for drugs with missing data (best case scenario), 20,000 simulations.



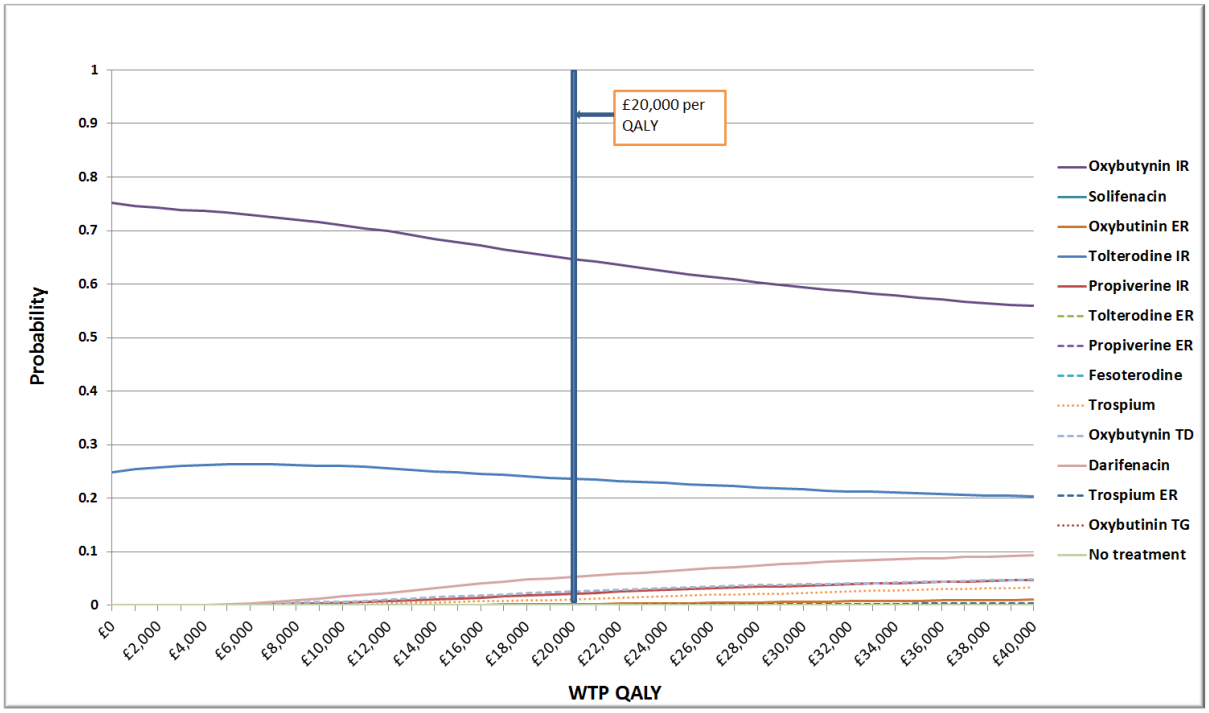
Sensitivity analysis 2

The data from a recent UK study was used for one year discontinuation (Wagg et al., 2012). The base case results reported in the chapter assumed that discontinuation rates for drugs with missing data was the median value of all reported drugs. In the first sensitivity analysis, the missing data was assumed to be the same as the highest discontinuation rates reported; the second assumption was that missing data were the same as the worst reported discontinuation rates reported. The results of using published discontinuation with the different assumptions for missing data are reported below. It shows that the two most cost-effective drugs did not change using this dataset, regardless of which assumptions were adopted about missing data. The probability of any other drug being the most cost-effective remained below 10%.

Table N.15 Cost per QALY using base case PSA model assuming highest values for drugs with missing data (worst case scenario)

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£362.68	0.7628	dominates	£14,894
Tolterodine IR	£372.10	0.7607	dominated	£14,842
No treatment	£416.00	0.7400	dominated	£14,384
Darifenacin	£494.12	0.7604	dominated	£14,713
Trospium ER	£516.04	0.7573	dominated	£14,631
Propiverine ER	£531.82	0.7557	dominated	£14,583
Oxybutynin TD	£534.22	0.7571	dominated	£14,608
Trospium	£535.48	0.7588	dominated	£14,640
Fesoterodine	£540.83	0.7559	dominated	£14,577
Propiverine IR	£548.78	0.7571	dominated	£14,593
Oxybutynin ER	£549.04	0.7583	dominated	£14,617
Oxybutynin TG	£557.74	0.7566	dominated	£14,575
Tolterodine ER	£575.76	0.7537	dominated	£14,498
Solifenacin	£606.85	0.7574	dominated	£14,541

Figure N.6 Cost-effectiveness acceptability curve for first-line antimuscarinic therapy using recently published one-year discontinuation of treatment (assuming highest values for drugs with missing data (worst case scenario), 20,000 simulations.



One way sensitivity analysis – results

The results below show that oxybutynin immediate release and tolterodine immediate release remained the most cost-effective OAB drug options in all scenarios explored in one-way sensitivity analysis. Taking into account additional costs for regular health service consultations for women who discontinued treatment or were on no treatment did not make drugs with better discontinuation rates relatively more cost-effective. The tables below report the results and further discussion of the results is presented in the evidence to recommendations section in chapter 6.

Sensitivity analysis 3 – GP costs

Table N.17 Cost per QALY with base case PSA model assumptions, with a constant 80% discontinuation rate for all drugs at one year with additional health service consultations for women who discontinue treatment

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£487.09	0.7628	dominates	£14,770
Tolterodine IR	£510.14	0.7607	dominated	£14,704
Darifenacin	£640.49	0.7604	dominated	£14,567
Trospium ER	£657.96	0.7573	dominated	£14,489
Propiverine IR	£660.19	0.7571	dominated	£14,482
Trospium	£660.57	0.7588	dominated	£14,515
Oxybutynin TD	£667.29	0.7571	dominated	£14,474
Propiverine ER	£673.74	0.7557	dominated	£14,441
Oxybutynin ER	£673.89	0.7583	dominated	£14,493

Treatment	Cost	QALY	ICER	Net Benefit
Fesoterodine	£683.20	0.7559	dominated	£14,435
Oxybutynin TG	£695.94	0.7566	dominated	£14,437
Tolterodine ER	£700.39	0.7537	dominated	£14,374
Solifenacin	£716.74	0.7574	dominated	£14,432
No treatment	£936.00	0.7400	dominated	£13,864

Sensitivity analysis 4 – increased risk of hospitalisation associated with oxybutynin IR

Table N.18 Cost per QALY with base case model assumptions with a constant 80% discontinuation rate for all drugs at one year with additional hospitalisation costs for oxybutynin IR

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£362.41	0.7628	dominates	£14,894
Tolterodine IR	£370.77	0.7607	dominated	£14,843
No treatment	£416.00	0.7400	dominated	£14,384
Darifenacin	£499.36	0.7604	dominated	£14,708
Trospium ER	£521.66	0.7573	dominated	£14,625
Trospium	£524.72	0.7573	dominated	£14,651
Propiverine IR	£535.82	0.7571	dominated	£14,606
Oxybutynin ER	£537.62	0.7583	dominated	£14,629
Propiverine ER	£537.78	0.7557	dominated	£14,577
Oxybutynin TD	£540.50	0.7571	dominated	£14,601
Fesoterodine	£547.11	0.7559	dominated	£14,571
Oxybutynin TG	£557.74	0.7566	dominated	£14,575
Tolterodine ER	£560.45	0.7537	dominated	£14,513
Solifenacin	£575.61	0.7574	dominated	£14,573

Sensitivity analysis 5 – higher and lower estimate of weekly incontinence pads costs

Table N.19 Cost per QALY with base case model assumptions with a constant 80% discontinuation rate for all drugs at one year with lower costs for incontinence pads (£2 per week)

Treatment	Cost	QALY	ICER	Net Benefit
No treatment	£104.00	0.7400	£141	£14,696
Oxybutynin IR	£114.76	0.7628	£471	£15,142
Tolterodine IR	£117.49	0.7607	dominated	£15,097
Darifenacin	£245.10	0.7604	dominated	£14,962
Trospium ER	£258.85	0.7573	dominated	£14,888

Treatment	Cost	QALY	ICER	Net Benefit
Trospium	£266.01	0.7588	dominated	£14,910
Propiverine ER	£270.38	0.7557	dominated	£14,844
Propiverine IR	£272.30	0.7571	dominated	£14,870
Oxybutynin TD	£276.97	0.7571	dominated	£14,865
Oxybutynin ER	£277.59	0.7583	dominated	£14,889
Fesoterodine	£280.22	0.7559	dominated	£14,838
Tolterodine ER	£287.30	0.7537	dominated	£14,787
Oxybutynin TG	£292.95	0.7566	dominated	£14,840
Solifenacin	£313.01	0.7574	dominated	£14,835

Table N.20 Cost per QALY with base case model assumptions with lower costs for incontinence pads (£10 per week)

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£444.41	0.7628	dominates	£14,812
Tolterodine IR	£455.19	0.7607	dominated	£14,759
No treatment	£520.00	0.7400	dominated	£14,280
Darifenacin	£584.11	0.7604	dominated	£14,623
Trospium ER	£609.27	0.7573	dominated	£14,538
Trospium	£610.96	0.7588	dominated	£14,565
Propiverine IR	£623.66	0.7571	dominated	£14,518
Oxybutynin ER	£624.30	0.7583	dominated	£14,542
Propiverine ER	£626.91	0.7557	dominated	£14,488
Oxybutynin TD	£628.35	0.7571	dominated	£14,513
Fesoterodine	£636.08	0.7559	dominated	£14,482
Oxybutynin TG	£646.00	0.7566	dominated	£14,487
Tolterodine ER	£651.50	0.7537	dominated	£14,422
Solifenacin	£663.15	0.7574	dominated	£14,485

Sensitivity analysis 6 – Extending the model time horizon using model structure 1 (continence status and discontinuation modelled independently)

For the following models, it was assumed that women do not change their treatment status or continence status after 12 months.

Table N.21 Cost per QALY at 2 years with base case model (model structure 1), using Wagg data for discontinuation at 12 months, assuming no change in health status or treatment status after 12 months

Treatment	Cost	QALY	ICER	Net Benefit

Oxybutynin IR	£697.24	1.4991	dominates	£29,284
Tolterodine IR	£711.45	1.4957	dominated	£29,203
No treatment	£817.93	1.4550	dominated	£28,282
Darifenacin	£866.15	1.4950	dominated	£29,035
Trospium ER	£945.79	1.4891	dominated	£28,835
Trospium	£947.97	1.4919	dominated	£28,891
Oxybutynin ER	£967.93	1.4910	dominated	£28,852
Propiverine ER	£973.05	1.4859	dominated	£28,744
Propiverine IR	£979.81	1.4886	dominated	£28,792
Oxybutynin TD	£980.28	1.4886	dominated	£28,791
Fesoterodine	£986.67	1.4862	dominated	£28,738
Oxybutynin TG	£999.95	1.4877	dominated	£28,754
Tolterodine ER	£1,018.50	1.4819	dominated	£28,619
Solifenacin	£1,074.39	1.4892	dominated	£28,710

Figure N.7 Two-year cost-effectiveness acceptability curve for first-line antimuscarinic therapy in model structure 1 using recently published one-year discontinuation of treatment (assuming midpoint values for drugs with missing data), 20,000 simulations.

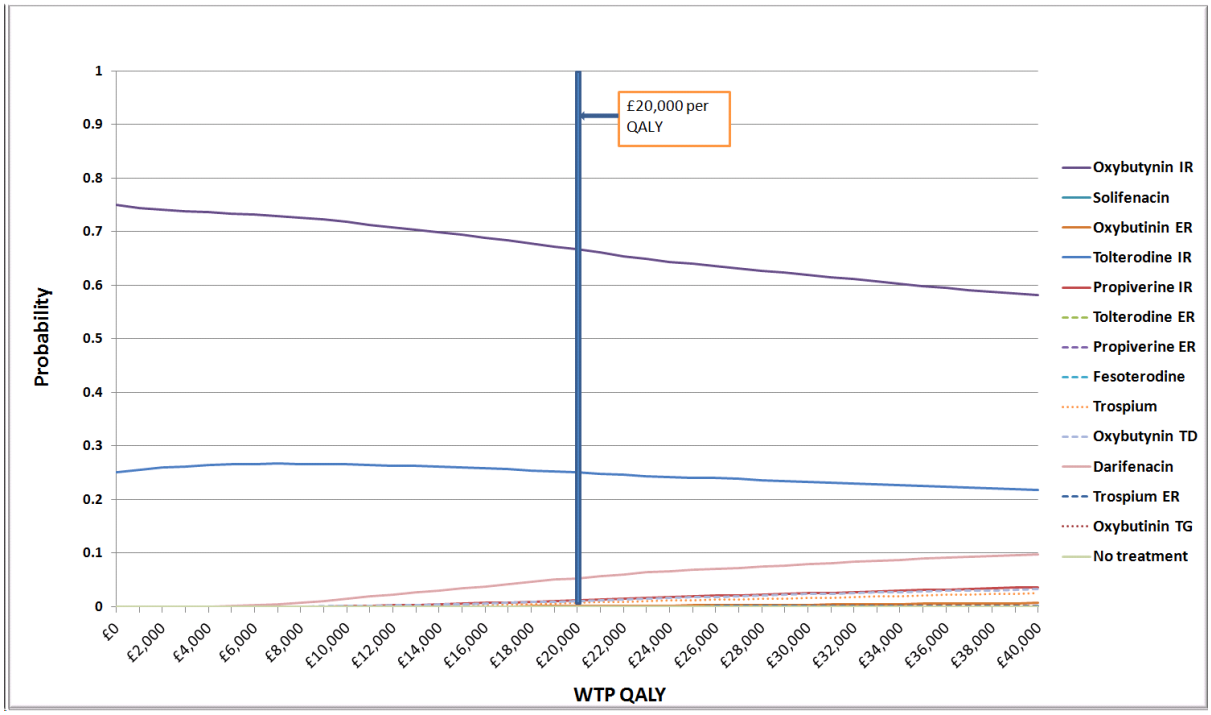
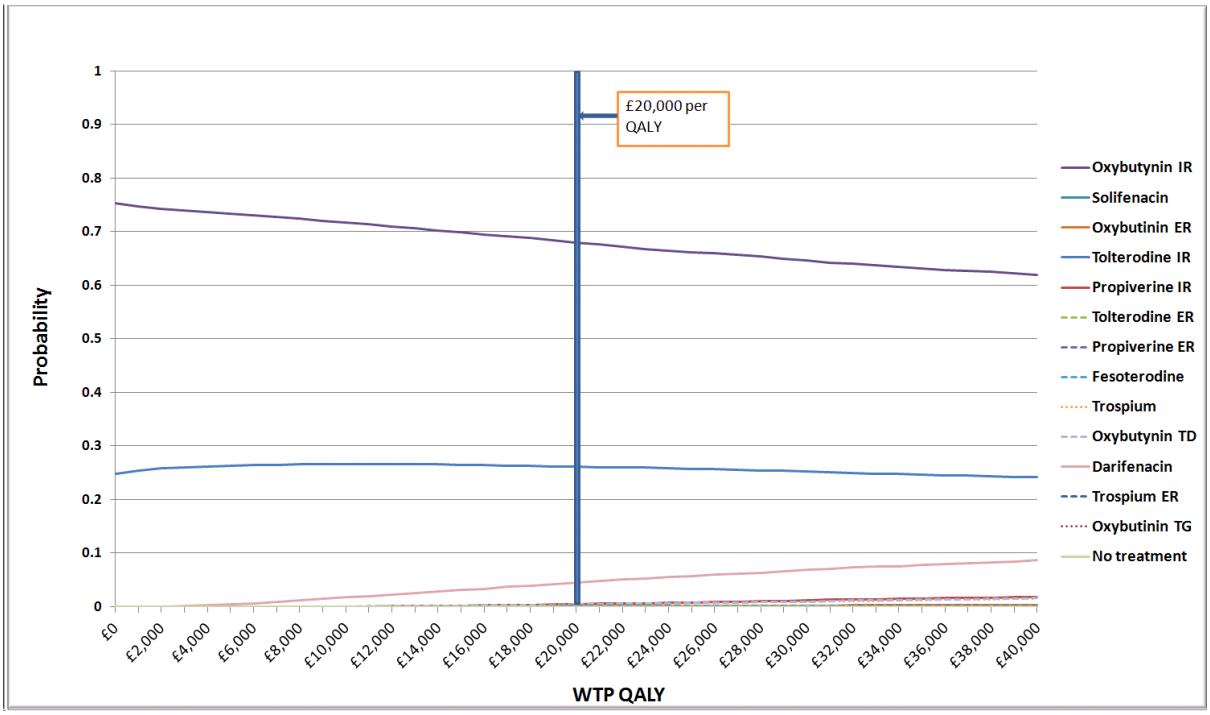


Table N.22 Cost per QALY at 5 years with base case model (model structure 1), using Wagg data for discontinuation at 12 months, assuming no change in health status or treatment status after 12 months

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£1,634.56	3.5617	dominates	£69,600
Tolterodine IR	£1,662.09	3.5549	dominated	£69,437
Darifenacin	£1,908.44	3.5534	dominated	£69,159
No treatment	£1,944.00	3.4581	dominated	£67,218
Trospium	£2,103.61	3.5459	dominated	£68,815
Trospium ER	£2,105.34	3.5391	dominated	£68,676
Oxybutynin ER	£2,141.52	3.5437	dominated	£68,733
Propiverine ER	£2,162.15	3.5315	dominated	£68,467
Oxybutynin TD	£2,180.28	3.5379	dominated	£68,578
Fesoterodine	£2,186.11	3.5323	dominated	£68,460
Propiverine IR	£2,187.39	3.5380	dominated	£68,572
Oxybutynin TG	£2,204.65	3.5358	dominated	£68,511
Tolterodine ER	£2,258.89	3.5219	dominated	£68,179
Solifenacin	£2,384.28	3.5394	dominated	£68,404

Figure N.8 Five-year cost-effectiveness acceptability curve for first-line antimuscarinic therapy in model structure 1 using recently published one-year discontinuation of treatment (assuming midpoint values for drugs with missing data), 20,000 simulations.



Sensitivity analysis 7 – Extending the model time horizon using model structure 2 (continence status dependent on treatment status after the first 4-week cycle)

Table N.23 Cost per QALY at 2 years using model structure 2, using Wagg data for discontinuation at 12 months, assuming no change in health status or treatment status after 12 months

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£774.00	1.4788	dominates	£28,801
Tolterodine IR	£780.56	1.4774	dominated	£28,768
No treatment	£817.93	1.4550	dominated	£28,282
Darifenacin	£946.45	1.4738	dominated	£28,530
Trospium ER	£1,000.05	1.4747	dominated	£28,494
Trospium	£1,007.60	1.4762	dominated	£28,516
Propiverine ER	£1,021.67	1.4730	dominated	£28,439
Oxybutynin ER	£1,025.77	1.4757	dominated	£28,488
Propiverine IR	£1,032.85	1.4746	dominated	£28,458
Oxybutynin TD	£1,034.32	1.4743	dominated	£28,451
Fesoterodine	£1,035.95	1.4732	dominated	£28,428
Oxybutynin TG	£1,053.57	1.4740	dominated	£28,426
Tolterodine ER	£1,057.70	1.4715	dominated	£28,372
Solifenacin	£1,115.75	1.4783	dominated	£28,450

Figure N.9. Two-year cost-effectiveness acceptability curve for first-line antimuscarinic therapy in model structure 2 using recently published one-year discontinuation of treatment (assuming midpoint values for drugs with missing data) , 20,000 simulations.

