

# **Surgical site infection: prevention and treatment**

**Search strategies**

*NICE guideline <number>*

*Search strategies*

*October 2018*

*Commissioned by the National Institute  
for Health and Care Excellence*

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**Q1 Does the use nasal decontamination to eliminate Staphylococcus aureus (alone or in combination with other interventions) affect the rate of surgical site infection? (Update of the search strategy used in the 2008 version of the guideline)**

Sources searched to identify the clinical evidence:

Databases	Date searched	Version/files
Cochrane Central Register of Controlled Trials (CENTRAL)	15/03/2018	Issue 2 of 12, February 2018
Cochrane Database of Systematic Reviews (CDSR)	15/03/2018	Issue 3 of 12, March 2018
Database of Abstracts of Reviews of Effect (DARE)	15/03/2018	Issue 2 of 4, April 2015
Embase (Ovid)	15/03/2018	1974 to 2018 March 14
MEDLINE (Ovid)	15/03/2018	1946 to Present with Daily Update
MEDLINE In-Process (Ovid)	15/03/2018	1974 to 2018 March 14
CINAHL with full text (EBSCO)	15/03/2018	-
PubMed	15/03/2018	-
MHRA	15/03/2018	-

The MEDLINE search strategy is presented below. This was translated for use in all of the other databases listed. The aim of the search was to identify evidence for the clinical question being asked. Randomised Controlled Trial and Systematic Review filters were used to identify the study designs specified in the Review Protocol.

- 1 Surgical Wound Infection/
- 2 Wound Infection/
- 3 SURGICAL WOUND DEHISCENCE/
- 4 ((wound? or incision\* or suture\*) adj4 (infect\* or sepsis or septic\* or dehiscen\* or site\* or contaminat\* or disrupt\* or ruptur\* or separat\*)).tw.
- 5 (SSI or SSIs or SSTI or SSTIs).tw.
- 6 or/1-5
- 7 exp Specialties, Surgical/
- 8 exp Surgical Procedures, Operative/
- 9 surgery.fs.
- 10 (surger\* or surgical\* or operat\* or procedure\* or postop\* or post-op\* or post op\* or postsurg\* or post-surg\* or post surg\* or presurg\* or pre-surg\* or pre surg\* or preop\* or pre-op\* or pre op\*).tw.
- 11 exp Minimally Invasive Surgical Procedures/
- 12 (arthroscop\* or laparoscop\* or thoracoscop\* or endoscop\*).tw.

- 13 Infection Control/
- 14 (infection adj4 control).tw.
- 15 Postoperative Complications/
- 16 Preoperative care/
- 17 or/7-16
- 18 Staphylococcal Infections/
- 19 exp Staphylococcus aureus/
- 20 (staph\* adj4 aureus).tw.
- 21 (MRSA or MSSA).tw.
- 22 (methicillin adj4 resistant adj4 staph\*).tw.
- 23 "s aureus".tw.
- 24 Gram-positive Bacterial Infections/
- 25 ((gram-positive adj4 bacterial adj4 infection\*) or (gram adj4 positive adj4 bacterial adj4 infection\*)).tw.
- 26 Cross Infection/
- 27 (cross adj4 infection\*).tw.
- 28 ((health adj4 care adj4 associated adj4 infection\*) or (healthcare adj4 associated adj4 infection\*)).tw.
- 29 (hospital adj4 infection\*).tw.
- 30 nosocomial\*.tw.
- 31 exp Sepsis/
- 32 (blood adj4 poisoning\*).tw.
- 33 (sepsis or septic\* or pyaemi\* or pyohemi\*).tw.
- 34 or/18-33
- 35 17 and 34
- 36 6 or 35
- 37 exp Anti-Infective Agents, Local/
- 38 Chlorhexidine/
- 39 chlorhexidine.tw.
- 40 (naseptin or novalsan or tubulicid or "sebidan a" or mk 412a or mk-412a or mk412a).tw. (44)
- 41 (acriflex or bacticlens or bactigras or "cx powder" or cepton or chlorasept or chlorohex or clorhexitulle or corsodyl or curasept or dispray or eczmol or elgydium or hibidil or hibiscrub or hibitane or hydrex or periochip or perioguard or rotersept or savlon or serotulle or spotoway or sterexidine or steripod or gluconate or uniscrub or unisept or "uriflex c" or phiso-med or CB12 or cetrilens or chloraprep or Clearasil or covonia or cyteal or dermol or eludril or germolene or germoloid\* or hibi or hibicet or hibisol or instillagel or medi-swab or medi-wipe or mycil or nystaform\* or quinoderm or savlocleans or savlodil or sterets or steriwipe or tisept or torbetol or travasept or tri-ac or xylocaine).tw.
- 42 Mupirocin/
- 43 (mupirocin\* or bactroban).tw.
- 44 Povidone-Iodine/
- 45 ((povidone adj4 iodine) or povidone-iodine).tw.
- 46 ((povidine adj4 iodine) or povidine-iodine).tw.
- 47 (PVP-I or PVPi or PVP I or PVP-iodine or PVPiodine or pvp iodine or polyvinylpyrrolidoneiodine\* or polyvinylpyrrolidone-iodine\* or polyvinylpyrrolidone iodine\*).tw.
- 48 (alphadine\* or betadine\* or betaisodona or betasept or "brush off" or "cold sore lotion" or disadine\* or inadine or pharmadine\* or povidine\* or "savlon dry" or videne or codella).tw. (530)
- 49 (octenisan or octenide or octenidine or octeniderm or "win 41464" or "win 41464 2").tw. (168)
- 50 Decontamination/
- 51 decontaminat\*.tw.
- 52 decoloni\*.tw.

