Irritable bowel syndrome in adults: diagnosis and management of irritable bowel syndrome in primary care

NICE guideline

Draft for consultation, August 2007

If you wish to comment on this version of the guideline, please be aware that all the supporting information and evidence is contained in the full version.

Contents

Introduction

Irritable bowel syndrome (IBS) is a chronic, relapsing and often life-long disorder. It is characterised by the presence of abdominal pain/discomfort, which may be associated with defaecation or a change in bowel habit. Symptoms may include disordered defaecation (constipation or diarrhoea or both) and a sensation of abdominal distension, usually referred to as bloating. Symptoms sometimes overlap with other gastrointestinal (GI) disorders such as non-ulcer dyspepsia, or with coeliac disease. Primary care clinicians should ask people who present with symptoms of IBS open questions to get a feel for the multiple features of the syndrome.

People with IBS may present with differing symptom profiles, most commonly ‘diarrhoea predominant’, ‘constipation predominant’ or alternating symptom profiles. IBS most often affects people between the ages of 20 and 30 years and is twice as common in women as in men. Prevalence in the general population is estimated to be around 10%. Recent trends indicate that there is also a significant prevalence of IBS in older people. Therefore, IBS diagnosis should be a consideration when an older person presents with unexplained abdominal symptoms.

The importance of a positive IBS diagnosis, referral into secondary care following identification of ‘red flag’ symptoms, lifestyle advice relating to diet and physical activity, drug and behavioural therapies, referral and follow-up are all key aspects to the guideline. This guideline refers to NICE clinical guideline 27, which relates to suspected cancer diagnosis.

The main aims of this guideline are to:

- provide positive diagnostic criteria for people presenting with symptoms suggestive of IBS
- determine optimal clinical and cost-effective management of IBS in primary care

- determine clinical and cost-effective indications for referral to therapeutic services for IBS.

The guideline will assume that prescribers will use a drugs' summary of product characteristics to inform their decisions for individual patients.

Patient-centred care

This guideline offers best practice advice on the care of adults with IBS.

Treatment and care should take into account patients' needs and preferences. People with IBS should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If patients do not have the capacity to make decisions, healthcare professionals should follow the Department of Health guidelines – 'Reference guide to consent for examination or treatment' (2001) (available from www.dh.gov.uk). Since April 2007 healthcare professionals need to follow a code of practice accompanying the Mental Capacity Act (summary available from www.dca.gov.uk/menincap/bill-summary.htm).

Good communication between healthcare professionals and patients is essential. It should be supported by evidence-based written information tailored to the patient's needs. Treatment and care, and the information patients are given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English.

If the patient agrees, families and carers should have the opportunity to be involved in decisions about treatment and care.

Families and carers should also be given the information and support they need.

Key priorities for implementation

- Primary care clinicians should consider assessment for IBS if the patient reports having had any of the following symptoms for at least 6 months **[1.1.1.1]**:
  - change in bowel habit
  - abdominal pain/discomfort
  - bloating.

- Patients should be asked if they have any of the following 'red flag' symptoms **[1.1.1.2]**:
  - unintentional and unexplained weight loss
  - rectal bleeding
  - familial history of bowel cancer.

Patients should be assessed for:

  - anaemia
  - abdominal masses
  - rectal masses.

Identification of any of the above should result in referral into secondary care for further investigation (see 'Referral guidelines for suspected cancer', NICE clinical guideline 27; www.nice.org.uk/CG027).

- For a positive diagnosis of IBS to be made, the person must complain of abdominal pain or discomfort which is either relieved by defaecation, or associated with altered bowel frequency or altered stool form. This must be accompanied by at least two of the following four symptoms **[1.1.1.3]**:
  - altered stool passage (straining, urgency, incomplete evacuation)
  - abdominal bloating (less common in men), distension, tension or hardness
  - symptoms made worse by eating
  - passage of mucus.

It should be noted that other features such as lethargy, nausea, backache and bladder symptoms are common in people with IBS, and can be used to support the diagnosis.