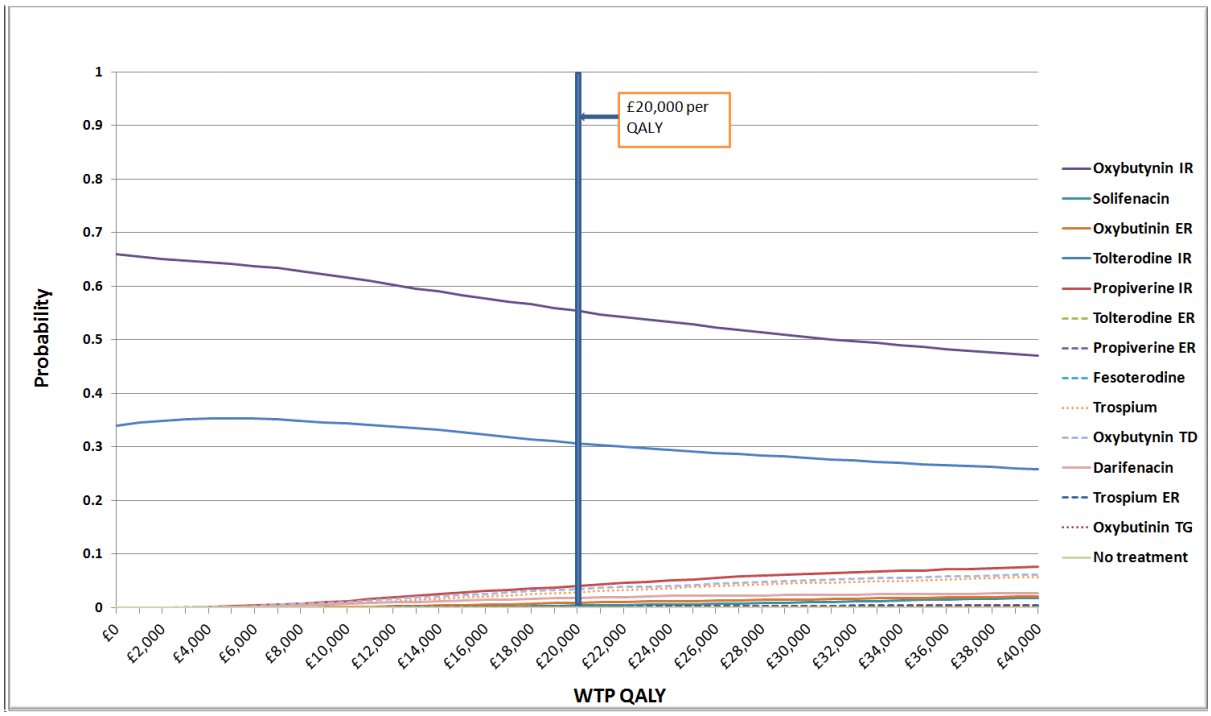
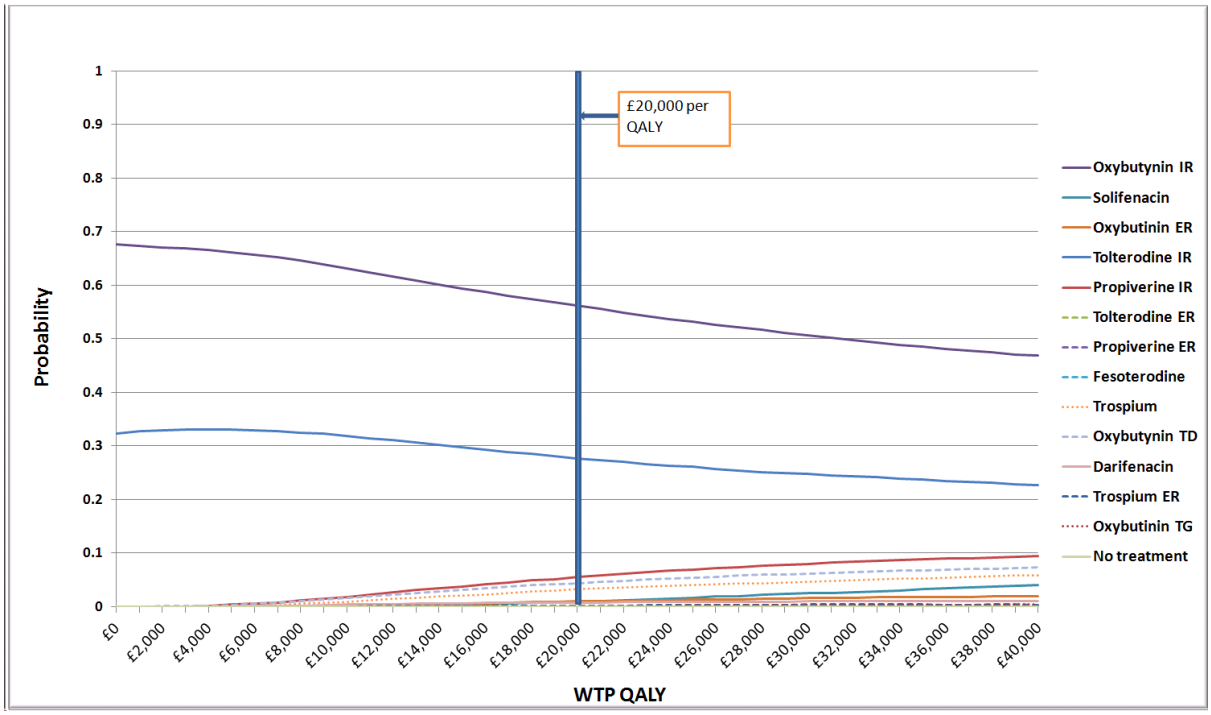


Table N.24 Cost per QALY at 5 years using model structure 2, using Wagg data for discontinuation at 12 months, assuming no change in health status or treatment status after 12 months

Treatment	Cost	QALY	ICER	Net Benefit
Oxybutynin IR	£1,858.14	3.5026	n/a*	£68,194
Tolterodine IR	£1,871.91	3.4995	dominated	£68,117
No treatment	£1,944.00	3.4581	dominated	£67,218
Darifenacin	£2,148.25	3.4899	dominated	£67,651
Trospium ER	£2,270.50	3.4954	dominated	£67,638
Trospium	£2,284.18	3.4982	dominated	£67,679
Propiverine ER	£2,310.57	3.4922	dominated	£67,534
Oxybutynin ER	£2,317.11	3.4973	dominated	£67,629
Fesoterodine	£2,336.47	3.4925	dominated	£67,514
Oxybutynin TD	£2,340.86	3.4955	dominated	£67,569
Propiverine IR	£2,343.92	3.4966	dominated	£67,588
Oxybutynin TG	£2,370.19	3.4939	dominated	£67,507
Tolterodine ER	£2,381.13	3.4896	dominated	£67,410
Solifenacin	£2,515.63	3.5047	£315,063	£67,578

*dominates all drug options except solifenacin which is more effective but more expensive. The ICER for solifenacin compared with oxybutynin IR is outside the £20,000 per QALY threshold for cost-effectiveness

Figure N. 10 Five-year cost-effectiveness acceptability curve for first-line antimuscarinic therapy in model structure 2 using recently published one-year discontinuation of treatment (assuming midpoint values for drugs with missing data), 20,000 simulations.



Appendix O Overactive bladder procedures – health economics

Table O.1. Resource use and unit costs used to estimate the cost of sacral nerve stimulation for the health economic model

Cost item	Value	Description of HRG codes	Source	Notes
EITHER *Percutaneous nerve evaluation*				
Insertion of neurostimulator	£1,096	HRG code AA21Z intracranial prodecures except trauma with other diagnoses	Medtronic and an NHS provider, 2012	Based on OPCS code A70.4 Insertion of neurostimulator electrodes into peripheral nerve
Follow-up outpatient appointment	£99	HRG code - admitted patient care & outpatient procedures. Urology follow-up attendance (multiprofessional)	Medtronic 2012	Follow-up required for removal of PNE
External pulse generator	£10		NHS provider 2012	Cost of generator is £350. Approximate use, 20 times.
Test stimulation kit	£210		Medtronic 2012	
Nurse led visit (during 3 weeks)	£70	Non consultant -led face to face OP	PSSRU 2011	
Total cost PNE	**£1,485**			
OR *Two-stage trial (not all patients)*				
Tined lead	£1,300		NHS 2012	Undertaken on the NHS
Lead introducer kit	£200		NHS 2012	
External pulse generator	£10		NHS 2012	
Procedure	£1,096	HRG code AA 21Z Intracranial Procedures Except Trauma with other Diagnoses - category 1 or 2	NHS provider, checked with Medtronic, 2012	Medtronic model has this cost again for removal of tined lead
Follow-up review	£70			

Cost item	Value	Description of HRG codes	Source	Notes
Nurse led visit (during 3 weeks)	£70	Non consultant -led face to face OP	PSSRU 2011	
Total, two-stage trial	**£2,746**			
Follow-up in case of failure (both test procedures)				
Nurse led visit (during 3 weeks)	£70	Non consultant -led face to face OP	PSSRU 2011	
Procedure to explants temporary electrodes	£1,096			This may be less than the £1,096 tariff AA 21Z, as it is a small procedure
Permanent implant				
Tined lead (included if two-stage trial not undertaken) (Not included in this analysis)	£1,300		NHS provider 2012	Undertaken on the NHS
Lead introducer kit (included if two-stage trial not undertaken) (Not included in this analysis)	£200		NHS provider 2012	
Implantable pulse generator	£5,700		NHS, checked with Medtronic, 2012	
HRG code for SNS	**£2,441** Other estimates: £2,615 (With MFF*) £1,800 (excl MFF*)	HRG code AB01Z Complex neurological pain procedure	Medtronic 2012 NHS 2012	HRG code for complex neurological pain procedures, Combined day case / ordinary elective tariff (£)
Patient controlled programmer	£500		NHS, checked by Medtronic, 2012	Hand-held device given to every patient (1 per patient)
Total cost permanent implant (excluding tined lead and lead introducer kit)	**£8,641**			
Replacement of implantable pulse generator				
Device	£5,700		NHS 2012	
HRG code for battery change	£923	OPCS-4 code A70.2 Maintenance of neurostimulator in peripheral nerve AB02Z Complex Major Pain	NHS 2012	Estimate provided

Cost item	Value	Description of HRG codes	Source	Notes
		Procedures		
Total cost replacement generator	£6,623			
SNS removal				
SNS removal	£923	OPCS-4 code	NHS 2012	NHS
		A70.2 Removal of neurostimulator in peripheral nerve		
	£2,441	AB02Z Complex Major Pain Procedures		Medtronic
		AB01Z Complex neurological pain procedure		
Total cost of SNS removal	£923			

*Market Forces Factor, used to reflect differences in costs across the regions of the NHS.

Table O.2 Resource use and unit costs used to estimate the cost of BoNT-A for the health economic model

Cost item	Value	Notes
Procedure	£403	HRG LB14E (previously LB14C), tariff 2013
Drug cost	£276.40	Botulinum A toxin, 200 units
		BNF, June 2013
Catheter cost	£102.20	Assumes 4 catheters per day at £1.40 each, for 20% of women
Nurse led visit (during 3 weeks)	£70	Non consultant -led face to face OP, PSSRU 2013
Total initial injection cost	851.60	
Cost repeat procedure	£249.80	1/3 cost of procedure and drugs, as model assumes a repeat injection is required every nine months. Catheter costs are the same
Catheter cost	£102.20	As above
Total repeat injection cost	£352	

Table O.3 Alternative cost based on the costing template for BoNT-A in 2012 supplied by Medtronic

Resource	Code	Source	Cost
1 course BoNT-A / 150 IU		BNF Sept 2011	207.30
Procedure and cystoscopy (endoscopy of the bladder_ for injection of boNT-A (day case)	Bladder intermediate endoscopic procedure	HRG LB14E (day case)	£403
Review visit	Consultant-led follow-up attendance –single professional	WF01A	£187
Total			£590

Appendix P Guideline questions (2006)

Assessment and investigation

For each 'test', or form of investigation or assessment for UI, up to five questions were addressed, as indicated by ticks in the following matrix.

Test	Question				
	Test used to indicate alternative pathway?	*Diagnostic accuracy (sensitivity, specificity, positive and negative predictive values)*	*Test used to direct treatment or predict outcome? Does it affect outcome?*	*Test used to direct treatment or predict outcome? Does it predict outcome?*	*Test used to measure severity? Test–retest reliability*
Urinary history	✓	✓	✓	X	✓
Bowel history	✓	x	x	x	x
Medical history	✓	x	x	x	x
Surgical history	x	x	✓	x	x
Obstetric history	x	x	x	x	x
Drug history	x	x	x	x	x
Social circumstances	x	x	x	x	x
Expectations and motivation	x	x	x	x	x
Cognitive function	✓	x	x	x	x
Physical examination	✓	x	x	x	x
Neurophysiology	✓	✓	x	x	x
Pelvic floor muscle assessment	x	x	✓	x	✓
Assessment of prolapse	✓	✓	✓	x	✓
Urine testing	✓	✓	✓	x	x
Assessment of residual urine	✓	✓	✓	x	✓
Symptom scoring and quality of life	x	x	x	x	✓
Bladder diary	x	x	x	x	✓
Pad testing	x	x	✓	x	✓
Urodynamics	✓	✓	✓	✓	✓

Test	Question				
Other tests of urethral competence (Q-tip, Fluid-Bridge, Bonney, Marshall)	x	✓	x	✓	x
Cystoscopy	✓	✓	x	x	x
Imaging	✓	✓	✓	x	x

✓ indicates the question was addressed; X indicates that the question was not considered to be relevant to the 'test' and therefore the question was not addressed.

General

What is the impact of providing information to a woman with UI or OAB in terms of their satisfaction with the outcomes of treatment?

Conservative techniques

Conservative techniques for the treatment of UI

What is the effectiveness of conservative techniques for the treatment of UI or OAB in women? Where the conservative techniques considered are:

- lifestyle changes (bowel habit, dietary factors, caffeine, fluid intake, smoking, weight, physical exercise)
- other behavioural therapies (toileting regimens)
- physical therapies (pelvic floor muscle training [PFMT], vaginal cones, biofeedback, electrical stimulation, transcutaneous electrical nerve stimulation [TENS], posterior tibial nerve stimulation, magnetic stimulation)
- drug treatment (antimuscarinic drugs, desmopressin, diuretics, duloxetine, oestrogens)
- complementary therapies (acupuncture, herbal medicines, hypnosis, aromatherapy, massage, reflexology, osteopathy).

(Effectiveness encompasses benefits, unwanted effects, cost effectiveness, and use of the interventions as monotherapy or in combination with other therapies, at any point in the care pathway.)

Sub-questions for conservative techniques

What is the comparative cost effectiveness of different conservative techniques? Is one method of PFMT better than another?

Conservative techniques for the prevention of UI

What is the effectiveness of lifestyle changes, behavioural and physical therapies for the prevention of UI or OAB in women?

Non-therapeutic interventions (containment)

In what circumstances should containment be used as the only intervention for women with UI or OAB?

In what circumstances should containment be used prior to more definitive treatment for women with UI or OAB?

Does containment have an impact on quality of life, maintenance of independent living and rates of institutionalism, or return to work in women with UI or OAB?

Surgical procedures

What is the effectiveness of procedures to suspend the vaginal wall for the treatment of UI or OAB in women?

Where the procedures are:

- suprapubic: open colposuspension, laparoscopic colposuspension (Marshall–Marchetti–Krantz [MMK] or Burch colposuspension, vagino-obturator shelf procedure)
- bladder neck needle suspension (Pereyra, Stamey, Raz, Gittes)
- vaginal (anterior colporrhaphy).

What is the effectiveness of suburethral retropubic space slings using autologous/biological or synthetic material for the treatment of UI or OAB in women?

Where the suburethral retropubic space slings are:

- biological: autologous (fascia, dermis, tendon); allograft (fascia, dermis, dura); xenograft (porcine dermis, bovine pericardium, dura, small intestine submucosa)
- synthetic (e.g. tension-free vaginal tape, suprapubic arc sling).

What is the effectiveness of suburethral obturator foramen procedures using biological or synthetic tapes for the treatment of UI or OAB in women?

Where the suburethral obturator foramen procedures are:

- biological tapes
- synthetic tapes (e.g. transobturator tape, transobturator suburethral tape).

What is the effectiveness of implantable devices that have been designed to augment urethral sphincter pressures for the treatment of UI or OAB in women?

Where the devices are:

- intramural urethral injectables (bulking agents)/devices (e.g. collagen, hydroxyapatite, silicone [ACT Balloon], polytetrafluoroethylene)
- artificial urinary sphincters (AUS): extraurethral circumferential variable resistance devices (e.g. the AMS artificial urinary sphincter).

What is the effectiveness of augmentation cystoplasty for the treatment of UI or OAB in women?

What is the effectiveness of sacral nerve stimulation for the treatment of UI or OAB in women?

What is the effectiveness of detrusor myectomy for the treatment of OAB in women?

What is the effectiveness of urinary diversion for the treatment of UI or OAB in women?

What is the effectiveness of botulinum toxin for OAB in women?

What is the effectiveness of vanilloid receptor agonists for OAB in women?

What is the effectiveness of removal of concurrent pelvic pathology (hysterectomy) as a treatment for UI in women?

Optimal sequence questions

What is the optimal sequence of interventions and timescales for women with stress UI?

What is the optimal sequence of interventions and timescales for women with mixed UI?

What is the optimal sequence of interventions and timescales for women with overactive bladder (wet or dry)?

Competence

What are the core competencies required by a surgeon performing surgical procedures to treat UI or OAB in women?

Appendix Q Findings of urinary history taking compared with urodynamics (2006)

We found no studies in which clinical outcomes in women with UI diagnosed by clinical history alone were compared with those in women with UI diagnosed using urodynamics. However, several studies have evaluated the accuracy of the symptom of stress or urge UI relative to findings on urodynamic (UD) investigations in women undergoing assessment of their urinary symptoms. Most of these studies have been considered in two reviews and a health technology assessment of diagnostic methods for UI.[46–48] Two of the publications included studies of women with symptoms of stress, mixed or urge UI[46,48] and one included only studies evaluating women with stress UI.[47] The reviews that included women with stress, mixed or urge UI calculated and combined sensitivity and specificity data for the symptom of stress (be it with or without mixed symptoms) and for the symptom of urge UI (be it with or without mixed symptoms). The GDG considered that the mixed 'symptom' should be considered separately (because in practice women are categorised into those with stress, mixed or urge UI) and that the important question in relation to the comparison ofurinary history with urodynamic findings is whether urodynamics gives additional information to that obtained from the history alone. In considering this question, the GDG took the approach that a clinical history would be taken for every woman, and that a positive history for a particular type of UI would always be followed by treatment appropriate to that type of UI.

Overall, 25 relevant studies that compared the diagnosis based on history with urodynamic findings were considered by the GDG. These studies used cystometry as the reference standard for diagnosis of UI, and therefore assumed that history taking had a lower diagnostic value in comparison. Fourteen studies included women with stress, mixed or urge UI, and eleven presented raw data in a way that allowed sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) to be calculated.[49–62] Two of these studies only reported accuracy data for stress and mixed UI.[61,62] Five studies only investigated how a history of urge UI or OAB compared with urodynamic findings of DO.[63–67] Six studies only investigated how a history of stress UI compared with the finding of urodynamic stress incontinence,[68–73] four of which provided some but not all accuracy data.

Multichannel cystometry (with or without uroflowmetry, urethral pressure profilometry, or cystourethrography) was the urodynamic method used in 24 studies. The remaining study used singlechannel cystometry for women with urge UI (and suspected DO) and multichannel cystometry for women with stress UI.[50] All except four studies[62–64,70] stated that terminology used for urodynamic findings conformed to ICS standards.

With the exception of one study,[49] which involved primary and secondary care, all studies were conducted in secondary or tertiary care.

The GDG focused on the 11 studies that provided diagnostic accuracy data for stress, mixed and urge UI. Confidence intervals were calculated for each value, as this was considered to be more appropriate than pooling data from individual studies. Pooling the available data (by meta-analysis) or generating receiver operating characteristic curves was not considered to be appropriate because:

- the population in each study varied in terms of the relative proportions of stress, mixed or urge UI. The percentage of study participants with urodynamic stress incontinence

varied from 34% to 63% (median 52%); the proportion with urodynamic stress incontinence plus DO ranged from 10% to 28% (median 19%), and for DO the range was 7–32% (median 17%).

- the methods used to obtain a history varied; a structured questionnaire or standardised form was used in seven of the 11 studies,[49–53,57,58] and the remainder only specified that a history had been taken[54–56,59]
- the studies were generally considered to be of poor quality; none stated whether urodynamic testing was undertaken blind to findings of history taking.

For the 11 studies that included women with stress, mixed or urge UI, and reported raw accuracy data for the three types of UI separately, the results are described below and also shown with 95% confidence intervals in Figures Q.1 to Q.12 (see evidence tables for full details of individual studies).[49–59]

The sensitivity, specificity, PPV and NPV values were calculated as shown in Table Q.1. We consider that the NPV is of particular interest in terms of assessing whether urodynamics provides additional information compared with clinical history, because this quantity summarises the extent to which a negative history is associated with a negative finding on urodynamics (i.e. whether carrying out urodynamics would alter the diagnosis and, more importantly, management, for women who do not report a particular UI symptom).