- 53 or/37-52
- 54 36 and 53
- 55 exp glycopeptides/
- 56 (glycopeptide\* or glucopeptide\* or macroglycopeptide\* or bleomycin\* or peptidoglycan\* or ristocetin\* or teicoplanin\* or vancomycin\*).tw.
- 57 55 or 56
- 58 exp Antibiotic Prophylaxis/
- 59 (antibiotic adj4 (prophyla\* or premedicat\*)).tw.
- 60 58 or 59
- 61 36 and 57 and 60
- 62 54 or 61
- 63 Nasal Cavity/
- 64 Nasal Mucosa/
- 65 Nasopharynx/
- 66 exp Oropharynx/
- 67 nares.tw.
- 68 nasal.tw.
- 69 (nose or noses).tw.
- 70 oropharyn\*.tw.
- 71 nasopharyn\*.tw. (28630)
- 72 pharyn\*.tw. (34295)
- 73 mouth.tw. (54514)
- 74 Mouth/ (19975)
- 75 (oral or orally).tw.
- 76 Mouthwashes/
- 77 (mouthwash\* or mouthrins\*).tw.
- 78 Administration, Intranasal/
- 79 (intranasal\* or intra nasal\* or intra-nasal\*).tw.
- 80 or/63-79
- 81 62 and 80
- 82 animals/ not humans/
- 83 81 not 82
- 84 limit 83 to english language
- 85 Randomized Controlled Trial.pt.
- 86 Controlled Clinical Trial.pt.
- 87 Clinical Trial.pt.
- 88 exp Clinical Trials as Topic/
- 89 Placebos/
- 90 Random Allocation/
- 91 Double-Blind Method/
- 92 Single-Blind Method/
- 93 Cross-Over Studies/
- 94 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 95 (random\$ adj3 allocat\$).tw.
- 96 placebo\$.tw.
- 97 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 98 (crossover\$ or (cross adj over\$)).tw.
- 99 or/85-98
- 100 Meta-Analysis.pt.
- 101 Network Meta-Analysis/
- 102 Meta-Analysis as Topic/

- 103 Review.pt.
- 104 exp Review Literature as Topic/
- 105 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 106 (review\$ or overview\$).ti.
- 107 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 108 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 109 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 110 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 111 (pool\$ adj2 (analy\$ or data)).tw.
- 112 (handsearch\$ or (hand adj3 search\$)).tw.
- 113 (manual\$ adj3 search\$).tw.
- 114 or/100-113
- 115 99 or 114
- 116 84 and 115

**Q2 Is the use of preoperative skin antiseptics clinically effective in the prevention of surgical site infection? (Update of the search strategy used in the 2008 version of the guideline)**