- In people who meet the IBS diagnostic criteria, it is recommended that the following tests should be undertaken to exclude other diagnostic possibilities **[1.1.2.1]**:
  - full blood count (FBC)
  - erythrocyte sedimentation rate (ESR) or plasma viscosity
  - c-reactive protein (CRP)
  - antibody testing for coeliac disease (endomysial antibodies [EMA] or tissue transglutaminase [TTG]).

- The following tests should not be done to confirm diagnosis in people who meet the IBS diagnostic criteria **[1.1.2.2]**:
  - ultrasound
  - rigid/flexible sigmoidoscopy
  - colonoscopy; barium enema
  - thyroid function test
  - faecal ova and parasite test
  - faecal occult blood
  - hydrogen breath test (for lactose intolerance and bacterial overgrowth).

- People with IBS should be given information that explains the importance of self-help in effectively managing their IBS. This should include information on general lifestyle, physical activity, diet and symptom-targeted medication. **[1.2.1.1]**

- Primary care clinicians should review the fibre intake of a person with IBS, adjusting (usually decreasing) it according to effect while monitoring symptoms. People with IBS should be actively discouraged from taking insoluble fibre (bran). If an increase in dietary fibre is advised, this should

be soluble fibre (such as ispaghula powder) or foods high in soluble fibre (for example, oats). **[1.2.1.5]**

- Primary care clinicians should advise people with IBS how to adjust laxative or antimotility agent doses according to the clinical response. The dose should be titrated according to the stool consistency with the aim of achieving a soft, well formed stool (corresponding to Bristol Stool Chart type 4). **[1.2.2.4]**

- Primary care clinicians should consider the benefit of prescribing tricyclics as second-line treatment for people with IBS. Treatment should be initiated at a low starting dose (5–10 mg equivalent of amytriptyline), once at night, which should be reviewed regularly. The dose can subsequently be increased, but does not usually need to exceed 30 mg. **[1.2.2.5]**

1 Guidance

The following guidance is based on the best available evidence. The full guideline ([add hyperlink]) gives details of the methods and the evidence used to develop the guidance.

Diagnosis and management of irritable bowel syndrome (IBS) can be frustrating, both for people presenting with IBS symptoms and for clinicians. Both parties need to have a clear understanding of the IBS evidence base and recognise the chronic nature of the condition.

1.1 Diagnosis of IBS

The positive diagnosis of IBS is a key aspect of this guideline. In exploring the multiple features of the syndrome, primary care clinicians should establish symptom profiles, with pain/discomfort being a key symptom. In establishing the quantity and quality of pain/discomfort, clinicians need to identify the site (which can be anywhere in abdomen) and whether it varies. This distinguishes IBS from cancer-related pain/discomfort, which typically has a fixed site.

When establishing the person's bowel habit, the Bristol Stool Chart (see appendix I of full guideline) helps with description, particularly when determining quality and quantity of stool. People presenting with IBS symptoms commonly report incomplete evacuation/rectal hypersensitivity and urgency, which is increased in diarrhoea-predominant IBS. About 20% of people experiencing incontinence choose not to disclose this unless asked directly. Primary care clinicians should ask people who present with symptoms of IBS open questions to get a feel for the multiple features of the syndrome.

1.1.1 Initial assessment

1.1.1.1 Primary care clinicians should consider assessment for IBS if the patient reports having had any of the following symptoms for at least 6 months:

- change in bowel habit
- abdominal pain/discomfort
- bloating.

1.1.1.2 Patients should be asked if they have any of the following 'red flag' symptoms:

- unintentional and unexplained weight loss
- rectal bleeding
- familial history of bowel cancer.

Patients should be assessed for:

- anaemia
- abdominal masses
- rectal masses.

Identification of any of the above should result in referral into secondary care for further investigation (see 'Referral guidelines for suspected cancer', NICE clinical guideline 27; www.nice.org.uk/CG027).