Table Q.1 '2 × 2' table for calculation of diagnostic accuracy parameters

	Reference standard (UD) positive	**Reference standard (UD) negative**	**Total**
Test (history) positive	A	B	A + B
Test (history) negative	C	D	C + D
Total	A + C	B + D	(A + B + C + D = total N in study)

Sensitivity = a/(a + c); specificity = d/(b + d); PPV = a/(a + b); NPV = d/(c + d)

In diagnostic accuracy studies 'prevalence' usually refers to the proportion within a study who have positive findings using the reference standard (and is given by (a + c)/(a + b + c + d)). The term 'prevalence' is used from here on for simplicity, to reflect the proportion of women in these studies who have a particular urodynamic finding. Sensitivity is normally unaffected by prevalence because it depends on the number of 'true positives' but not on the number of 'true negatives'. Similarly, specificity is normally unaffected by prevalence because it depends on the number of true negatives but not on the number of true positives. However, PPV and NPV both vary with prevalence because they both depend on the numbers of true positives and true negatives. PPV normally increases with increasing prevalence, whereas NPV normally decreases with increasing prevalence (provided sensitivity and specificity are both held fixed). PPV also increases with increasing sensitivity, provided specificity and prevalence are both held fixed. Similarly, NPV normally increases with increasing specificity, provided sensitivity and prevalence are both held mixed.

Stress urinary incontinence

Figures Q.1 to Q.4 show sensitivity, specificity, PPVs and NPVs of history of pure stress UI compared with urodynamic findings of stress UI (urodynamics being the reference standard), with 95% confidence intervals. The median values and ranges of results are shown in Table Q.2.

Figures Q.1 to Q.4 show that there is considerable variation across the studies in sensitivities, specificities, PPVs and NPVs of a history of pure stress UI compared with positive findings of pure stress UI on multichannel cystometry. In general, there is a low level of agreement between the two methods. The median values show that:

- 66% of women who have urodynamic stress incontinence also have a history of pure stress UI
- 83% of women who do not have urodynamic stress incontinence also do not have a history of pure stress UI
- 70% of women who have a history of pure stress UI also have urodynamic stress incontinence
- 69% of women who do not have a history of pure stress UI also do not have urodynamic stress incontinence.

Figure Q.1 Sensitivity of a history versus UD findings of stress UI; studies arranged in ascending order of USI prevalence (%): 34, 40, 44, 46, 51, 52, 53, 54, 58, 61, 63

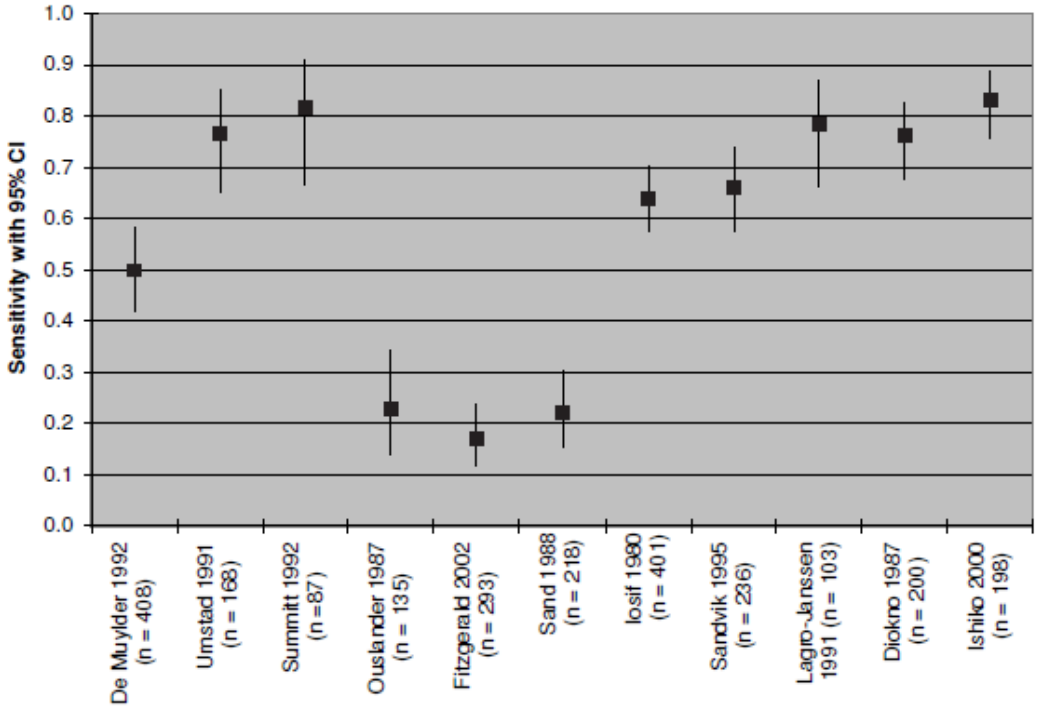


Figure Q.2 Specificity of a history versus UD findings of stress UI; studies arranged in ascending order of USI prevalence (%): 34, 40, 44, 46, 51, 52, 53, 54, 58, 61, 63

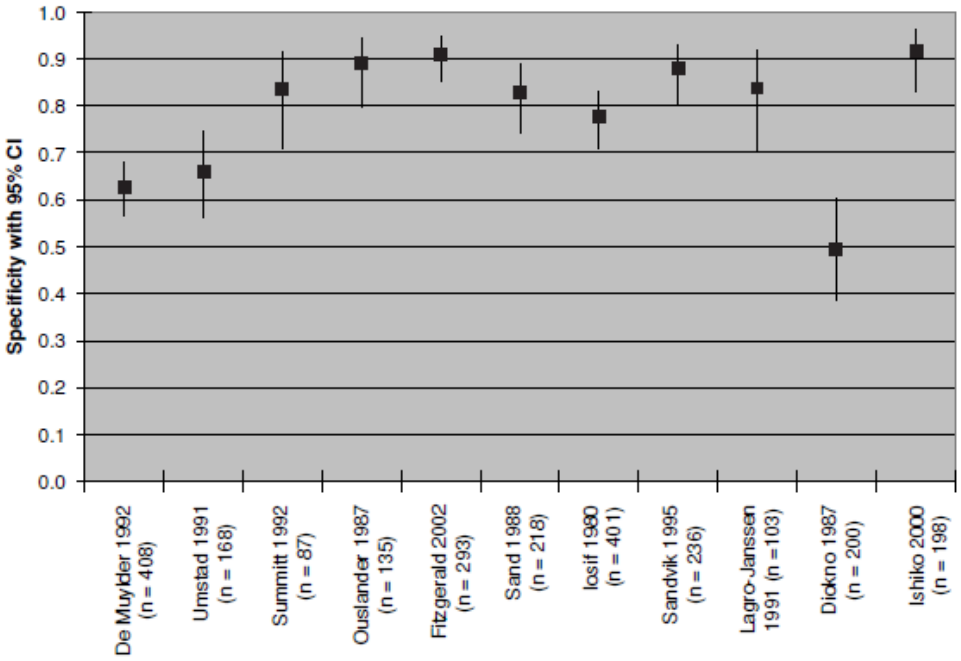


Table Q.2 Diagnostic accuracy data for urinary history of pure stress UI compared with urodynamic findings of stress UI

UI symptom	Sensitivity median (range)	Specificity median (range)	PPV median (range)	NPV median (range)
Stress UI	66% (17–83%)	83% (49–92%)	70% (41–95%)	69% (49–85%)

Figure Q.3 PPV of a history versus UD findings of stress UI; studies arranged in ascending order of USI prevalence (%): 34, 40, 44, 46, 51, 52, 53, 54, 58, 61, 63

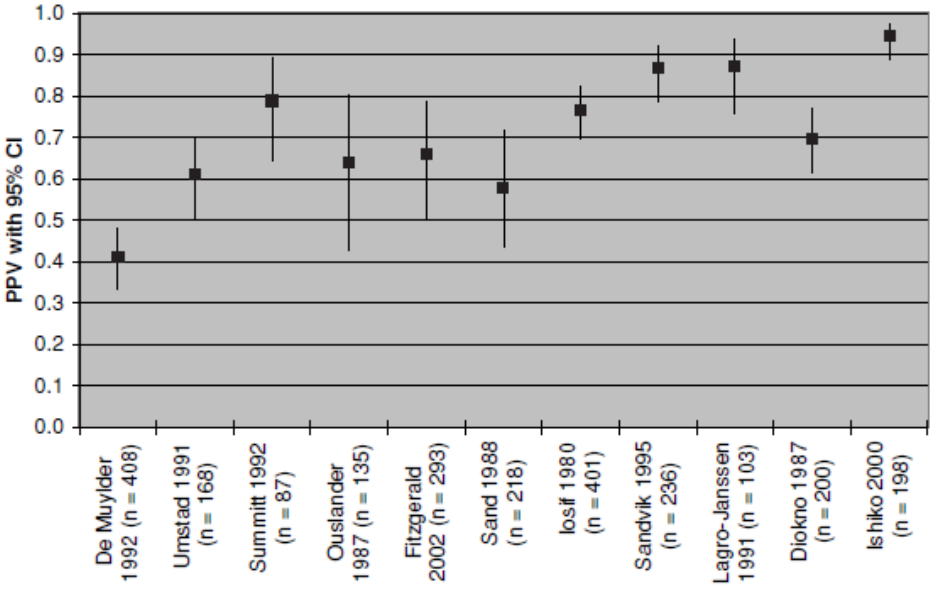
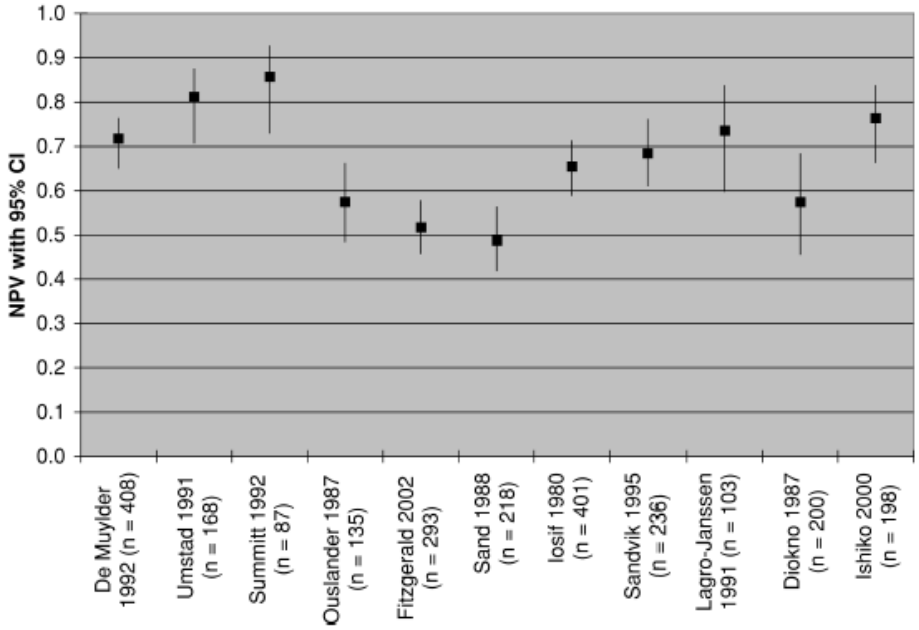


Figure Q.4 NPV of a history versus UD findings of stress UI; studies arranged in ascending order of USI prevalence (%): 34, 40, 44, 46, 51, 52, 53, 54, 58, 61, 63



We considered whether differences in prevalence of urodynamic stress incontinence might explain the variation in the results of individual studies. The studies in Figures Q.1 to Q.4 are arranged in ascending order of prevalence (from 34 to 63%, left to right). Figure Q.3 shows that, as expected, the PPV increases with increasing USI prevalence (i.e. as the proportion of women with urodynamic stress UI in the study increases, the proportion of women who have positive findings from urodynamic studies as well as from history increases). However, NPV does not appear to follow the expected pattern of decreasing values with increasing prevalence. This might be because the sensitivities and specificities of the studies vary greatly, or because the studies vary in other ways. Three studies have a much lower sensitivity than the other eight. The three studies do not appear to be different to the others in any systematic way that would explain this variation.

It is possible that the method used to obtain a history might explain some of the variation between studies. However, the studies provided insufficient detail of the method of obtaining a history to allow this possible association to be explored in a meaningful way, and therefore it is not known how much this may influence the results seen.

The variation between studies might also reflect a lack of blind comparison of the results of history taking and urodynamic testing (again, the studies provide insufficient detail to explore this further), or the fact that urodynamics cannot be regarded as a gold standard. Indeed, there is some suggestion in Figures Q.1 and Q.2 that sensitivity and specificity vary with prevalence, which should not occur using a gold standard that provides a perfect classification of the presence/absence of stress UI.

Mixed urinary incontinence

Figures Q.5 to Q.8 show sensitivity, specificity, PPVs and NPVs of history compared with urodynamic findings of mixed UI (i.e. USI plus DO), with 95% confidence intervals. The median values and ranges of results are shown in Table Q.3.

Figures Q.5, Q.6 and Q.7 show that there is considerable variation across the studies in sensitivities, specificities and PPVs of a history of mixed UI compared with positive findings of USI plus DO on multichannel cystometry. The median values show that:

- 68% of women who have USI plus DO also have a history of mixed UI
- 77% of women who do not have urodynamic stress UI or DO also do not have a history of mixed UI

- 35% of women who have a history of mixed UI also have both USI plus DO.

Figure Q.8 shows that the NPV is more consistent across studies than are the other quantities, i.e. at least 80% (median 90%) of women who do not have a history of mixed UI also do not have USI and DO on multichannel cystometry. Less variation is expected when the agreement between two forms of assessment is close to 100% (or 0%).

As expected, the PPV appears to increase with increasing prevalence of mixed findings of USI plus DO on multichannel cystometry.

The relationship between NPV and specificity is not strong in these studies; this could be because the prevalence of mixed UI varies widely between studies (from 10% to 28%).

Urge urinary incontinence

Figures Q.9 to Q.12 show sensitivity, specificity, PPVs and NPVs of the symptom of pure urge UI compared with urodynamic findings of detrusor overactivity, with 95% confidence intervals. The median values and ranges of results are shown in Table Q.4.

Table Q.3 Diagnostic accuracy data for urinary history of mixed UI compared with urodynamic findings of USI plus DO

UI symptom	Sensitivity median (range)	Specificity median (range)	PPV median (range)	NPV median (range)
Mixed UI	68% (42–85%)	77% (34–89%)	35% (18–70%)	90% (80–97%)

Figure Q.5 Sensitivity of a history of mixed UI versus UD findings of USI plus DO; studies arranged in ascending order of USI plus DO prevalence (%): 10, 14, 17, 17, 18, 19, 21, 21, 24, 25, 28

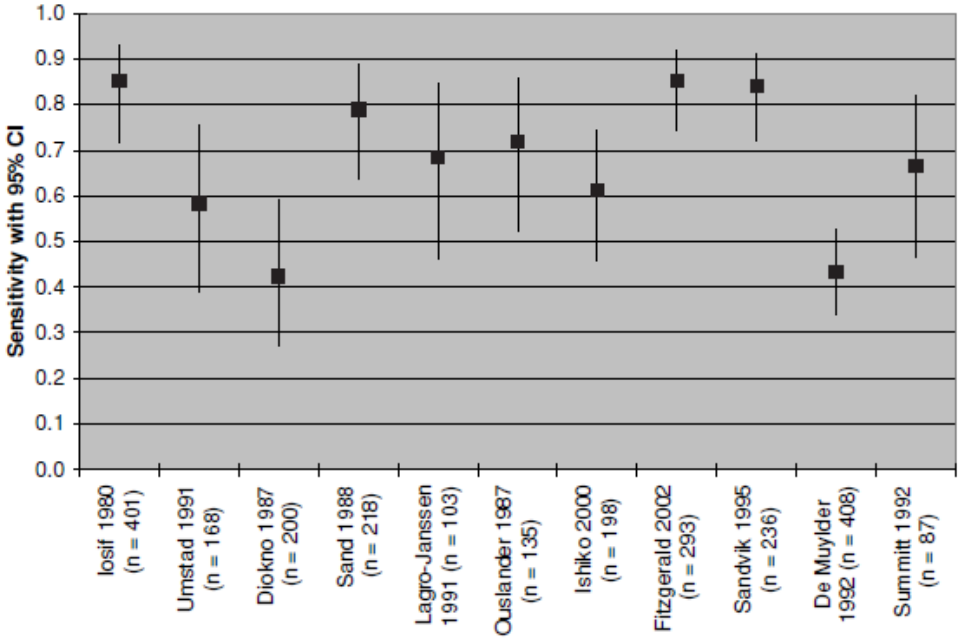


Figure Q.6 Specificity of a history otable Qf mixed UI versus UD findings of USI plus DO; studies arranged in ascending order of USI plus DO prevalence (%): 10, 14, 17, 17, 18, 19, 21, 21, 24, 25, 28

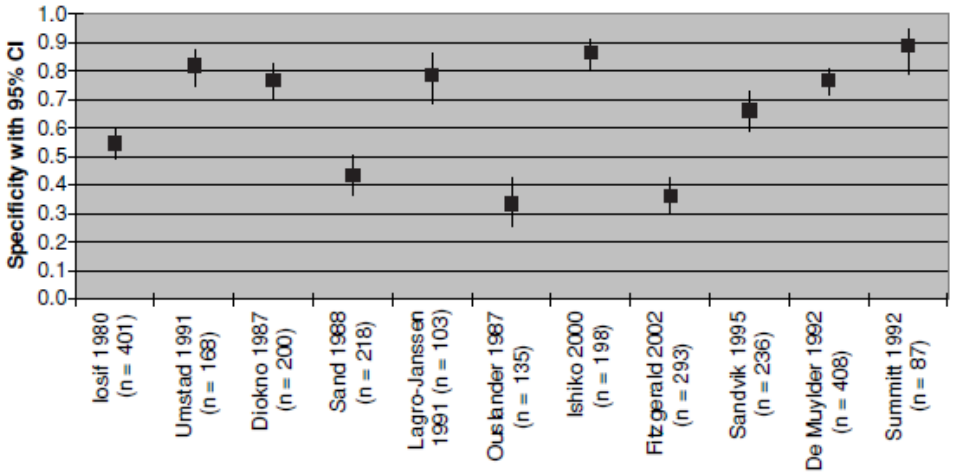


Table Q.4 Diagnostic accuracy data for urinary history of pure urge UI compared with urodynamic findings of detrusor overactivity

UI symptom	Sensitivity median (range)	Specificity median (range)	PPV median (range)	NPV median (range)
Urge UI	45% (14–86%)	96% (81–98%)	73% (25–81%)	91% (79–98%)

Figure Q.7 PPV of a history of mixed UI versus UD findings of USI plus DO; studies arranged in ascending order of USI plus DO prevalence (%): 10, 14, 17, 17, 18, 19, 21, 21, 24, 25, 28

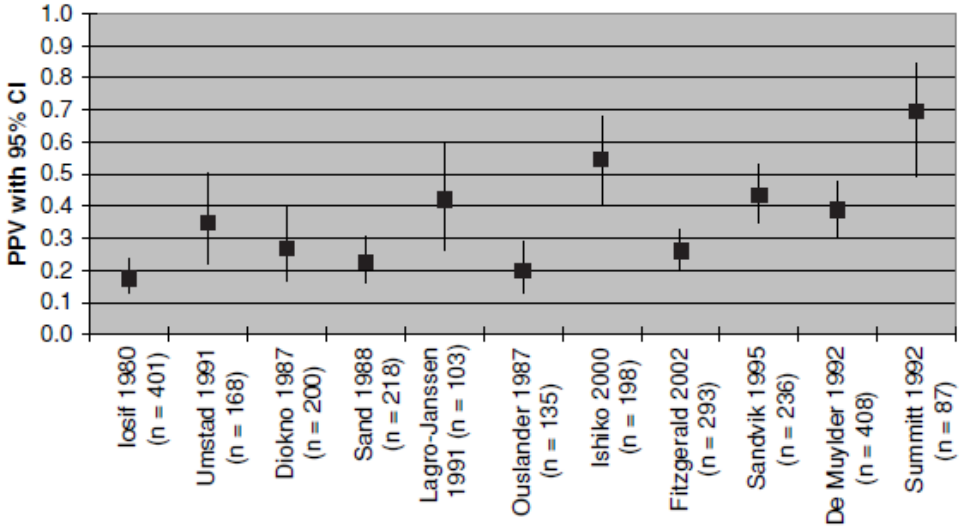
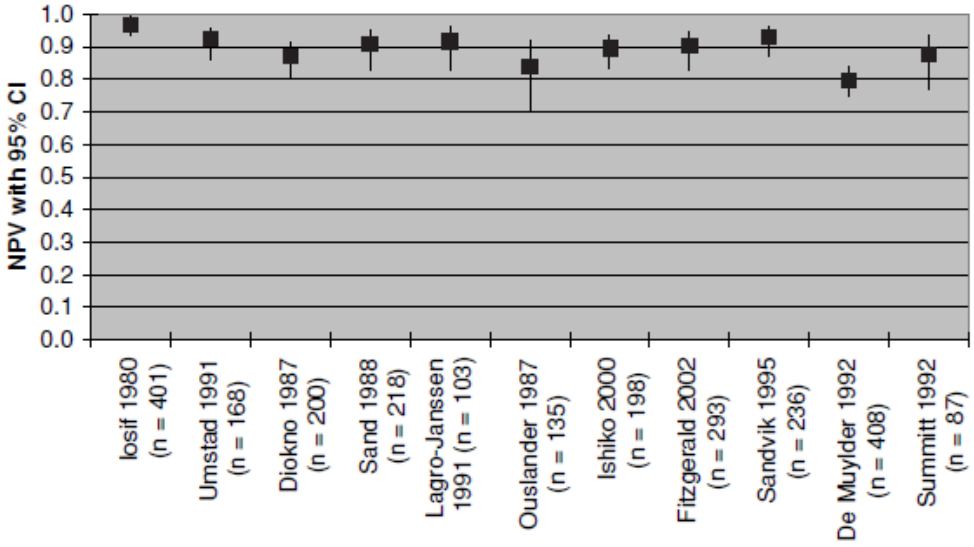


Figure Q.8 NPV of a history of mixed UI versus UD findings of USI plus DO; studies arranged in ascending order of USI plus DO prevalence (%): 10, 14, 17, 17, 18, 19, 21, 21, 24, 25, 28



Figures Q.9 and Q.11 show that there is wide variation in the sensitivities and PPVs of urge UI across the studies. The median values show that:

- 45% of women who have DO also have a history of pure urge UI
- 73% of women who have a history of pure urge UI also have DO.

It is also noted that the relationship between PPV and sensitivity is not strong across these studies and this could be because the prevalence of DO varies from 7% to 32% (median 17%).

Conversely, specificity and NPVs for urge UI are both quite consistent, as shown in Figures Q.10 and Q.12. At least 81% of women (median 96%) who do not have DO also do not have a history of pure urge UI; and at least 79% (median 91%) of women who do not have a history of pure urge UI also do not have DO on multichannel cystometry. In other words, if there is no history of urge UI, the probability of finding DO on urodynamic testing is small. Again, the results of the individual studies are quite consistent as is to be expected when the percentage agreement between two forms of assessment is close to 100%. There is a strong relationship between specificity and NPV in these studies, despite the variability in the prevalence of DO. This might be because the variations in prevalence are compensated by variations in sensitivity.

Figure Q.9 Sensitivity of a history of urge UI versus UD findings of DO; studies arranged in ascending order of DO prevalence (%): 7, 12, 13, 14, 15, 17, 18, 20, 24, 27, 32

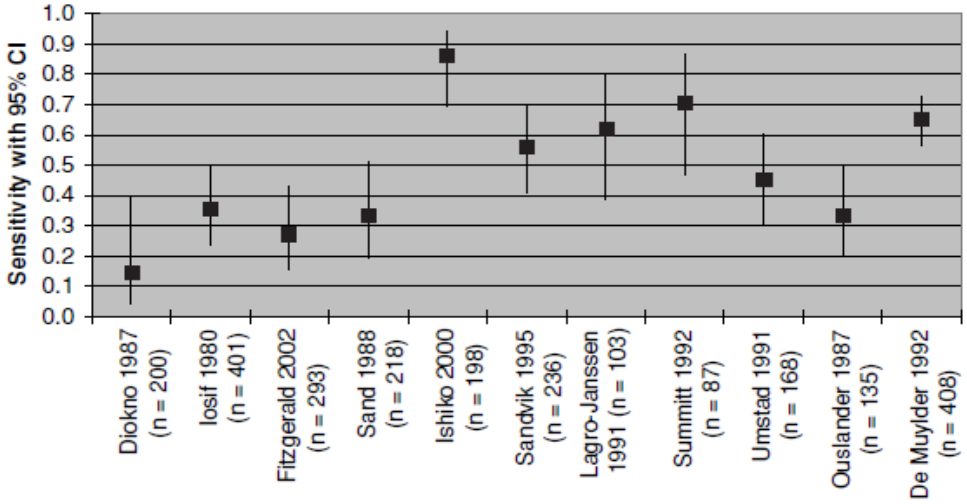


Figure Q.10 Specificity of a history of urge UI versus UD findings of DO; studies arranged in ascending order of DO prevalence (%): 7, 12, 13, 14, 15, 17, 18, 20, 24, 27, 32

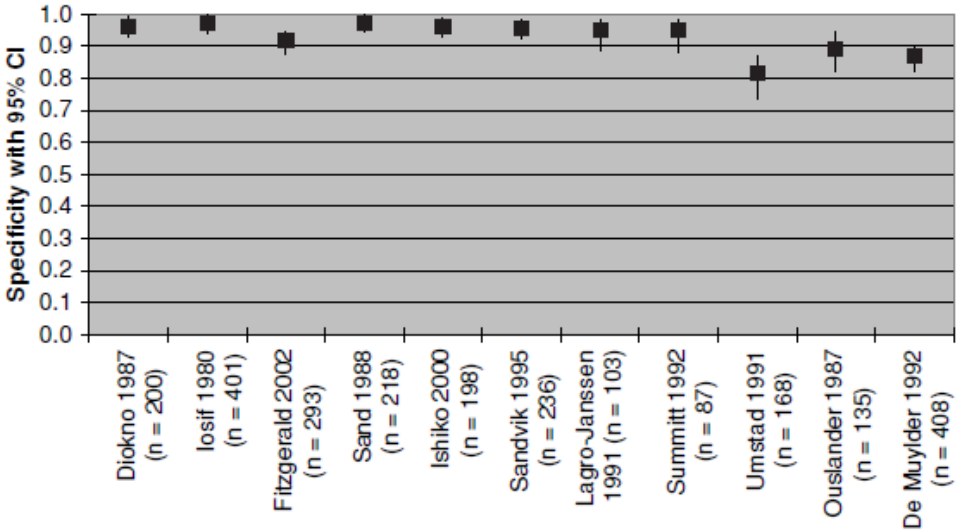


Figure Q.11 PPV of a history of urge UI versus UD findings of DO; studies arranged in ascending order of DO prevalence (%): 7, 12, 13, 14, 15, 17, 18, 20, 24, 27, 32

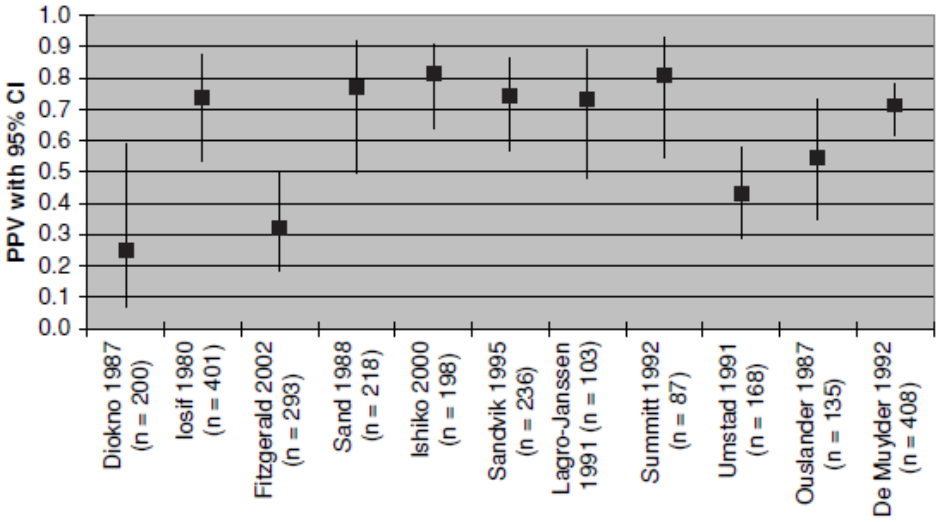
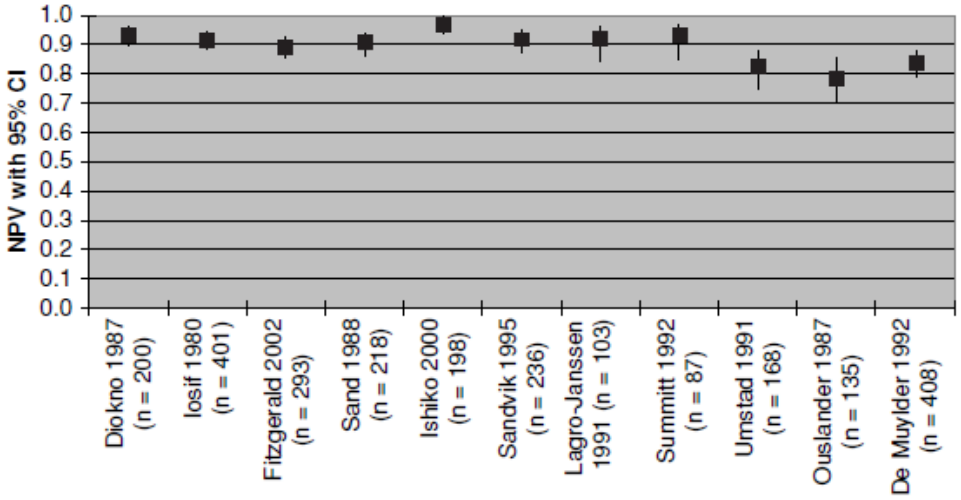


Figure Q.12 NPV of a history of urge UI versus UD findings of DO; studies arranged in ascending order of DO prevalence (%): 7, 12, 13, 14, 15, 17, 18, 20, 24, 27, 32



Other studies

The remaining studies that compared history and urodynamic findings did so in relation to only one or two types of UI. These also showed variability in their results. In two studies that only reported accuracy data for stress and mixed UI, the results were:[61,62]

- sensitivity: 33% and 39% stress UI; 49% and 68% mixed UI
- specificity: 83% and 86% stress UI; 48% and 57% mixed UI
- PPV: 56% PPV: 56% and 74% stress UI; 33% and 53% mixed UI
- NPV: 58% and 66% stress UI; 53% and 80% mixed UI.

In one study that included women with any type of UI but for which only data for stress UI were reported, the sensitivity of history compared with urodynamics was 52%, specificity and PPV were both 85% and NPV was 53%.[70]

In the five studies that investigated how a history of urge UI and/or OAB compared with the urodynamic finding of DO, the results were:[63–67]

- sensitivity: median 40% (range 24–91%)
- specificity: median 86% (range 45–92%)
- PPV: median 54% (range 44–91%)
- NPV: median 68% (range 26–91%).

In five of six studies that investigated how a history of stress UI compared with a urodynamic finding of stress UI, sensitivities of 47–82% and PPVs of 52–100% were reported.[68–72] The remaining study reported sensitivity, specificity, PPV and NPV results using four different urodynamic methods in the assessment of women with urodynamic stress UI (including mixed UI). The ranges of results across the different methods were: sensitivity 49–91%, specificity 98–100%, PPV 82–100% and NPV 44–88%, the highest level of agreement being noted for observed urine loss with cough during multichannel cystometry.[73]

Conclusions

The available studies comparing history of stress, mixed or urge UI with findings of stress UI and/or DO on multichannel cystometry have poor internal and external validity. In addressing the question of whether urodynamic testing gives additional information to that obtained from history alone, with the limitations of the studies in mind, the following conclusions can be drawn:

- If a woman does not report mixed UI (i.e. if she reports pure stress UI or pure urge UI), the probability of finding USI plus DO on cystometry is small (around 10%), therefore urodynamic testing might be said to offer little additional diagnostic value. It is acknowledged that urodynamic investigation is not simply used to distinguish USI and DO, and that further information may be obtained about other elements of lower urinary tract function, for example the voiding pattern.
- If a woman does not report pure urge UI, the probability of finding DO on cystometry is small (again around 10%), therefore urodynamic testing offers little added diagnostic value.

The situation for pure stress UI is less clear-cut. Here 15–51% (median 31%) of women who do not report pure stress UI may nevertheless be found to have USI on cystometry. However, the lack of consistency between the NPVs in the available studies together with the lack of detailed information about the method of obtaining a history and the poor quality of the studies limit the extent to which the evidence would support urodynamic testing for women who do not report stress UI. Furthermore, a limitation of dealing with stress, mixed and urge UI as three separate entities is that the analysis ignores the interdependence between the different diagnoses.

History taking is regarded as the cornerstone of assessment of UI. Current practice is that women with UI are categorised according to their symptoms into those with stress, mixed or urge UI; women with mixed UI are treated according to the symptom they report to be the most troublesome. In the absence of evidence that urodynamic testing improves the outcome of women treated conservatively, and without robust evidence that urodynamic testing provides additional valuable information to the history alone in the initial assessment of women with UI, the GDG concluded that urodynamic testing is not required before initiating conservative treatment.

Appendix R Economic evidence for urodynamics (2006)

R.1 Introduction

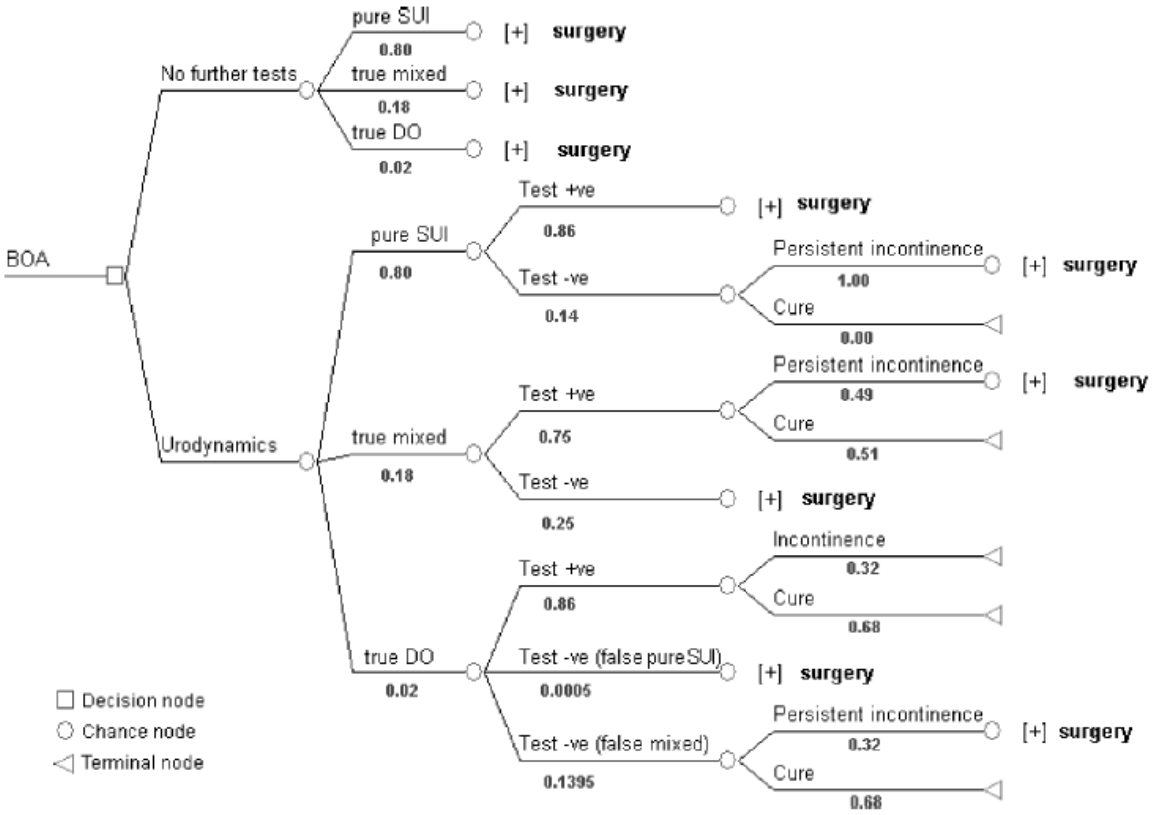
The literature review identified two economic evaluations addressing the use of urodynamics in diagnosing stress UI. One study sought to compare the cost effectiveness of the cough stress test with simple cystometry against multichannel cystometry in a US setting.[928] Sensitivities and specificities for both methods were estimated from the literature, with baseline values derived from the mean of all reported values. The authors chose to use sensitivity as their measure of effectiveness on the grounds that the specificities for both diagnostic tests were close to 100%. With baseline values, the incremental cost effectiveness ratio (ICER) of multichannel urodynamics was calculated as $16,550 per correct diagnosis. Under the most favourable sensitivity analysis for multichannel cystometry, the ICER of multichannel cystometry is given as $1,679. Under some sensitivity analysis scenarios, cough stress test with simple cystometry dominates. The authors conclude that cough stress test with simple cystometrogram is more cost effective than multichannel cystometry. However, this conclusion is not warranted from their results because the value of a correct diagnosis is not considered, i.e. what cost per correct diagnosis would society consider to be good value for money?

The other paper used a decision analytic approach to compare the cost effectiveness of preoperative testing with urodynamics versus no further testing, following a basic office assessment (BOA) diagnosis of pure stress UI within a US setting.[929] Clinical and population parameters for the model were estimated using a literature review together with additional articles referenced in recovered articles. The authors report that costs were considered from a societal perspective, although there is limited detail of the cost analysis and all the costs reported appear to be those that would be incurred by the healthcare provider or payer. With baseline values, the authors find that urodynamics is the most expensive and most effective strategy with an incremental cost per cure of $3,847 when compared with BOA and no further testing. Sensitivity analysis showed that the cost effectiveness result was particularly sensitive to changes in the proportion of the patient population having pure stress incontinence. If 85% or more of the population had pure stress incontinence then no further testing dominated, but the urodynamics strategy dominated when this fell to 79% or below. This makes it difficult to draw conclusions about the cost effectiveness of preoperative urodynamics in a population of women who are likely to have pure stress UI. Furthermore, the authors' conclusion that urodynamics before surgery is not cost effective is not supported, even under baseline assumptions, because the value of a cure or willingness to pay for a cure is not considered.

Using UK cost data, the decision analytic model developed by Weber et al. was used for this guideline to assess the preoperative cost effectiveness of urodynamics in a UK setting.[929] The decision tree was created in Microsoft Excel® but also, for validation purposes, in TreeAge Pro 2006®.

The model focuses on a hypothetical population of incontinent women who have failed conservative treatment and have a presumed diagnosis of pure stress UI. For baseline calculations, it is assumed that 80% of the cohort has pure stress UI, 18% have mixed UI and 2% have DO. It must be remembered that these are not intended as estimates of the prevalence of symptoms or urodynamic abnormalities in the whole population, but estimate the posterior probability after a basic office evaluation which includes detailed history and physical examination, urinalysis, a provocative stress test and measurement of residual urine.[929]

Figure R.1 Preoperative urodynamics decision tree model3



The comparators in the model are no further testing prior to surgery or preoperative urodynamics in order to confirm a diagnosis of pure stress UI, mixed UI or DO. The decision tree (Figure R.1) depicts the treatment pathway of the hypothetical cohort of patients. The pathway starts with the decision whether to undertake urodynamics testing or not, and patient flow from this decision proceeds from left to right with the branches indicating all feasible pathways. The pathway of any particular patient is also determined by chance events and these are represented in the model by chance nodes. Branches that emanate from chance nodes indicate all the possibilities that exist at such a point in the pathway. The outcome of each terminal node (or endpoint) in the tree is either 'cure' of incontinence or failure (persistent incontinence or retention).

In the no further testing arm, all patients are presumed to have pure stress UI and have surgery on that basis. The patient pathways following surgery are shown in the surgery sub-tree (Figure R.2). The top branch of the surgery sub-tree shows that cure rates with primary surgery for patients who have pure stress UI, mixed UI or DO are 86%, 78% or 31%, respectively.[929] For those patients who are not cured, the tree shows that urodynamic testing is used to establish whether there is retention or incontinence. For those with retention, urethrolysis* is performed, which is assumed to cure 72% of patients with retention.