1.1.1.3 For a positive diagnosis of IBS to be made, the person must complain of abdominal pain or discomfort which is either relieved by defaecation, or associated with altered bowel frequency or altered stool form. This must be accompanied by at least two of the following four symptoms:

- altered stool passage (straining, urgency, incomplete evacuation)
- abdominal bloating (less common in men), distension, tension or hardness

- symptoms made worse by eating
- passage of mucus.

It should be noted that other features such as lethargy, nausea, backache and bladder symptoms are common in people with IBS, and can be used to support the diagnosis.

1.1.2 Diagnostic tests

1.1.2.1 In people who meet the IBS diagnostic criteria, it is recommended that the following tests should be undertaken to exclude other diagnostic possibilities:

- full blood count (FBC)
- erythrocyte sedimentation rate (ESR) or plasma viscosity
- c-reactive protein (CRP)
- antibody testing for coeliac disease (endomysial antibodies [EMA] or tissue transglutaminase [TTG]).

1.1.2.2 The following tests should not be done to confirm diagnosis in people who meet the IBS diagnostic criteria:

- ultrasound
- rigid/flexible sigmoidoscopy
- colonoscopy; barium enema
- thyroid function test
- faecal ova and parasite test
- faecal occult blood
- hydrogen breath test (for lactose intolerance and bacterial overgrowth).

1.2 Clinical management of IBS

1.2.1 Dietary and lifestyle advice

1.2.1.1 People with IBS should be given information that explains the importance of self-help in effectively managing their IBS. This

should include information on general lifestyle, physical activity, diet and symptom-targeted medication.

1.2.1.2 Primary care clinicians should give lifestyle advice, encouraging people with IBS to make the most of their available leisure time and ensuring that they create relaxation time.

1.2.1.3 Primary care clinicians should assess the physical activity levels of people with IBS using the General Practice Physical Activity Questionnaire (GPAQ). All sedentary people should receive brief advice and counselling to encourage physical activity.

1.2.1.4 Primary care clinicians should assess diet and nutrition for all people with IBS and provide the following general advice.

- Have regular meals and take time to eat.
- Avoid missing meals, or leaving long gaps between meals.
- Drink at least 8 cups of fluid per day, especially water or herbal teas.
- Restrict tea and coffee to not more than 3 cups per day.
- Reduce intake of alcohol and fizzy drinks.
- It may be helpful to limit high-fibre cereals (such as wholemeal or high-fibre breads and wholegrains).
- Reduce intake of ‘resistant starch’, which is often found in processed or re-cooked foods, as it may increase symptoms.
- Limit fruit to 3 portions per day (approx 80 g each).
- People with diarrhoea should avoid sorbitol, which is found in sugar-free sweets (including chewing gum) and drinks, and some diabetic and slimming products.
- People with wind and bloating may find it helpful to eat oats (such as oat-based breakfast cereal or porridge) and linseeds (up to one tablespoon per day).

1.2.1.5 Primary care clinicians should review the fibre intake of a person with IBS, adjusting (usually decreasing) it according to effect while

monitoring symptoms. People with IBS should be actively discouraged from taking insoluble fibre (bran). If an increase in dietary fibre is advised, this should be soluble fibre (such as ispaghula powder) or foods high in soluble fibre (for example, oats).

1.2.1.6 Primary care clinicians should not discourage people with IBS from trying specific probiotic products. If people with IBS choose to do this, it should be for at least 4 weeks, and they should monitor their effect. The probiotic should be taken at the dose recommended by the manufacturer.

1.2.1.7 Primary care clinicians should discourage the use of aloe vera in the treatment of IBS.

1.2.1.8 If diet is considered to be a major factor in a person's symptoms and general lifestyle/dietary advice has been followed, they should be referred to a dietitian for advice, including single food avoidance and exclusion diet, to ensure that the diet remains well-balanced.

1.2.2 Pharmacological therapy

1.2.2.1 Primary care clinicians should consider prescribing antispasmodic agents, to be taken as required, alongside dietary and lifestyle advice.

1.2.2.2 Laxatives should be considered for the treatment of constipation in people with IBS, but they should be actively discouraged from taking lactulose.