3 This model was developed in a US context. In the UK urethrolysis is rarely undertaken for retention. However, as this only affects a small proportion of the model cohort and the proportion is similar across treatment alternatives this feature of the model has minimal impact on model output.

In patients who have failed initial surgery but who are not diagnosed with retention, then the urodynamics is used to determine whether the underlying problem is recurrent hypermobility, ISD or DO. For patients with recurrent hypermobility, repeat surgery is undertaken, which is assumed to cure 86% of patients, with the remainder having treatment failure and continuing incontinence (11.5%) or retention (2.5%). Patients with ISD receive a collagen injection, which has a cure rate of 82%, with 'failures' having persistent incontinence. Finally, patients with DO are given medical treatment, which cures 68%, with the remainder having persistent incontinence.

Figure D.2 Surgery sub-tree

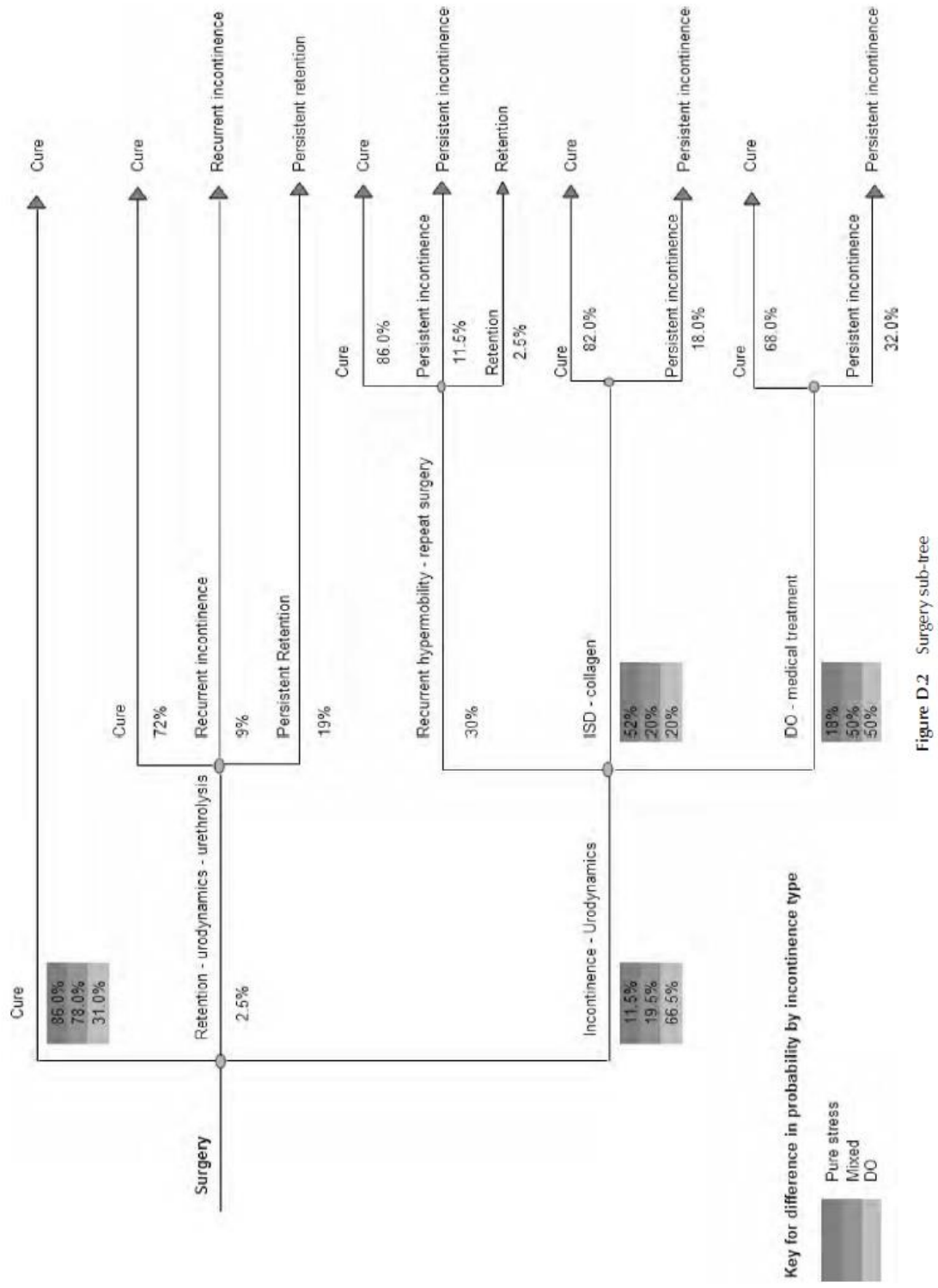


Figure D.2 Surgery sub-tree

For patients in the urodynamics arm, the patient pathways are as described above for the surgery sub-tree if the diagnosis of pure stress UI is made. However, this will still include some false positives, as urodynamics does not have a specificity of 100%, which will affect the cure rate from initial surgery, collagen and medical treatment. For patients with a urodynamic finding of mixed UI or DO, medical treatment will be initiated. If medical treatment fails to cure patients, and the diagnosis was mixed UI, then surgery will be performed with the pathways as described above for the surgery sub-tree.

The cost parameters used in the model are shown in Table R.1.

The baseline values for clinical and population parameters are taken from Weber et al.[929] and are shown in Table R.2.

Table R.1 Cost parameters and source of data

Resource item	Costs	Source of UK data
Urodynamic testing	£140	2003 NHS Reference Cost – TOP HRG (M07op)
Initial TVT	£1,014	TVT HTA
Repeat TVT	£1,014	TVT HTA
Urethrolysis	£2,865	2004 NHS Reference Cost
Collagen injection	£1,305	TVT HTA (excluding theatre costs)
Medical treatment for DO	£36	BNF 50
Care related to incontinence for	£150	hcna.radcliffe-oxford.com/continen.htm
Care related to urinary retention 1 year	£150	hcna.radcliffe-oxford.com/continen.htm

Urodynamic testing – The baseline estimate is the mean unit cost taken from the 2003 NHS Reference Cost for urodynamic investigation (HRG code M07op). The interquartile range for the unit costs was £94 to £163. A cost for urodynamic investigation was not included in the 2004 NHS Reference Costs.

Initial TVT – The baseline estimate is taken from an HTA of the clinical and cost effectiveness of TVT for the treatment of stress UI.716

Repeat TVT – The baseline estimate is the same as for the initial surgery. In Weber's model, repeat surgery was given a unit cost 3.4% greater than for initial surgery.

Urethrolysis – On the advice of the GDG, the baseline estimate was taken from the 2004 NHS Reference Cost mean unit cost for urethra major open procedures (HRG code L33). The interquartile range of unit costs given for this category of procedures is £1,205 to £2,757.

Collagen injection – The default value was taken from the HTA on TVT.716 The authors note that this is likely to be an underestimate because it does not include theatre costs.

Medical treatment for detrusor overactivity – The baseline unit cost is based on a year's treatment with oxybutynin hydrochloride (non-proprietary) 5 mg twice daily (84-tab pack = £4.14).

Care related to incontinence for 1 year – The baseline estimates are much lower than those cited in the Weber paper but NICE requires that costs only be measured from the perspective of the NHS and personal social services. The source of the data was a continence healthcare needs assessment chapter available on the internet (hcna.radcliffe-oxford.com/continen.htm). This chapter refers to a study that reported the NHS- and patient-borne costs for a 3 month period, which was £37 (£37 × 4 = £148) in 1995 prices.930 The simplifying assumption made is that removing patient-borne costs from this estimate, but adjusting for inflation, would more or less cancel each other out.

Care related to retention for 1 year – For baseline it was assumed that these would be the same as for incontinence. In Weber's paper, the costs were of a similar magnitude if slightly lower for retention.

Table R.2 Baseline values for clinical and population parameters

Parameter	Value
Pure stress UI in women with stress symptoms and positive cough stress test	80.00%
Pure mixed UI in women with stress symptoms and positive cough stress test	18.00%
Urodynamically confirmed DO in women with stress symptoms and positive cough stress test	2.00%
Urodynamic test positive for USI when USI is true condition (sensitivity or true +ve for USI)	86.00%
Urodynamic test positive for mixed incontinence when USI is true condition (false +ve for DO)	14.00%
Urodynamic test positive for mixed incontinence when mixed incontinence is true condition (true +ve for mixed)	75.00%
Urodynamic test positive for USI when mixed incontinence is true condition (false −ve for DO)	25.00%
Urodynamic test positive for DO when DO is true condition (sensitivity or true +ve for DO)	86.00%
Urodynamic test positive for USI when DO is true condition (false +ve for USI)	0.05%
Urodynamic test positive for mixed incontinence when DO is true condition (false +ve for mixed)	13.95%
Cure rate after initial retropubic bladder suspension for USI	86.00%
Cure rate after repeat retropubic bladder suspension for urethral hypermobility and USI	86.00%
Cure rate after initial retropubic bladder suspension for DO	31.00%
Cure rate after initial retropubic bladder suspension for mixed incontinence	78.00%
Cure rate after collagen injection for ISD	82.00%
Cure rate after urethrolysis for retention	72.00%
Cure rate for medical treatment for DO	68.00%
Cure rate for medical treatment for mixed incontinence	51.00%
Cure rate for medical treatment for USI	0.00%
Rate of retention after initial or repeat retropubic bladder suspension	2.50%
Rate of recurrent incontinence after urethrolysis	9.00%
Rate of persistent retention after urethrolysis	19.00%
Recurrent urethral hypermobility as cause of recurrent incontinence after retropubic bladder suspension for USI, DO or mixed incontinence	30.00%
ISD as aetiology of recurrent incontinence after retropubic bladder suspension for USI	52.00%
DO as aetiology of recurrent incontinence after retropubic bladder suspension for USI	18.00%
ISD as aetiology of recurrent incontinence after retropubic bladder suspension for DO or mixed incontinence	20.00%
DO as aetiology of recurrent incontinence after retropubic bladder suspension for DO or mixed incontinence	50.00%

Results

The results with the baseline parameter values are shown in Table R.3.

This means that for every 10 000 patients there would be approximately an additional 13 ‘cures’ using urodynamics, compared with no further testing, and that these would be achieved at an approximate additional cost of £350,000, or £26,125 per additional cure.

However, without knowing how much a ‘cure’ is valued, it is not possible to say whether the additional urodynamic testing represents a cost effective use of resources. If we assume a willingness to pay

threshold of £20,000 per QALY[36] then each cure would have to generate 1.3 QALYs in order for urodynamics to be considered cost effective with baseline values.

Table R.3 Results with baseline parameter values

Testing strategy	Cost	Cure rate	Incremental cost	Incremental cure	ICER
Urodynamics	£1,268	96.5%	£35	0.13%	£26,125

Sensitivity analysis

A number of one-way sensitivity analyses were undertaken to assess how the model's results were affected by parameter uncertainty, and those having the greatest impact on the model output are shown below.

Cost parameters

Cost parameters do not affect the relative cure rates of the two alternatives. As the cure rate is fractionally higher for urodynamics with baseline values, this result will be unaffected with one way sensitivity analysis on cost parameters. Therefore, urodynamics is always the more effective strategy for this subset of the sensitivity analysis.

Table R.4

Urodynamics	ICER (cost per cure)	Comment
£100	Urodynamics dominates	
£104	Urodynamics dominates	Threshold for dominance
£125	£15,162	Urodynamics more effective
£150	£33,434	Urodynamics more effective
£175	£51,706	Urodynamics more effective

Table R.5

TVT cost (initial and repeat)	ICER (cost per cure)	Comment
£800	£41,543	Urodynamics more effective
£1,000	£27,134	Urodynamics more effective
£1,200	£12,724	Urodynamics more effective
£1,377	Urodynamics dominates	Threshold for dominance
£1,400	Urodynamics dominates	

Population parameters

While this is referred to as one-way sensitivity analysis, it should be noted that the total population must add up to 100% and that this is not possible by varying just one of the population parameters. Therefore, one of the other population parameters is simultaneously adjusted to maintain the overall population at 100%.

Table R.6

Urodynamic stress UI proportion (varying mixed UI)	ICER (cost per cure)	Comment
72%	Urodynamics dominates	
74%	£2,988	Urodynamics more effective
76%	£7,764	Urodynamics more effective

Urodynamic stress UI proportion (varying mixed UI)	ICER (cost per cure)	Comment
78%	£14,787	Urodynamics more effective
80%	£26,125	Urodynamics more effective
82%	£47,525	Urodynamics more effective
84%	£103,061	Urodynamics more effective
86%	£596,173	Urodynamics more effective
87%	No further testing dominates	

Table R.7

DO proportion (varying urodynamic stress UI)	ICER (cost per cure)	Comment
0%	£17,335	Urodynamics more effective
1%	£19,669	Urodynamics more effective
2%	£26,125	Urodynamics more effective
3%	£130,016	Urodynamics more effective
4%	No further testing dominates	
5%	£4,007	No further testing more effective
10%	£10,086	No further testing more effective
20%	£11,432	No further testing more effective

Table R.8

DO proportion (varying mixed UI)	ICER (cost per cure)	Comment
0%	£13,391	Urodynamics more effective
1%	£16,517	Urodynamics more effective
2%	£26,125	Urodynamics more effective
3%	No further testing dominates	
4%	No further testing dominates	
5%	No further testing dominates	
6%	£1,249	No further testing more effective
7%	£2,736	No further testing more effective
10%	£4,660	No further testing more effective

Clinical parameters

Table R.9

Cure rate after TVT for urodynamic stress UI (varying retention)	ICER (cost per cure)	Comment
60%	Urodynamics dominates	
68%	Urodynamics dominates	Threshold for dominance
70%	£1,320	Urodynamics more effective
80%	£14,608	Urodynamics more effective

Table R.10

Cure rate after repeat TVT for urodynamic stress UI (varying retention)	ICER (cost per cure)	Comment
60%	Urodynamics dominates	
68%	Urodynamics dominates	Threshold for dominance
70%	£980	Urodynamics more effective
80%	£11,733	Urodynamics more effective

Table R.11

Cure rate after TVT for mixed (varying incontinence)	ICER (cost per cure)	Comment
40%	£1,969	Urodynamics more effective
60%	£5,919	Urodynamics more effective
80%	£35,715	Urodynamics more effective
87%	No further testing dominates Threshold for dominance	
90%	No further testing dominates	

Table R.12

Cure rate for medical treatment of DO	ICER (cost per cure)	Comment
40%	No further testing dominates	Threshold for dominance
50%	£75,577	Urodynamics more effective
60%	£36,770	Urodynamics more effective
70%	£24,370	Urodynamics more effective
80%	£18,270	Urodynamics more effective
90%	£14,643	Urodynamics more effective

Table R.13

Cure rate for medical treatment for mixed UI	ICER (cost per cure)	Comment
30%	No further testing dominates	
32%	No further testing dominates	Threshold for dominance
40%	£99,042	Urodynamics more effective
50%	£28,953	Urodynamics more effective
60%	£9,952	Urodynamics more effective
70%	£1,102	Urodynamics more effective
72%	Urodynamics dominates	Threshold for dominance
80%	Urodynamics dominates	

Discussion

In this model, the use of urodynamics can save unnecessary surgery in a population that would all have surgery in its absence. This can produce cost savings, which to a greater or lesser extent offset

the additional costs of testing. Also, the way treatment pathways are defined in the model, most patients will ultimately get surgery if they fail on medical treatment.

The results with the baseline values suggest that the costs and effectiveness of both of the testing strategies is very similar. This result is unpicked in order to gain a better understanding of the model and its workings.

Patients with pure stress incontinence

The cure rate (effectiveness) is the same irrespective of the testing regimen (no further testing versus urodynamics) as all patients ultimately get surgery. This is automatically true with no further testing, where all patients receive surgery. However, with urodynamics, even those patients with a false negative ultimately get surgery as it is assumed that the cure rate for medical treatment in such patients is 0%. Not surprisingly, the urodynamic testing arm is more costly for such patients – no surgery costs are saved and there are additional costs of urodynamic testing and medical treatment for false negative patients.

Conclusions: effectiveness same, costs lower under no further testing.

Patients with true mixed urinary incontinence

The cure rate is higher with urodynamic testing. Patients who have a positive diagnosis for mixed UI are treated with medical treatment, which has a cure rate of 51%. Patients with false negative results for mixed UI on urodynamics or those who fail medical treatment all proceed to surgery. The failure rate with surgery is the same as in the no further testing arm. However, because this represents just a subset of the total (the rest being cured by medical treatment), the overall failure rate is reduced. The urodynamics arm is also cheaper for these patients because the additional testing costs are more than offset by reduced surgery arising from the cures achieved by medical treatment.

Conclusions: urodynamics more effective, costs higher under no further testing

Patients with true detrusor overactivity

For these patients, the cure rate is higher with no further testing. This perhaps rather counterintuitive result arises because surgery/repeat surgery produces a higher cure rate than medical treatment (83% versus 68%). Of course, the subset of patients who have a false diagnosis of mixed UI will go on to surgery but the 83% cure rate in these patients applies to only about 4% of all true DO patients. However, the costs in the no further testing group are higher because urodynamics saves a lot of unnecessary surgery.

Conclusions: no further testing more effective, cost higher under no further testing.

The above shows that the effectiveness of each strategy varies according to the patient's true UI status. Similarly, neither testing strategy is cheaper for all incontinence types. Therefore, the population characteristics are likely to be important in determining the relative cost effectiveness of the strategies given the other underlying assumptions in the model. This is borne out in the sensitivity analysis which shows that urodynamics dominates when the proportion with true USI is 72% or less, but that no further testing dominates when the proportion with USI is 87% or more.

The baseline results show that the ICER is £26,125 per cure. This begs the question as to what would be considered a cost effective cost per cure for the NHS.

In order to estimate an approximate figure for this, the following assumptions were made:

1 year of cure represents a QALY gain = 0.05[931]

Cure lasts 15 years with no relapse

Discount rate = 3.5%[4]

QALY gain per cured patient = $\sum_{i=1}^{15} 0.05/1.035^{i-1} = 0.60$

Therefore, for a cost effectiveness threshold of £20,000 per QALY we would be willing to pay in the order of £12,000 per cure. For the baseline values this would suggest that urodynamics is not cost effective, with a cost per cure of £26,125. However, this may be an overestimate of the cost per cure for the model's default parameters, as it does not take into account 'downstream' savings from reduced continence care in cure savings. If we assume that there is a cost saving of £150 per year of cure, then the net present value of these 'downstream' savings for each cured patient is as follows:

Net present value of savings for cured patient[5] = $\sum_{i=1}^{14} £150/1.035^{i} = £1,638$

So for 10,000 patients:

Incremental cure = 13

→ 13 × 0.6 = 7.8 QALYs

Incremental cost = £350,000 – (13 × £1,638) = £328,000

ICER = £25,000 per cure *or* £42,000 per QALY

Using the default values, the model suggests that preoperative urodynamic testing would not be considered cost effective. Sensitivity analysis shows that cost effectiveness results are extremely sensitive to various model parameters, particularly the proportion of patients with USI. For a cost effectiveness threshold of £20,000 per QALY we would be willing to pay in the order of £12,000 per cure. For the baseline values this would suggest that urodynamics is not cost effective with a cost per cure of £26,125, but that it would be if the proportion with true stress UI was 77.3%.

[4] This is the discount rate recommended in the NICE technical manual for costs and benefits.[36] 'Discounting' is a technique which is used to convert cost or effects that occur in the future into a net present value, so that interventions with differential timings of costs and consequences can be compared on an equivalent basis. This is necessary because society exhibits 'time preference', preferring to receive goods and services sooner rather than later and to defer costs to future generations. The concept of 'time preference' could be considered to be embodied in the proverb that 'a bird in the hand is worth two in the bush'.

[5] The first year saving is captured in the model.

Appendix S Costing first-line conservative treatments for urinary incontinence (2006)

In costing potential first-line conservative treatments, it is necessary to focus solely on the resources associated with those treatments considered by the GDG. This is not to say that assessment and treatment should not be offered during the same session but that those resources devoted to determining treatment option or the need for a referral should not be considered as part of the cost of providing treatment.

Considerable heterogeneity exists within many of the conservative treatments for UI. As far as possible, the cost estimates presented here are based on 'standard' or 'typical' treatment (as informed by expert opinion on the GDG) but in practice such a standard may not exist. Therefore, the actual costs of particular conservative treatments will vary according to the actual practice followed.

Labour costs

Labour costs can be considered a *variable cost* of producing a given treatment. This means that for each additional patient treated, there is a demand on staff time and therefore labour costs vary with the quantity of treatment supplied.

For the purposes of this costing, labour costs are based on *Unit Costs of Health and Social Care 2004.*[932] This provides a unit cost (cost per hour, cost per consultation, etc.) for a range of professional staff working in a health- or social care setting. As far as possible, the unit costs are based on the *long run opportunity costs* of employing an additional member of staff. Therefore, in addition to wages/salary the unit costs also include salary oncosts, qualifications and continuing training. The calculations also make an allowance for the impact that holidays, sickness and training days have on the actual hours worked.

Importantly for the costings undertaken here, they also incorporate the *direct overheads* associated with delivering health care through professional and *capital costs*. Direct overheads, includes those activities such as clerical support and administration which relate directly to the provision of a particular service or treatment. Capital costs relate to the costs of building and land but for hospital-based staff, at least, exclude equipment.

Consumable costs

These are also *variable costs* and relate to resources that are used up in the provision of a service or treatment. It cannot be reused. Again, these costs vary with the quantity of treatment actually provided.

Equipment (capital) costs

In an economic evaluation, capital costs (which include equipment, buildings and land) should not be ignored. After all, buying medical equipment carries an opportunity cost. That said, these costs differ from operating costs such as labour and consumables in certain respects. The purchase of equipment requires an upfront payment (or investment) before treatment can begin. This payment is a fixed cost

and does not vary with the quantity of treatment provided. This capital can then often be used over a number of years before it needs to be replaced.

Capital costs have two facets:

- Opportunity cost – the money spent on the equipment could have been invested in some other venture yielding positive benefits. This is calculated by applying an interest rate to the sum invested in the equipment.
- Depreciation cost – the equipment has a certain lifespan and depreciates over time. Eventually, the equipment has to be replaced.

In economic evaluation, the usual practice is to annuitise the initial capital outlay over the expected life of the equipment. This gives an 'equivalent annual cost', which can then be divided by the number of patients treated annually to assign a unit cost of using that equipment. Calculating the equivalent annual cost means making an allowance for the differential timing of costs, which involves *discounting*.

The formula for calculating the equivalent annual cost is given below:

$E = (K - [S \div \{1 + r\}^n]) \div A(n, r)$

where:

E = equivalent annual cost

K = purchase price of equipment

S = resale value

r = discount (interest rate)

n = equipment lifespan

$A(n, r)$ = annuity factor[6](n years at interest rate r)

Pelvic floor muscle training

Description of treatment and assumptions

It is difficult to define a 'standard' or 'typical' pelvic floor muscle training (PFMT) session and therefore costs will vary according to the actual practices employed.

- Costings are based on treatment being undertaken by a senior 1 grade women's health physiotherapist[7] in a hospital physiotherapy department.
- There are a total of six sessions with the therapist[8]
- The initial session lasts 1 hour; subsequent sessions last half an hour.
- Consumables at the initial session include gloves, single-use KY Jelly, wipes (×2), paper towels (×4).
- Consumables at subsequent sessions include gloves, wipes (×2), paper towels (×4).
- Additional consumables may include exercise diaries and advice leaflets (often provided free by companies) but these are negligible and not included.

Labour costs

Contact time with patient: (1 × 1) + (5 × 0.5) = 3.5 hours

Unit cost: £37 per hour

Labour cost: £37 × 3.5 = £129.50

6 Converts a present value into an annuity, a series of equal annual payments.
7 Remuneration for a continence nurse specialist grade f–g/band 6–7 is similar.
8 Estimates from GDG members that four to eight sessions are typically offered.

Consumables

Table S.1

Item	Quantity	Unit cost	Cost
Gloves	6	£0.02	£0.11
KY Jelly	1	£0.80	£0.80
Couch roll	6	£0.04	£0.22
Paper towels	24	Less than £0.01	£0.07
Wipes	12	£0.03	£0.30
Total			**£1.50**

Total cost for bladder training: £94

Pelvic floor muscle training + biofeedback

Description of treatment and assumptions

Not only is it difficult to define a ‘standard’ for PFMT but biofeedback can also take many different forms. Costs will therefore vary according to actual practice and biofeedback equipment used:

- Number of sessions and duration is typically the same as for 'ordinary' PFMT. Therefore, costs of PFMT + biofeedback have been estimated by adding the costs associated with biofeedback to PFMT alone (see above).
- Biofeedback is undertaken using a Verity NeuroTracTM Simplex (hand-held single-channel EMG unit), a Neen Educator R _ and a Neen Periform vaginal probe.
- It is assumed that the NeuroTrac device is loaned to patients for home use for 3 months and that it has a lifespan of 5 years (i.e. the cost of equipment is spread over 20 patients).
- Educators and probes are for single-patient use and are treated as consumable costs.

PFMT costs: £131

Additional biofeedback costs

Consumables

Table S.2

Item	Quantity	Unit cost	Cost
Neen Educator	1	19.50	19.50
Neen Periform	1	£10.25	£10.25
Total			**£29.75**

Equipment

Table S.3

Item	Cost	Equivalent annual cost	Cost/patient
Verity NeuroTrac Simplex	£99	£19.84	£4.96

Cones

Description of treatment and assumptions

Treatment is often not provided by the NHS, and women will often buy cones over the counter after GP advice and self-treat. An estimate is provided here of the cost to the NHS of providing this as a first-line treatment, including the cost of cones.

- It is assumed that the labour costs are one-third of those for PFMT9
- Consumables are cones and KY Jelly.

Labour costs

1/3 × £129.50 = £43[933]

Table S.4

Item	Quantity	Unit cost	Cost
Neen Educator	1	19.50	19.50
Neen Periform	1	£10.25	£10.25
Total			**£29.75**

Total cost for bladder training: £94

Electrical stimulation

Description of treatment and assumptions

- Initial 1 hour appointment with senior 1 grade women's health physiotherapist in a hospital physiotherapy department to determine appropriate programme.
- Patient is loaned a neuromuscular stimulator for 3 months (Neen 'Peri-calm').
- Patient has two follow-up appointments10, lasting 30 minutes.
- It is assumed that the Neen Pericalm device is loaned to patients for home use for 3 months and that it has a lifespan of 5 years (i.e. the cost of equipment is spread over 20 patients).
- A Neen Periform vaginal electrode is used (×1).
- Other consumables include gloves (×3), KY Jelly (×3), couch roll (×3), wipes (×6) and paper towels (×12).

Labour costs

Contact time with patient: (1 x 1) + (2 × 0.5) = 2 hours

Unit cost: £37 per hour

Labour cost: £37 × 2 = £74.00

9 Teaching time is one third of that for PFMT; see link. [933]
10 Again, actual practice on follow-up may vary.

Consumables

Table S.5

Item	Quantity	Unit cost	Cost
Gloves	3	£0.02	£0.06
KY Jelly	3	£0.80	£2.40
Couch roll	3	£0.04	£0.11
Paper towels	12	Less than £0.01	£0.04
Wipes	6	£0.03	£0.15
Neen Periform	1	£10.25	£10.25
Total			**£13.01**

Equipment

Table S.6

Item	Cost	Equivalent annual cost	Cost/patient
Neen Pericalm	£83.89	£19.84	£4.20

Total cost for bladder training: £94

Electrical stimulation (clinic based)

Description of treatment and assumptions

- Initial 1 hour appointment with senior 1 grade women's health physiotherapist in a hospital physiotherapy department to determine appropriate programme.
- Patient has twelve follow-up appointments11, lasting 30 minutes.
- A Neen Periform vaginal electrode is used (×1).
- Other consumables include gloves (×13), KY Jelly (×13), couch roll (×13), wipes (×26) and paper towels (×52).
- In addition it was assumed that the following clinic equipment was used: Genesis Medical Unomax Data Reader.
- It was assumed that these equipment items would each have a lifespan of 5 years and be used on 200 patients per year.

Labour costs

Contact time with patient: (1 × 1) + (12 × 0.5) = 7 hours

Unit cost: £37 per hour

Labour cost: £37 × 7 = £259

11 Again actual practice on follow up may vary

Table S.7

Item	Quantity	Unit cost	Cost
KY Jelly	13	£0.80	£10.38
Gloves	13	£0.02	£0.24
Couch roll	13	£0.04	£0.47
Paper towels	52	£0.00	£0.16
Wipes	26	£0.03	£0.65
Neen Periform	1	£10.25	£10.25
Total			£22.15

Equipment

Table S.8

Item	Cost	Equivalent annual cost	Cost/patient
Genesis Medical Nomax 2	£220	£41.29	£0.21
Data Reader	£285	£53.49	£0.27

Total cost for bladder training: £94

Bladder training

Description of treatment and assumptions

- Costings are based on treatment being undertaken by a senior 1 grade women's health physiotherapist* in a hospital physiotherapy department.
- Patients are seen five times over a 4 month period.
- Initial appointment is 1 hour, follow-up sessions last 15–30 minutes.
- Bladder/baseline charts are normally provided free by pharmaceutical companies.
- Other consumables include gloves (×5), KY Jelly (×1), couch roll (×5), assessment forms (×1), wipes (×10) and paper towels (×20).

Labour costs

Contact time with patient: (1 × 1) + (4 × 0.375) = 2.5 hours

Unit cost: £37 per hour

Labour cost: £37 × 2.5 = £92.50

Consumables

Table S.9

Item	Quantity	Unit cost	Cost
Gloves	5	£0.02	£0.09
KY Jelly	1	£0.80	£0.80
Couch roll	5	£0.04	£0.18
Paper towels	20	Less than £0.01	£0.06
Wipes	10	£0.03	£0.25
Assessment forms	1	£0.41	£0.41
Total			**£1.50**

Total cost for bladder training: £94

Drugs

Description of treatment and assumptions

- Assumes one review consultation with GP.
- The duration of GP consultations is 9.36 minutes (GMP workload survey).
- Drug costs are for 52 weeks.

Labour costs

Contact time with patient: 0.156 hours

Unit cost: £135 per hour

Labour cost: £135 × 0.156 = £21

Drug costs (taken from BNF 50, September 2005)

Table S.10

Drug	Dose	Daily frequency	Cost per pack (£)	Pack size	Cost per day (£)	Cost for 12 weeks (£)	Cost for 1 year (£)	Cost for 1 year incl. GP review (£)
Duloxetine	40 mg	2	30.80	56	1.10	92	402	423
Flavoxate	200 mg	3	11.87	90	0.40	33	144	165
Oxybutynin	5 mg	2	4.14	84	0.10	8	36	57
ER oxybutynin	10 mg	1	24.68	30	0.82	69	300	321
Oxybutynin patches	3.9 mg	0.29	27.20	8	0.97	82	355	376
Propiverine	15 mg	3	24.45	56	1.31	110	478	499
Solifenacin	5 mg	1	27.62	30	0.92	77	336	357
Solifenacin	10 mg	1	35.91	30	1.20	101	437	458
Tolterodine	2 mg	2	30.56	56	1.09	92	398	419
ER tolterodine	4 mg	1	29.03	28	1.04	87	378	399
Trospium	20 mg	2	26.00	60	0.87	73	316	337

Various conservative treatments combined

PFMT + duloxetine

Description of treatment and assumptions

- As for PFMT and drug therapy alone, except it is assumed that drug review can be part of a PFMT session with no time implication. The cost of this multicomponent treatment is therefore less than the sum of its parts.

Costs

PFMT cost: £131

Duloxetine cost: £423

Less GP review of medication: −£21

Total cost: £533

Lifestyle and physical therapy

Description of treatment and assumptions

- It is assumed that the lifestyle advice is given by the therapist (senior 1 grade women's health physiotherapist or continence nurse specialist).
- Physical therapy is as described previously but with behavioural advice (fluid intake, BMI, constipation, smoking, etc.) incorporated into the first session and subsequent 1/2 hour sessions when necessary - this is assumed to add 15 minutes to contact time between patient and therapist.

The additional cost of adding lifestyle advice to physical therapy is the labour cost of that advice.

Labour costs

Contact time with patient: $(1 \times 0.25) = 0.25$ hours

Unit cost: £37 per hour

Labour cost: $£37 \times 0.25 = £9.25$

Combining behavioural advice with physical therapy adds approximately £9 to the cost of conservative treatment.

Bladder training + drugs

Description of treatment and assumptions

- As for bladder training and drug therapy alone, except it is assumed that drug review can be part of a bladder training session with no time implication. The cost of this multicomponent treatment is therefore less than the sum of its parts.

Costs

Bladder training cost: £94

Oxybutynin cost: £57 (1 year’s treatment)

ER tolterodine: £399

Less GP review of medication: −£21

Total cost (bladder training + oxybutynin): £130

Total cost (bladder training + ER tolterodine): £472

Appendix T Cost effectiveness analysis for duloxetine (2006)

First-line treatment: Pelvic floor muscle training versus duloxetine

A decision tree model was developed in Microsoft Excel to compare the cost effectiveness of pelvic floor muscle training (PFMT) and duloxetine as a first-line treatment for women with moderate to severe stress UI, which is assumed to be 14 or more leakage episodes per week. Treatment effects and costs were based on a 52 week time frame. The structure of the model is shown below in Figure F.1. Patients are given either PFMT or duloxetine as a first-line treatment for their stress UI.

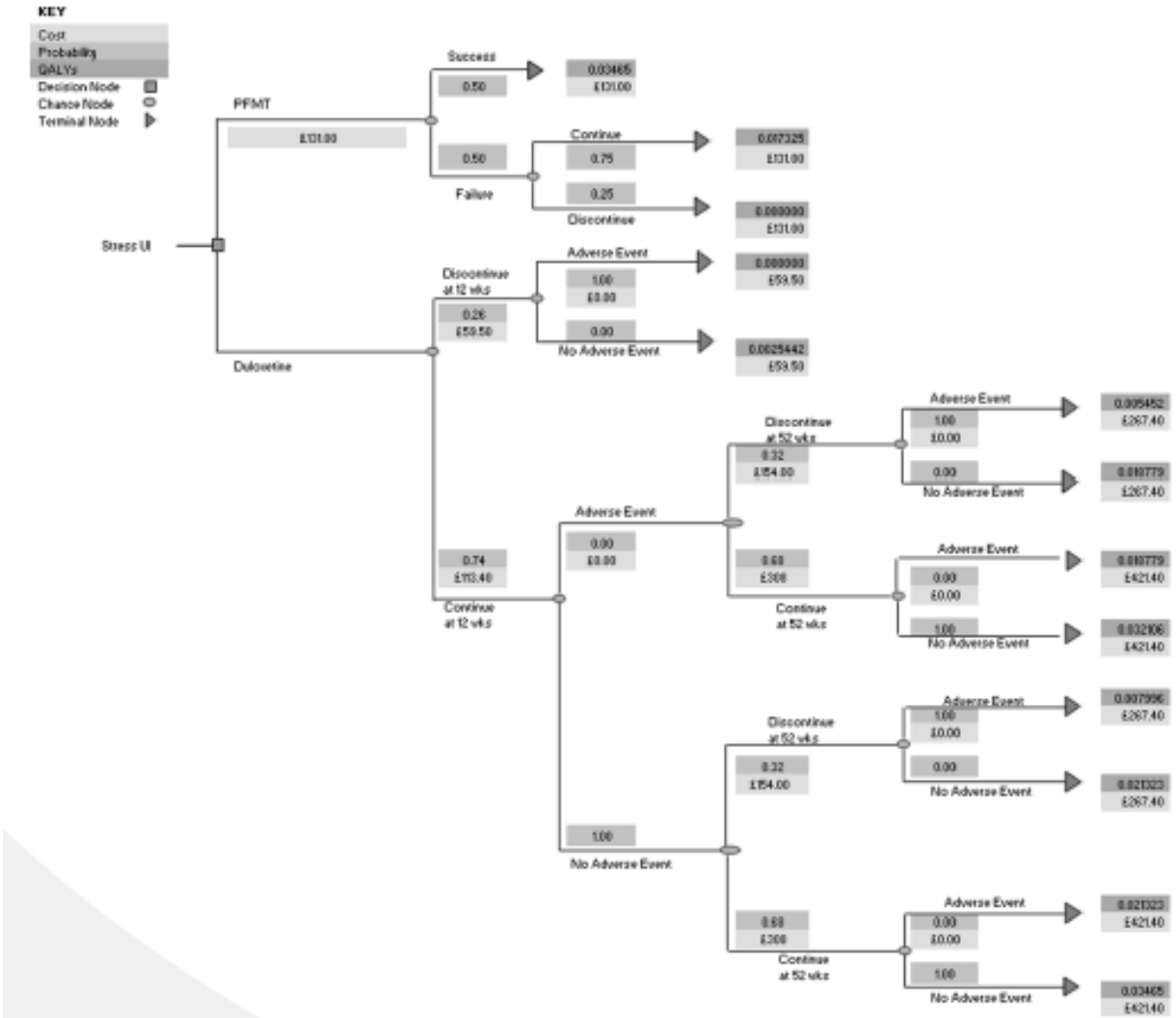


Figure F.1 Decision tree model of PFMT versus duloxetine

Patients in the PFMT arm can either 'succeed' or 'fail'. If patients 'fail' on PFMT, they either continued treatment, on the basis that they derive some treatment effect, or discontinued treatment. It is assumed that there are no adverse effects from PFMT.

Patients who take duloxetine as their first-line treatment have either continued or discontinued by 12 weeks, the period for which there is most trial data.

The structure of the model allows patients on duloxetine to have an adverse event whether they continued or discontinued. However, under baseline assumptions, it is assumed that adverse events are the reason for discontinuation and that patients who continued do not experience any adverse events. Patients who continued beyond 12 weeks can, by 52 weeks, either continue on treatment or have discontinued. Again, they may have continued/discontinued with or without adverse events.

Cost parameters

Table T.1

Item	Cost
PFMT	£131
Duloxetine cost per day	£1.10
GP consultation	£21.00
Review consultations 1	1
Additional duloxetine-attributable consultations, weeks 12–52	0
Drug adverse effects	£0

The cost of PFMT in the model is based on six sessions with a senior 1 grade physiotherapist. The first session is 1 hour and subsequent sessions last half an hour (refer to Appendix S for more details on cost derivation). The daily cost of duloxetine is derived from BNF 50. The cost of taking duloxetine also includes one review GP consultation, of 9.36 minutes duration, with the cost taken from *Unit Costs of Health and Social Care 2004.*[932] It is additionally assumed at baseline that adverse effects of duloxetine do not impose any costs on the NHS and that there are no further review GP consultations after week 12.

Probability parameters

Table T.2

Item	Cost
PFMT successful	50%
Continued PFMT if fail	75%
Continued duloxetine at 12 weeks	74%
Continued duloxetine at 52 weeks (if continued at 12 weeks)	68%
Adverse event if continued duloxetine at 12 weeks (weeks 0–12)	0%
Adverse event if continued duloxetine at 52 weeks (weeks 12–52)	0%
Adverse event if discontinued duloxetine by 12 weeks (weeks 0-12)	100%
Adverse event if discontinued duloxetine by 52 weeks (weeks 12–52)	100%

The probabilities that PFMT is successful, that patients continue PFMT if treatment fails, and that patients continue duloxetine at 12 and 52 weeks are taken from a published cost effectiveness analysis.[426]

Incontinence outcome parameters

Table T.3

Incontinence outcome	Value
Reduction in leakage episodes (PFMT success)	55%
Reduction in leakage episodes (PFMT fail/continued)	27.5%
Reduction in leakage episodes (PFMT fail/discontinued)	0%
Reduction in leakage episodes (duloxetine continued)	55%
Reduction in leakage episodes (duloxetine discontinued)	0%
Reduction in leakage episodes (duloxetine discontinued by 12 weeks)	42%
Reduction in leakage episodes (duloxetine discontinued by 52 weeks)	55%
Days on duloxetine if discontinued by 12 weeks	35 days
Weeks on duloxetine for those who discontinued by 52 weeks	32 weeks

The data above relate to the percentage reduction in leakage episodes and are taken from a published cost effectiveness analysis.[426] Similarly, the days on duloxetine if discontinued by 12 weeks is also taken from this source. For those women who continued at 12 weeks but discontinued by 52 weeks, it is assumed that they stop taking duloxetine halfway through this 40 week period.