1.2.2.3 Loperamide should be considered as first-line treatment for diarrhoea in people with IBS[1].

1.2.2.4 Primary care clinicians should advise people with IBS how to adjust laxative or antimotility agent doses according to the clinical

[1] In certain situations the daily dose of loperamide required may exceed 16 mg, and the GDG notes that this is an out of licence dose.

response. The dose should be titrated according to the stool consistency with the aim of achieving a soft well formed stool (corresponding to Bristol Stool Chart type 4).

1.2.2.5 Primary care clinicians should consider the benefit of prescribing tricyclics as second-line treatment for people with IBS. Treatment should be initiated at a low starting dose (5–10 mg equivalent of amytriptyline), once at night, which should be reviewed regularly. The dose can subsequently be increased, but does not usually need to exceed 30 mg.

1.2.2.6 Primary care clinicians should consider prescribing selective serotonin reuptake inhibitors (SSRIs) only when tricyclics have been shown to be ineffective.

1.2.2.7 Primary care clinicians should consider reported side effects when prescribing tricyclics or SSRIs. Following prescribing of any of these drugs for the first time at low doses for the treatment of pain/discomfort, the person should be followed up after 4 weeks and then at 6–12 monthly intervals thereafter.

1.2.3 Behavioural therapies

1.2.3.1 Primary care clinicians should consider referring for behavioural therapies (cognitive behavioural therapy, hypnotherapy, psychological therapy) people with IBS who do not respond to first-line therapies after 12 months and who develop a continuing symptom profile (described as refractory IBS).

1.2.4 Complementary and alternative medicine (CAM) therapies

1.2.4.1 Primary care clinicians should not encourage the use of acupuncture in the treatment of IBS

1.2.4.2 Primary care clinicians should not encourage the use of reflexology in the treatment of IBS.

1.2.5 Follow-up

1.2.5.1 Follow-up should be mutually agreed between primary care clinicians and people with IBS based on symptom response to interventions. This should form part of the annual patient review.

2 Notes on the scope of the guidance

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover. The scope of this guideline is available from www.nice.org.uk/page.aspx?o=322117.

The guideline covers adults (18 years and older) who present to primary care with symptoms suggestive of IBS, and the care that is provided by primary healthcare professionals, indicating where secondary care referral is appropriate. It does not cover:

- people with other gastrointestinal disorders such as non-ulcer dyspepsia or coeliac disease
- children and young people under 18 years of age.

How this guideline was developed

NICE commissioned the National Collaborating Centre for [add full name] to develop this guideline. The Centre established a Guideline Development Group (see appendix A), which reviewed the evidence and developed the recommendations. An independent Guideline Review Panel oversaw the development of the guideline (see appendix B).

There is more information in the booklet: 'The guideline development process: an overview for stakeholders, the public and the NHS' (third edition, published April 2007), which is available from www.nice.org.uk/guidelinesprocess or by telephoning 0870 1555 455 (quote reference N1233).

3 Implementation

The Healthcare Commission assesses the performance of NHS organisations in meeting core and developmental standards set by the Department of Health in 'Standards for better health', issued in July 2004. Implementation of clinical guidelines forms part of the developmental standard D2. Core standard C5

says that national agreed guidance should be taken into account when NHS organisations are planning and delivering care.

NICE has developed tools to help organisations implement this guidance (listed below). These are available on our website (www.nice.org.uk/CGXXX). *[NICE to amend list as needed at time of publication]*

- Slides highlighting key messages for local discussion.
- Costing tools:
  - costing report to estimate the national savings and costs associated with implementation
  - costing template to estimate the local costs and savings involved.
- Implementation advice on how to put the guidance into practice and national initiatives that support this locally.
- Audit criteria to monitor local practice.

4 Research recommendations

The Guideline Development Group has made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future.

4.1 Tricyclic antidepressants, SSRIs and SNRIs

Are low-dose tricyclic antidepressants (TCAs), SSRIs and serotonin and norepinephrine reuptake inhibitors (SNRIs) effective in the treatment of IBS as first-line therapy, and which is the more effective and safer option?