QALY parameters

Table T.4

Outcome	QALYs
QALY gain – pre-treatment to continent	0.063
PFMT success	0.035
PFMT fail – continued	0.017
PFMT fail – discontinued	0.0
Duloxetine continued at 12 weeks	0.008
Duloxetine continued at 12–52 weeks	0.027
Duloxetine discontinued by 12 weeks	0.003
Duloxetine discontinued at 52 weeks	0.013
Duloxetine adverse effects by 12 weeks	−0.003
Duloxetine adverse effects by 52 weeks	−0.013

The QALY gain of treatment was derived from a published cost effectiveness analysis[426] and from information submitted to guideline developers within the stakeholder process. In a cost–utility analysis of TVT versus colposuspension, QALYs were derived from women who completed an EQ-5D questionnaire at baseline and 6 months after hospital discharge.[931] For TVT, the baseline estimate of QOL was 0.778 (0.785 for colposuspension) and at 6 months this had risen to 0.806. The cure rate for TVT patients was 66% and this can be used to estimate the QOL of a cure, as not all patients are dry at 6 months:

$0.806 = (QOL_{cure} \times 0.66) + (0.34 \times 0.778)$

$QOL_{cure} = (0.806 - [0.34 \times 0.778]) \div 0.66 = 0.82$

A published HTA report reviewing evidence on the clinical and cost effectiveness of TVT reports this QOL data, including the fact that a cure is associated with a QOL of 0.82. However, in its own cost effectiveness model, it uses QALY values of 0.85 and 0.80 for continent and incontinent women respectively.[716]

The published cost effectiveness analysis of duloxetine includes surgery as a follow-up treatment for patients in whom conservative management is unsuccessful.[426] The authors assume that in such patients there is a pre-surgery disutility of 0.05. However, these pre-surgery patients have had conservative management, which it is assumed has led to some reduction in leakage episodes, with a concomitant utility gain. The overall utility gain is calculated thus:

Pre-PFMT disutility × 0.79 = Post-PFMT disutility = 0.05

Pre-PFMT disutility = 0.063

A brief explanation of this formula is as follows:

- post-PFMT disutility is one and the same as pre-surgery disutility (0.05)
- pre-surgery patients:
  - 75% continued with PFMT and had a 27.5% reduction in leakage episodes
  - 25% did not continue with PFMT and had a 0% reduction in leakage episodes
  - weighted reduction in leakage episodes = (0.75 × 0.275) + (0.25 × 0) = 0.21
- therefore the post-PFMT disutility is only 79% (i.e., 1 - 0.21 = 0.79) of the pre-PFMT disutility and therefore the disutility of moderate to severe UI prior to any reduction in leakage episodes is 0.063.

The other QALY parameters are derived in a linear fashion from the percentage reduction in leakage episodes associated with the particular outcome (each terminal node on the tree) and the maximum QALY gain attainable from pretreatment to continent. In other words, if the QALY gain in achieving continence is 0.063 then a 55% reduction in leakage episodes is assumed to produce a 0.035 (i.e., 0.063 × 0.55) gain in QALYs. On the assumption that adverse effects are the main cause of discontinuation, it seems a reasonable approximation to say that the disutility from adverse event must be at least as great as any utility gain from reduced UI symptoms.

Results

Table T.5

Treatment	Cost for 52 weeks	QALY	Incremental cost	Incremental QALY	ICER
PFMT	£131	0.024		0.004	Dominates
Duloxetine	£291	0.019	£160		

Using baseline assumptions, PFMT ‘dominates’ duloxetine. This means that it is both more effective and less costly.

Sensitivity analysis

Sensitivity analysis is used in economic evaluation to assess how sensitive the results of the model are to the assumptions made about the model parameters, particularly those parameters where considerable uncertainty exists as to their actual value.

One-way sensitivity analysis involves altering the value of a single parameter, holding all the others constant, to determine how sensitive the cost effectiveness conclusion is to the assumptions made about that particular parameter. Multi-way sensitivity analysis means that several default parameters are changed simultaneously, although one of the difficulties with this technique is the huge number of possible permutations that exist.

The results of some sensitivity analyses for this model are shown below. As the default shows PFMT to be dominant (produces more benefit for less cost), parameter values have been varied in favour of duloxetine. The rationale for this is that confidence in the robustness of the default conclusion – that PFMT is more cost effective – will be strengthened if the conclusion holds under less favourable scenarios for PFMT.

Cost differential between PFMT and duloxetine

Table T.6

Duloxetine ICER cost – PFMT cost	(cost/QALY)	Comment
£160	PFMT dominates	PFMT more cost effective
£140	PFMT dominates	PFMT more cost effective
£120	PFMT dominates	PFMT more cost effective
£100	PFMT dominates	PFMT more cost effective
£80	PFMT dominates	PFMT more cost effective
£60	PFMT dominates	PFMT more cost effective
£40	PFMT dominates	PFMT more cost effective
£20	PFMT dominates	PFMT more cost effective
£0	PFMT dominates	PFMT more cost effective
−£10	£2,097	PFMT more cost effective[a]
−£20	£4,282	PFMT more cost effective[a]
−£30	£6,466	PFMT more cost effective[a]
−£40	£8,923	PFMT more cost effective[a]
−£50	£11,107	PFMT more cost effective[a]
−£60	£13,291	PFMT more cost effective[a]
−£70	£15,476	PFMT more cost effective[a]
−£80	£17,660	PFMT more cost effective[a]
−£90	£19,900	Borderline – NICE ICER threshold

a Based on NICE threshold.

PFMT is always the more effective treatment. The ICER is for PFMT relative to duloxetine. Keeping all the other model parameter values constant, the annual cost of duloxetine would have to fall to £41 a year (i.e., drug costs would have to fall to £0.08 per day from their current level of £1.10) for the relative cost effectiveness of PFMT to be called into question.

Continued duloxetine at 12 weeks

Table T.7

Duloxetine ICER cost – PFMT cost	(cost/QALY)	Comment
75%	PFMT dominates	PFMT more cost effective
80%	PFMT dominates	PFMT more cost effective
85%	PFMT dominates	PFMT more cost effective
90%	PFMT dominates	PFMT more cost effective
95%	£227,000	PFMT more cost effective[a]
100%	£105,000	PFMT more cost effective[a]

a Based on NICE threshold.

Holding all other parameter values constant, it is necessary for 92% of patients on duloxetine to continue at 12 weeks in order for duloxetine to generate more QALYs than PFMT. However, even for a zero discontinuation rate at 12 weeks, the additional benefit falls a long way short of being cost effective because of the large cost differential between the two strategies.

Continued duloxetine at 52 weeks

Table T.8

Continued duloxetine at 52 weeks	(cost/QALY)	Comment
70%	PFMT dominates	PFMT more cost effective
75%	PFMT dominates	PFMT more cost effective
80%	PFMT dominates	PFMT more cost effective
85%	PFMT dominates	PFMT more cost effective
90%	PFMT dominates	PFMT more cost effective
95%	£229,000	PFMT more cost effective[a]
100%	£108,000	PFMT more cost effective[a]

a Based on NICE threshold.

Similarly, 91% of patients who continued at 12 weeks must still be on duloxetine at 52 weeks (0.74 × 0.91 = 67% of all patients) for duloxetine to generate more QALYs than PFMT. However, even if there is no discontinuation after 12 weeks, the small gain in QALYs (0.002) is considered poor value at an incremental cost of £200 per patient.

Continued PFMT if fail

Table T.9

Continued PFMT if fail	ICER (cost/QALY)	Comment
70%	PFMT dominates	PFMT more cost effective
60%	PFMT dominates	PFMT more cost effective
50%	PFMT dominates	PFMT more cost effective
40%	PFMT dominates	PFMT more cost effective
30%	PFMT dominates	PFMT more cost effective
20%	£588,000	PFMT more cost effective[a]
10%	£140,000	PFMT more cost effective[a]
0%	£80,000	PFMT more cost effective[a]

a Based on NICE threshold.

Duloxetine is more effective than PFMT for low values of this parameter. Therefore, the ICER is calculated for duloxetine relative to PFMT.

The conclusion that PFMT is cost effective is not sensitive to the assumption made about those who fail with PFMT but continue with their pelvic floor exercises, if all other parameter values are held constant.

Reduction in leakage episodes if continue with PFMT after 'failure'

Table T.10

Reduction in leakage episodes if PFMT fail/continued	ICER (cost/QALY)	Comment
25%	PFMT dominates	PFMT more cost effective
20%	PFMT dominates	PFMT more cost effective
15%	PFMT dominates	PFMT more cost effective
10%	PFMT dominates	PFMT more cost effective
5%	£194,000	PFMT more cost effective[a]
0%	£80,000	PFMT more cost effective[a]

a Based on NICE threshold.

The conclusion that PFMT is cost effective is not sensitive to the assumption made about the reduction in leakage episodes for those who continue pelvic floor exercises after PFMT has failed, if all other parameter values are held constant.

Multi-way sensitivity analysis

In the following example all of the following have been changed:

Table T.11

Parameter	Default	New value
Duloxetine cost per day £1.10	£1.10	£0.90
Review consultations	1	0
PFMT successful	50%	40%
Continue PFMT if fail	75%	50%
Continued duloxetine at 12 weeks	74%	80%
Continued duloxetine at 80 weeks	68%	80%

Under this scenario, the ICER for duloxetine is £27,000 per QALY. According to the NICE threshold, this would suggest that duloxetine was borderline cost effective. However, this figure has only been achieved by biasing all the changes to parameter values in favour of duloxetine.

Clearly, it is possible to set parameter values in the model so that duloxetine is cost effective. However, the plausibility of such values is contingent on duloxetine being considerably more efficacious than PFMT, and this is not supported by the best available evidence at this time.

Second-line treatment: surgery versus duloxetine

Given the finding that PFMT dominated duloxetine as a first-line treatment, a further decision tree model was developed, using TreeAge Pro 2006, to compare the cost effectiveness of surgery versus duloxetine for women with moderate to severe stress UI in whom first-line treatment with PFMT has been unsuccessful. A 2 year time frame was used for this model to reflect the fact that surgery has long-lasting effects that are not contingent on recurrent treatment costs. The decision tree for this model is shown in Figure F.2.

Patients in the surgery arm have primary surgery that can either 'succeed' or 'fail'. A proportion of patients in whom primary surgery fails will choose to have a second operation or even a third if the second also fails. The model does not include complications arising from surgery, most of which would be minor. Although they are extremely rare (less than 1 in 10 000 cases), severe complications (for example transfusion, ITU admission, death) may occur.

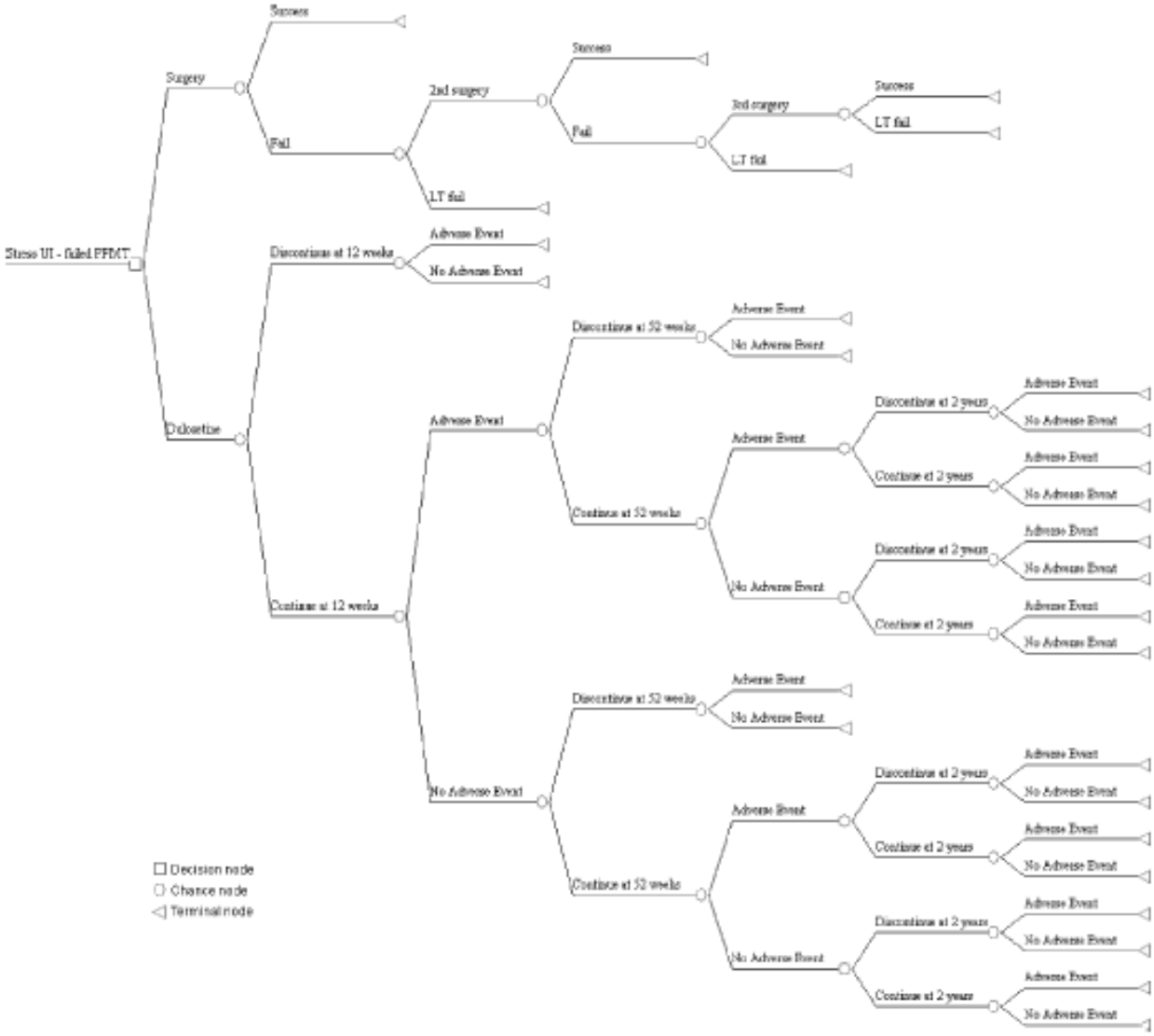


Figure F.2 Decision tree model of surgery versus duloxetine

The duloxetine 'sub-tree' is the same as in the first-line treatment model, with the addition of continue/discontinued branches at 2 years for those still taking the drug at 52 weeks. As with the first-line model, the decision tree structure for duloxetine includes patient pathways that allow for continuation on therapy with adverse events and for discontinuation in the absence of adverse events. However, the simplifying default assumptions for model parameters is that adverse events cause discontinuation and that patients who continued with duloxetine did not experience any adverse events.

Cost parameters

Table T.12

Resource item	Value
Surgery (TVT)	£1,014
Gynaecology outpatient consultation	£124
Urodynamics	£140
Urodynamics prior to primary surgery	1
Urodynamics prior to secondary surgery	1

Resource item	Value
Duloxetine cost per day	£1.10
GP consultation	£21.00
Review consultations for duloxetine	1
Drug adverse effects	£0

The cost of surgery is based on a published economic evaluation of TVT.[716] It is assumed that a patient will have a gynaecology outpatient consultation prior to primary surgery and following a 'failed' operation. The cost of a gynaecology outpatient consultation is based on the mean value reported in the 2004 NHS Reference Costs for a first attendance for an outpatient gynaecology consultation. It is additionally assumed that urodynamics will be undertaken prior to primary or secondary surgery, reflecting current practice. The cost of urodynamics is taken from the mean unit cost for urodynamics reported in the 2003 NHS Reference Costs. The daily cost of duloxetine is derived from BNF 50. The cost of taking duloxetine also includes one review GP consultation, of 9.36 minutes duration, with the cost taken from *Unit Costs of Health and Social Care* 2004.[932] It is additionally assumed at baseline that adverse effects of duloxetine do not impose any costs on the NHS and that there are no further review GP consultations after week 12. In accordance with NICE methodology, costs occurring in the second year are discounted at 3.5%.

Probability parameters

The adverse event probabilities are a simplifying assumption of this model. The other probabilities are taken from a published cost effectiveness study.[426] The surgery success rate parameter is taken from an RCT of open colposuspension versus TVT.[659,660]

Table T.13

Event	Probability
Surgery (TVT) successful	66%
Have second surgery if primary surgery fails	75%
Have third surgery if second surgery fails	30%
Adverse event if continued duloxetine	0%
Adverse event if discontinued duloxetine	100%
Continued duloxetine at 12 weeks	74%
Continued duloxetine at 52 weeks	68%[a]
Continued duloxetine at 2 years	90%[a]

a Expressed as a proportion of those continuing from the previous period.

Incontinence outcome parameters

Table T.14

Incontinence outcome	Value
Reduction in leakage episodes (surgery success)	100%
Reduction in leakage episodes (surgery fail)	50%
Reduction in leakage episodes (duloxetine continued)	55%
Reduction in leakage episodes (duloxetine discontinued)	0%
Reduction in leakage episodes (duloxetine discontinued by 12 weeks)	42%
Reduction in leakage episodes (duloxetine discontinued after 12 weeks)	55%
Days on duloxetine if discontinued by 12 weeks	35 days

Incontinence outcome	Value
Weeks on duloxetine for those who discontinue by 52 weeks	32 weeks
Weeks on duloxetine for those who discontinue by 2 years	78 weeks

It is assumed that women who stop taking duloxetine between 12 and 52 weeks, and between the first and second year, do so at the midpoint of these time intervals.

QALY parameters

Table T.15

Outcome	QALYs
QALY gain – pre-treatment to continent	0.063
Duloxetine continued at 12 weeks	0.008
Duloxetine continued at 12–52 weeks	0.026
Duloxetine continued at 2 years[a]	0.069
Duloxetine discontinued by 12 weeks	0.003
Duloxetine discontinued by 52 weeks	0.013
Duloxetine discontinued by 2 years[a]	0.052
Duloxetine adverse effects at 12 weeks	−0.003
Duloxetine adverse effects at 52 weeks	−0.013
Duloxetine adverse effects at 2 years[a]	−0.017
Surgery success[a]	0.126
Surgery long-term fail[a]	0.063

a Not discounted.

Again, it is assumed that adverse effects are the main cause of discontinuation and that the disutility from adverse event must be at least as great as any utility gain from reduced UI symptoms. The other QALY values are derived by assuming a linear relationship between QALY gain and the reduction in leakage episodes.

QALYs occurring in the second year of the model are discounted at 3.5% in accordance with NICE guidance.

Results

Table T.16

Treatment	Cost	QALY	Incremental cost	Incremental QALY	ICER
Duloxetine	£477	0.0345			
Surgery	£1,655	0.1143	£1,178	0.0798	£14,765

Using baseline assumptions, surgery would be considered as the more cost effective treatment with an ICER well within the £20,000 per QALY threshold for cost effectiveness suggested by NICE.

Sensitivity analysis

A series of one-way sensitivity analyses was undertaken to establish the parameter thresholds to achieve a £20,000 cost per QALY. Given the baseline result, this means varying parameter values in favour of duloxetine.

QALY parameters

Table T.17

Parameter	Value at which surgery cost per QALY = £20,000
Cost of surgery (TVT)	£1,450
Cost of duloxetine per day	£0.09
Surgery 'success'	48%
Reduction in leakage episodes for surgery 'success'	80%
Reduction in leakage episodes for duloxetine 'success'	100%
QALY gain from cure	0.0465

For all other parameter values, the ICER remains below £20,000 per QALY.

Discussion

This model suggests that surgery is more cost effective than duloxetine as a second-line treatment for stress UI in women who have failed PFMT. Sensitivity analysis suggested that this result was not greatly affected by the assumptions used to inform parameter values.

The model was restricted to a 2 year follow-up because of a lack of long-term effectiveness data, particularly for duloxetine. Although, the effectiveness of surgery may decline over time, the limited time frame of the model still represents a considerable bias against surgery, as it does not allow for long-lasting effects and the continuing costs that would be required for medical therapy. However, this bias is offset to some extent by the decision not to include complications arising from surgery, to simplify the model.

The surgery success rate parameter is taken from an RCT of open colposuspension versus TVT,[659,660] but this is a lower value than published case series; our assumptions may therefore underestimate the success of primary surgery. While it is probably inaccurate to say that the success of surgery does not decline with subsequent procedures, the assumption that this is the case simplifies the model.

However, the model also shows duloxetine to be a much cheaper strategy than surgery and therefore it could be considered as a second-line treatment for women who would choose it in preference to surgery, as lower cost care does not impose opportunity costs on the NHS.

Appendix U A partial cost–consequence analysis for surgical treatment options for overactive bladder (2006)

Most women can be treated successfully for overactive bladder (OAB) with conservative measures but a small proportion with more severe symptoms may require surgery. Sacral nerve stimulation (SNS) is a relatively new but effective treatment option for patients in this category but is expensive and currently only available in a limited number of centres in the UK. However, alternatives to SNS often involve major surgery, such as augmentation cystoplasty or urinary diversion, and are also expensive. The associated long-term morbidity, and risk of further surgical intervention, appears to be higher for cystoplasty and urinary diversion than it is for SNS, therefore a cost–consequence analysis was undertaken[12].

Literature review

A literature review did not identify any studies that carried out a full economic evaluation of SNS for patients with UI, although, a cost analysis was undertaken for a report by the Australian Medicare Services Advisory Committee (MSAC).[934] A full economic analysis was not considered by MSAC because of uncertainty about treatment costs, particularly in relation to patients for whom the implant is unsuitable or fails. The authors also justified their costing approach because of uncertainty surrounding treatment on health outcomes.

The MSAC report estimated that the 6 month treatment costs of SNS for patients with urge incontinence or urinary retention were AUD11,000 per patient initiated to treatment with percutaneous sacral nerve evaluation (PNE). PNE equipment and implant cost accounted for AUD6,567 and surgery and re-surgery costs for AUD4,464. It was further estimated that SNS could produce savings of between AUD245 and AUD574 per patient in laundry costs and incontinence products over the 6 month period. The report noted that such savings would increase if the device continued to be effective but they also noted that not all revision surgery may be captured in the first 6 months. Using data from the literature,[515] they estimated that approximately 30% of urge incontinence patients tested with PNE would be dry at 6 months with a cost effectiveness ratio of AUD35,000 (95% CI AUD28,000 to AUD 46,000) per additional person free of incontinence when compared with no treatment.

Cost analysis

The costings are based on a successfully treated patient over 10 years. However, there are clearly patients with all treatments who do not have successful outcomes. Such patients will then go down a

12 Cost–consequence analysis is a limited form of economic evaluation that considers costs alongside consequences (or outcomes) without calculating an ICER. It was not possible within the constraints of this guideline to undertake a more sophisticated economic evaluation, especially as these treatment options are likely to be low volume.

different treatment pathway that also has resource implications, which could be considerable. A full costing analysis would account for this but it was not possible to do this fully within the constraints of the guideline. However, where data are available, some indication of alternative pathways will be given in the event of treatment failure. Costs that are known to occur in the future are discounted at a rate of 3.5% per annum.

Sacral nerve stimulation

Table U.1

Item	Unit cost	Source of cost data
Percutaneous nerve evaluation	£687	Procedure – 2004 NHS Reference Costs (HRG code R19, day case)
	£1,200	Tined lead
Permanent implant	£687	Procedure – 2004 NHS Reference Costs (HRG code R19, day case)
	£6,870	Implant device

Total initial treatment cost = £9,444

Approximately 50% of patients get sufficient improvement in symptoms from PNE to proceed to the permanent implant. Other treatment options would have to be considered for the patients who are deemed not suitable for SNS after PNE.

Of those who have the permanent implant, approximately 65–70% have a satisfactory outcome. In those where the outcome is unsatisfactory, augmentation cystoplasty or urinary diversion may be considered.

A battery change is required after 7 years and costs £4,400. This would again require a day case procedure (HRG code R19). A proportion of patients with satisfactory SNS outcomes will also require revision surgery, which is usually undertaken as a day case procedure. Estimates of the requirement for further surgery are indicated below.[512]

- surgical revision rate: 33%
- replacement or relocation of implanted pulse generator: 15%
- permanent device removal: 9%

Augmentation cystoplasty

Table U.2

Item	Unit cost	Source of cost data
Procedure	£3,440	2004 NHS Reference Costs (HRG code L14)

Total initial treatment cost = £3,440

It has been estimated that:[536]

- 80% of patients treated would need to self-catheterise.
- 6% will need a re-operation for bleeding or for bowel obstruction. This would be a major abdominal procedure with a 2004 NHS Reference Cost of between £1,600 and £3,000 depending on age (HRG code F41/F42).
- 25% of patients will have symptomatic infections and need long-term antibiotics (low-dose trimethoprim or cefalexin and receive six full-week courses of oral ciprofloxacin per annum).

- There is a 60% cumulative risk of stones over 10 years, and this will usually require intermediate bladder endoscopy to resolve (code L18), which has a NHS 2004 Reference Cost of between £500 and £1,000 depending on whether it is done as a day case or elective inpatient procedure.
- Long-term complications mean that about 6% of patients need repeat abdominal surgery within 10 years. This repeat surgery would cost £3,440 or more if a conversion to urinary diversion was considered.

Urinary diversion

Table U.3

Item	Unit cost	Source of cost data
Procedure	£5,536	2004 NHS Reference Costs (HRG code L14)

Total initial treatment cost = £5,536

Furthermore, it has been estimated that:[935]

- All patients would need to use stoma products for the rest of their lives.
- There is a 60% cumulative risk of stones over 10 years which usually require intermediate bladder endoscopy to resolve (HRG code L18).
- 25% of patients will have symptomatic infections and need long-term antibiotics (low-dose trimethoprim or cefalexin and receive six full-week courses of oral ciprofloxacin per annum).
- The risk of stoma complications is approximately 80% over 10 years and, of these, approximately 50% would require revision surgery , which would cost between £1,600 and £3,000 depending on age

Botulinum toxin A

Table U.4

Item	Unit cost	Source of cost data
Botulinum A (200 units)	£258	BNF 51
Procedure	£458	2004 NHS Reference

A patient successfully treated would require repeat injections every 8 months. Future treatment costs were discounted using a 3.5% annual discount rate to give the 10 year cost of treatment.

10 year treatment cost = £9,296

Additionally, it has been estimated that 20% of patients would fail to respond with botulinum toxin A and these patients would be considered for alternative treatment after their initial injections. Of the patients who continue, 20% would need to self-catheterise half the time.

Cost–consequence comparison

Treatment	Cost (10 year)	Consequences
Sacral nerve stimulation	£8,437 + replacement battery + surgical revisions	Up to two-thirds of patients achieve continence or substantial improvement in symptoms after SNS; the available data show that beneficial effects appear to persist for up to 3–5 years after implantation. Around one-third of patients may require re-operation, most often

Treatment	Cost (10 year)	Consequences
		owing to pain at the implant site, infection, or the need for adjustment and modification of the lead system. Permanent removal of the electrodes may be required in one in ten patients. Developments in the devices and leads have resulted in reduced rates of complications since introduction of the technique.
Augmentation cystoplasty	£3,440 + complication costs + self-catheterisation costs	Data on augmentation cystoplasty in women with UI or OAB are limited to case series. Cure or improvement has been reported in at least half of patients with idiopathic DO. Postoperative complications such as bowel disturbance, metabolic acidosis, mucus production and/or retention in the bladder, UTI and urinary retention are common or very common. There is a high incidence of recurrent UTI postoperatively, and many patients will need to self-catheterise. Malignant transformation in the bowel segment or urothelium has been reported in a small number of cases.
Urinary diversion	£5,536 + complication costs	There are limited data on the outcomes of urinary diversion in women with UI or OAB. Where the procedure has been used in men and women with benign conditions, vesical infection, stoma-related problems and the need for surgical revisions occur very commonly.
Botulinum toxin A	£9,296 + self-catheterisation costs	Data on the use of botulinum toxin A in the management of idiopathic detrusor overactivity are limited. The available data show cure or improvement in about half of patients, with duration of benefit between 3 and 12 months.

Discussion

This guideline has made a recommendation that SNS be used in the treatment of UI due to DO in women who have not responded to conservative treatments and we expect it to be a low volume intervention. SNS has high initial treatment costs and requires a battery replacement after approximately 7 years. However, as this cost–consequence analysis shows, the alternative treatment options for this group of women with refractory incontinence are all expensive, and the incremental costs of SNS when compared with the alternatives are much less (and possibly even negative) than when looking at the costs of SNS in isolation.

A cost–consequence analysis does not demonstrate cost effectiveness and it is difficult to compare effectiveness in a quantitative way. However not only does major surgery such as augmentation cystoplasty or urinary diversion carry a high cost over time but the morbidity is also high and only around 50% of patients are satisfied with the outcome. Although botulinum toxin A injection appears to offer promising results the current evidence is limited; it is assumed that repeated injections will be required. The incremental costs over time are therefore likely to be very high. We believe that this cost–consequence analysis provides an economic justification for the recommendation made.

Appendix V GDG survey on draft clinical questions – feedback

These are the clinical questions defined by the scope. These are the questions we will be answering during this update.

Pharmacological interventions

Question 1

In women with OAB, what is the effectiveness the following pharmacological interventions compared with immediate release oxybutynin?

- Darifenacin
- Solifenacin
- Tolterodine
- Trospium
- Propiverine
- Propiverine - extended release
- Darifenacin - extended release
- Fesoterodine - modified release
- Oxybutynin - modified release
- Oxybutynin - transdermal
- Oxybutynin - topical gel
- Trospium - extended release
- Tolterodine - extended release

Question 2

In women with OAB caused by detrusor overactivity, what is the effectiveness the following pharmacological interventions compared with immediate release oxybutynin?

- Darifenacin
- Solifenacin
- Tolterodine
- Trospium
- Propiverine
- Propiverine - extended release
- Darifenacin - extended release
- Fesoterodine - modified release

- Oxybutynin - modified release
- Oxybutynin - transdermal
- Oxybutynin - topical gel
- Trospium - extended release
- Tolterodine - extended release

Neuromodulation

Question 3

In women with OAB, what is the effectiveness of sacral nerve stimulation (SNS) compared with no active treatment?

Question 4

In women with OAB caused by detrusor overactivity, what is the effectiveness of sacral nerve stimulation (SNS) compared with no active treatment?

Question 5

In women with OAB what is the effectiveness of percutaneous (posterior) tibial nerve stimulation (PTNS) compared with no active treatment?

Question 6

In women with OAB caused by detrusor overactivity, what is the effectiveness of PTNS compared with no active treatment?

If both forms of neuromodulation are more effective than no active treatment, then we will review the following (Q6 and Q7)

Question 7

In women with OAB what is the effectiveness of sacral nerve stimulation compared with PTNS?

Question 8

In women with OAB caused by detrusor overactivity, what is the effectiveness of sacral nerve stimulation compared with PTNS?

Botulinum Toxin A

Question 9

In women with OAB caused by detrusor overactivity, what is the effectiveness of BoNT A when compared with placebo?

If BoNT-A 200U is more effective than placebo then we will review the following

In women with OAB caused by detrusor overactivity, what is the effectiveness of BoNT A 100U when compared with BoNT-A 200U?

If BoNT-A 200U is not as effective as placebo then we will review the following

In women with OAB caused by detrusor overactivity, what is the effectiveness of BoNT A 100U when compared with placebo?

All interventions (shown to be effective in previous questions)

Question 10

In women with OAB what is the effectiveness of neuromodulation (SNS or PTNS) compared with pharmacological interventions?

Question 11

In women with OAB caused by detrusor overactivity, what is the comparative effectiveness of neuromodulation (SNS or PTNS), pharmacological interventions and Botulinum toxin A?

Tape procedures

Question 12

What is the comparative effectiveness (in both the short- and long-term) of surgical approaches for mid-urethral procedures in women undergoing their primary surgical tape procedure?

- retropubic bottom up
- retropubic top down
- transobturator inside out
- transobturator outside in.
- single incision

Question 13

What is the comparative effectiveness of the following interventions for women with failure of the primary tape procedure?

- lifestyle interventions, specifically weight loss, fluid management and smoking cessation
- physical therapy, specifically pelvic floor muscle training (PFMT)
- Repeat tape procedure
- Fascial sling
- Colposuspension

Feedback on your responses to our questionnaire

We asked you specific questions about in the recent survey to gain a more detailed understanding of the clinical concerns behind the clinical questions outlined in the scope. Below we have summarized your responses and the decisions that have been taken as a consequence of the majority view.

Part A

In part A of the questionnaire we asked you questions in relation to the duration of studies.

Pharmacological interventions

We asked the GDG how long a patient with OAB should take a drug before you would expect to see an improvement. We needed to know this in order to exclude studies that measure outcomes at a time point which is not clinically meaningful.

The response was that a clinically meaningful interval to measure short term outcomes is 4 weeks. We expect the literature to report outcomes at a varied range of time points. Therefore, we will take 4 weeks as the minimum interval. Studies that report outcomes within the 4-8 week window will have data included in the review. If a study reports data at multiple intervals in the 4-8 week period, we will report the time-point closest to 4 weeks. This data will be included in a meta-analysis, resulting in one overall estimate of effectiveness for each drug regimen

Most studies will also report longer term outcomes at a range of intervals. Leaving out time points beyond 4-8 weeks means losing some information about the drug profile in terms of long term effects. However, we will still have a good measure of short term effectiveness. If women tolerate a treatment at 4 weeks they are likely to stay on the drug. If a drug is not effective at 4 weeks, it is unlikely to be continued.

The consequence is that if a drug regimen has a short term benefit which tails off after 4 weeks we will not be able report this data in the guideline. If the GDG believe this is important information for this question, then this counts as another clinical question (“What is the longer term effectiveness - greater than 3 months - of pharmacological interventions that are effective at 4-8 weeks?”). If this is an important concern to the GDG, then it is very likely we will have to drop another clinical question. If you strongly disagree with a four week time-point only, we need to hear from you very soon.

The survey also asked you to consider the time interval to beneficial effects. The consensus was 6-8 hours. Most anticholinergics last 4-6 hrs unless extended release which is 24 hrs. The implications for

the literature review is that studies that report a treatment lasting 6-8 hours will be included in the review as this reflects common practice in the NHS.

We also asked whether the doses in the BNF reflect current practice. The consensus was that it did, although doses varied with titration, especially at the start of treatment. Therefore data will not be excluded from the analysis if they relate to doses below the BNF recommendations at the start of treatment. However if a study is of lower doses over a sustained period (e.g. the length of the trial) then this study will be excluded.

Neuromodualtion

We asked the GDG how long a woman should be given neuromodulation before you would expect to see an improvement.

Sacral nerve stimulation:

Responses mentioned that in clinical practice a trial of a temporary device is undertaken before a permanent device is inserted. The time given to assess the efficacy of the temporary device is 2-3 weeks. If this was successful and a permanent device is fitted, this would be expected to be effective immediately.

The implications for the literature review are that we will only include studies about permanent devices. Also, we will only include studies where it is clear that the participants have already had a successful trial with a temporary device

We will include outcome data measured up to 3 weeks post implantation. As with the drugs question above, longer term outcome data may be reported but will not be included in the review, unless the GDG consider this important enough to be a separate clinical question (*which again would mean losing another question*).

PTNS:

The consensus is that meaningful improvement is seen after 6 weekly sessions. The implication for the review is that if studies report on multiple time-points (4 weeks, 6 weeks, 8 weeks etc.) then we will extract the data at 6 weeks. If 6 week data is not reported we will extract data for the time-point closest to and greater than 6 weeks (maximum 12 weeks)

Botulinum Toxin A

We wanted to know how long you would expect the effects of a single injection of BoNT A to last and how often Botulinum toxin A injections are repeated. The response was that under normal circumstances BoNT-A would be expected to last 6 months and would be repeated every 6 months. The implications for the review are that studies with a follow-up of less than 6 months and studies that repeat BoNT-A less than 6 months after the first injection will be excluded from the review. Also if a study gives multiple doses within 6 months then it will not be included in the analysis

Studies with greater than 6 months follow-up will have data extracted at the time point closest to 6 months only. Outcomes from only one data point will be reported in the evidence summary.

The GDG was also asked if 200U is the dose that is used in the majority of circumstances. Most GDG members said they did not know, but those that did reported that 200U is a commonly used dose. The technical team will check BNF for licensed dose. However, as BoNT A has only just been licensed, the optimal dosage has not yet been established. Therefore studies that examine a lower or higher dose of BoNT-A may be included in the literature review (reviewing time permitting) as follows; if 200U is better than placebo then different doses will be compared with 200U. If 200U is worse than placebo then different doses (100U or 300U) will be compared to placebo beginning with 100U.

Tape Procedures

The GDG was asked to consider the appropriate time interval to assess tape failure and effectiveness (relief of symptoms) of surgical tape. Both “tape failure” (SUI not cured, OAB symptoms worse or de novo, exposure / erosion) and tape success (improvement in symptoms of SUI) are recorded in studies of tapes. The most important outcome to women is whether the tape relieves their symptoms (a tape may not “fail” but still not be effective in terms of improving quality of life). In the literature review, tape failure will be treated as an intermediate rather than a final outcome. The view was that success could not be assessed earlier than 12 months and so data will be extracted at the closest

time point to 12 months. Some studies may report outcomes, not at a fixed time point (e.g. 12 months), but as a mean average of different time points e.g. 13 plus or minus 3 months. The problem with this is that many of the patients captured by this average were actually assessed at less than 12 months). For this reason, where means are used to report on when women were assessed, we will not be able to use the data in the evidence review.

Time points earlier than 12 months and the assessment of tape failure alone will not be included in the evidence review. There was consensus within the responses that tape failure could be assessed between 3 and 6 months after the procedure and this consensus view will inform the later question on what to do after the failure of a primary tape procedure.

Part B

In part B of the questionnaire we asked you questions in relation to outcomes.

Measurement of outcomes

Seven outcomes appeared in the scope. We were interested in your thoughts on the exact definition of these outcomes. This has an effect on the data that is extracted from the studies included in the guideline and the extent to which that data is pooled to create summary statistics that are presented in evidence summaries.

1) Continence status (zero episodes per day).

The majority agreed this is a well-defined outcome. Where data is reported it will be extracted and will be presented in the evidence summary.

2) Self-reported rate of absolute symptom reduction per day.

There was a degree of consensus that a 75% reduction the number of episodes was a ‘clinically important difference’ to assess the effectiveness of the intervention. This means that interventions that show an improvement greater to or equal to 75% will be reported in the guideline as demonstrating effectiveness of treatment. Any reported improvement that is less than this threshold will be reported as failing to demonstrate a clinically important difference in absolute symptom reduction between treatments.

3) Patient satisfaction with treatment

We will cluster the categories in different patient satisfaction ratings scales into “improved” and “not improved” with the result of having a dichotomous outcome of ‘improved’ and ‘not improved’.

4) Adverse effects of treatment

For drugs, the GDG identified dropout rate to be the most important measure of adverse effects and so we will report this in the evidence summary. We will extract any data on specific adverse effects in the evidence tables.

For neuromodulation, we will extract data on both the complications due to the insertion procedure and the device. If it is not clear whether the adverse effects data reported in the study are due to complications due to the insertion or due to the device then the study will not be included in the review in order to minimise the bias from studies that systematically under-report complications.

For tape procedures, we will report complications of the procedure and complications due to the implanted tape. As for neuromodulation, studies that do not report these two types of complications will not be included in this analysis to minimise bias.

5) Incontinence-specific quality of life

Data will be extracted for different incontinence-specific measures of quality of life as they all measure the same thing. Data from generic quality of life instruments will not be included in this analysis but these studies will be passed to the health economist to inform the health economic analysis

6) Psychological outcomes

No issues arising

7) Clinical measures

The majority of the GDG considered post-void residual volume to be the most clinically relevant measure, so this will be extracted and reported.

Prioritising outcomes

As well as wanting to know the data we should be extracting, we also wanted to know which outcomes were of highest priority After tallying up the votes the following is how the GDG ranked the outcomes with the outcome with the highest vote first:

- Patient satisfaction with treatment
- Self-reported rate of absolute symptom reduction per day
- Continence status (zero episodes per day)
- Incontinence-specific quality of life
- Adverse effects of treatment
- Psychological outcomes
- Clinical measures

The majority of GDG members preferred the self-reported rate of absolute symptom reduction (outcome 2) to be reported as ‘episodes of incontinence’ and ‘episodes or urgency’ separately. This means we now have eight rather than seven outcomes. A maximum of seven outcomes are presented to the GDG. The consequence is that outcomes will be reported in the order or priority decided by the GDG (as above). In the case where a study reports the first seven outcomes, the final outcome (clinical measures) will not be presented. It is however rare that any one study will report all eight outcomes prioritised by the GDG, so this problem is unlikely to arise lead to significant problems.