Why this is important

Reviews have shown that TCAs and SSRIs have each been compared with placebo, but not at low dose. In practice, TCAs are used at higher doses and concordance with treatment is poor because of side effects. GDG clinicians believe that at low doses (5–10 mg equivalent of amytriptyline), TCAs could be the treatment of choice for IBS, but there is a lack of evidence. Newer antidepressants, SNRIs, may be useful in the treatment of IBS pain. A large randomised trial is proposed, comparing an SSRI, a TCA, and an SNRI with placebo. Participants should be adults with a positive diagnosis of IBS,

stratified by type of IBS and randomised to treatments. The primary outcome should be global improvement in IBS symptoms. Health-related quality of life should also be measured. Adverse effects should be recorded. Study outcomes should be assessed at 12, 26 and 52 weeks after the start of therapy.

4.2 Behavioural therapies

Are behavioural therapies (psychological therapy, hypnotherapy and cognitive behavioural therapy [CBT]) equally effective in the management of IBS symptoms, either as first-line therapies in primary care, or in the treatment of people with IBS that is refractory to other treatments?

Why this is important

Reviews show some evidence of effect when comparing behavioural therapies with control, mainly in people with refractory IBS. Many trials are small in size. The behavioural therapies of psychological therapy, hypnotherapy and CBT are thought to be useful in helping people with IBS to cope with their symptoms, but it is unclear at what stage these should be given, including their use as first-line therapies in primary care. A large randomised trial is proposed, comparing CBT, hypnotherapy and psychological therapy (in particular psychodynamic interpersonal therapy). Participants should be adults with a positive diagnosis of IBS, and they should be stratified into those with and without refractory IBS and then randomised to treatments. The primary outcome should be global improvement in IBS symptoms. Health-related quality of life should also be measured. Adverse effects should be recorded. Study outcomes should be assessed at 12, 26 and 52 weeks after the start of therapy.

4.3 Refractory IBS

What factors contribute to refractory IBS?

Why this is important

Most individuals with IBS experience symptoms that are relatively short lived or that only trouble them on an intermittent basis. Some people, however,

develop chronic and severe symptoms that are difficult to treat. There are relatively few prospective studies that have investigated this problem.

A large, prospective, population-based cohort study is proposed, which would evaluate people in the community with IBS symptoms, according to measures of bowel symptomatology, physical symptom profile, psychological symptoms, childhood adversity, past history of psychiatric disorder, social supports, quality of life and other relevant potential predictors. Individuals would be re-evaluated 12 and 24 months later using similar measures. Baseline variables would be used to predict chronicity of symptoms, quality of life and healthcare utilisation at 12 months and at 24 months.

4.4 Relaxation and biofeedback

What is the effect of relaxation and biofeedback therapies on IBS symptoms and patient-related outcomes?

Why this is important

Reviews of biofeedback and relaxation therapies suggest a positive effect on the control of IBS symptoms, but evidence is limited and not sufficient to make recommendations. Patient representation within the group supports this view, from a personal and anecdotal perspective.

Recent developments in computer-aided biofeedback methods merit investigation. A large randomised trial is proposed to compare relaxation therapy, computer-aided biofeedback therapy and attention control in primary care. Participants should be adults with a positive diagnosis of IBS, and they should be stratified into those with and without refractory IBS, and then randomised to treatments. The primary outcome should be global improvement in IBS symptoms. Health-related quality of life should also be measured. Adverse effects should be recorded. Study outcomes should be assessed at 12, 26 and 52 weeks after the start of therapy. Qualitative data should be generated relating to how people with IBS perceive their IBS condition.

4.5 Physical activity

What is the effect of physical activity on IBS symptoms in adults?

Why this is important

To date there has been no comparative intervention study examining the effect of physical activity on IBS symptoms in adults independently or in combination with other lifestyle counselling. A large randomised trial is proposed, comparing physical activity with waiting list control or with usual activity. Participants should be adults with a positive IBS diagnosis and should be stratified by IBS type and then randomised to treatments. The physical activity dose should be moderate intensity physical activity (for example, walking, light group exercises) and could be delivered within a class structure (for example, as part of an IBS education class) or performed independently.

The primary outcome should be global improvement in IBS symptoms, with symptom scores being recorded using a validated scale. Health-related quality of life should also be measured. Data on adverse events should also be recorded. Study outcomes should be assessed at 12, 26 and 52 weeks post-intervention.

5 Other versions of this guideline

5.1 Full guideline

The full guideline, 'Irritable bowel syndrome in adults: Diagnosis and management of irritable bowel syndrome in primary care' contains details of the methods and evidence used to develop the guideline. It is published by the National Collaborating Centre for Nursing and Supportive Care, and is available from [NCC website details to be added], our website (www.nice.org.uk/CGXXXfullguideline) and the National Library for Health (www.nlh.nhs.uk). **[Note: these details will apply to the published full guideline.]**

5.2 Quick reference guide

A quick reference guide for healthcare professionals is available from www.nice.org.uk/CGXXXquickrefguide

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1XXX). **[Note: these details will apply when the guideline is published.]**

5.3 'Understanding NICE guidance'

Information for patients and carers ('Understanding NICE guidance') is available from www.nice.org.uk/CGXXXpublicinfo

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1XXX). **[Note: these details will apply when the guideline is published.]**

6 Related NICE guidance

Depression: management of depression in primary and secondary care. NICE clinical guideline 23 (2004). Available from www.nice.org.uk/CG023

Referral guidelines for suspected cancer. NICE clinical guideline 27 (2005). Available from www.nice.org.uk/CG027

Physical activity. NICE public health intervention guidance PH1002 (2006). Available from www.nice.org.uk/PHI002

7 Updating the guideline

NICE clinical guidelines are updated as needed so that recommendations take into account important new information. We check for new evidence 2 and 4 years after publication, to decide whether all or part of the guideline should be updated. If important new evidence is published at other times, we may decide to do a more rapid update of some recommendations.

Appendix A: The Guideline Development Group

Mr Joe Blanchard-Smith
Patient/carer representative, IBS Network

Dr Ian Bullock
Director, NCCNSC

Dr Jamie Dalrymple
Medical Practitioner, Norwich

Ms Sarah Davis
Senior Health Economist, NCCNSC

Ms Jackie Eastwood
Specialist Pharmacist in Gastroenterology, St. Mark's Hospital, Harrow

Dr Charles Foster
Senior Researcher, University of Oxford

Dr Jenny Gordon
Research and Development Fellow, NCCNSC

Mrs Jenny Gough
Nurse Consultant, Camden Primary Care Trust, London

Professor Elspeth Guthrie
Professor of Psychological Medicine & Medical Psychotherapy, Manchester Royal Infirmary

Dr Miranda Lomer
Post-Doctoral Research Fellow (Dietetics), St. Thomas' Hospital, London

Ms Marion Saunders
Patient/carer representative

Ms Theresa Shaw (Chair)
Chief Executive, Foundation of Nursing Studies, London

Dr Richard Stevens
General Practitioner, Oxford Health

Dr Maggie Westby
Senior Research and Development Fellow, NCCNSC

Professor Peter Whorwell (Clinical Lead)
Professor of Medicine and Gastroenterology, Wythenshawe Hospital, Manchester

Dr Mary Wilson
Nurse Specialist, Westwood Hospital, North Humberside

Appendix B: The Guideline Review Panel

The Guideline Review Panel is an independent panel that oversees the development of the guideline and takes responsibility for monitoring adherence to NICE guideline development processes. In particular, the panel ensures that stakeholder comments have been adequately considered and responded to. The panel includes members from the following perspectives: primary care, secondary care, lay, public health and industry.

[NICE to add]

[Name; style = Unnumbered bold heading]
[job title and location; style = NICE normal]

Appendix C: IBS algorithm