Databases	Date searched	Version/files
Cochrane Central Register of Controlled Trials (CENTRAL)	25/05/2018	Issue 4 of 12, April 2018
Cochrane Database of Systematic Reviews (CDSR)	25/05/2018	Issue 5 of 12, May 2018
Database of Abstracts of Reviews of Effect (DARE)	25/05/2018	Issue 2 of 4, April 2015
HTA	25/05/2018	Issue 4 of 4, October 2016
Embase (Ovid)	25/05/2018	1974 to 2018 May 24
MEDLINE (Ovid)	25/05/2018	1946 to Present with Daily Update
MEDLINE In-Process (Ovid)	25/05/2018	May 24, 2018
MEDLINE Epub Ahead of Print <sup>a</sup>	25/05/2018	May 24, 2018
CINAHL Plus with full text (EBSCO)	25/05/2018	-
MHRA – Drug Safety Alerts	25/05/2018	-

The MEDLINE search strategy is presented below. This was translated for use in all of the other databases listed. The aim of the search was to identify evidence for the clinical question being asked. Randomised Controlled Trial and Systematic Review filters were used to identify the study designs specified in the Review Protocol.

- 1 Surgical Wound Infection/
- 2 Wound Infection/
- 3 SURGICAL WOUND DEHISCENCE/
- 4 Infection Control/
- 5 (infection adj4 control).tw.
- 6 Postoperative Complications/
- 7 ((wound? or incision\* or suture\*) adj4 (infect\* or sepsis or septic\* or dehiscen\* or site\* or contaminat\* or disrupt\* or ruptur\* or separat\*)).tw.
- 8 (SSI or SSIs or SSTI or SSTIs).tw.
- 9 Bacterial Infections/pc [Prevention & Control]
- 10 exp Specialties, surgical/
- 11 exp Surgical Procedures, Operative/
- 12 surgery.fs. (
- 13 (surger\* or surgical\* or operat\* or procedure\*).tw.
- 14 exp Minimally Invasive Surgical Procedures/



- 15 (arthroscop\* or laparoscop\* or thoracoscop\* or endoscop\*).tw.
- 16 or/1-15
- 17 Water/ or Ethanol/ or Disinfection/ or exp Detergents/
- 18 (disinfect\* or pre-disinfect\* or pre-disinfect\* or pre-disinfect\* or anti-infect\* or anti-infect\* or anti-infect\* or anti-infect\* or antisept\* or alcohol\* or ethanol or aqueous or aqua or water).tw.
- 19 (anti-microbial\* or anti-microbial\* or antimicrobial\*).tw.
- 20 Iodine/ or Iodine Compounds/
- 21 iodine\*.tw.
- 22 ((iod or iodide) adj4 derivative\*).tw.
- 23 (iodinated adj4 compound\*).tw.
- 24 (bioiodine or steribath or thysat or estroven or nasciodine or tcp).tw.
- 25 Chlorhexidine/
- 26 (chlorhexidine or CHG).tw.
- 27 (novalsan or tubulicid or "sebidan a" or mk 412a or mk-412a or mk412a).tw.
- 28 (acriflex or bacticlens or bactigras or "cx powder" or cepton or chlorasept or chlorohex or clorhexitulle or corsodyl or curasept or dispray or eczmol or elgydium or hibidil or hibiscrub or hibitane or hydrex or periochip or perioguard or rotersept or savlon or serotulle or spotoway or sterexidine or steripod or gluconate or uniscrub or unisept or "uriflex c" or phiso-med or CB12 or cetriclens or chloraprep or Clearasil or covonia or cyteal or dermol or eludril or germolene or germoloid\* or hibi or hibicet or hibisol or instillagel or medi-swab or medi-wipe or mycil or nystaform\* or quinoderm or savlociens or savlodil or sterets or steriwipe or tisept or torbetol or travasept or tri-ac or xylocaine).tw.
- 29 iodophor\*.tw.
- 30 Povidone-Iodine/
- 31 ((povidone adj4 iodine) or povidone-iodine).tw.
- 32 ((povidine adj4 iodine) or povidine-iodine).tw.
- 33 (PVP-I or PVPi or PVP I or PVP-iodine or PVPiodine or pvp iodine or polyvinylpyrrolidoneiodine\* or polyvinylpyrrolidone-iodine\* or polyvinylpyrrolidone iodine\*).tw.
- 34 (alphadine\* or betadine\* or betaisodona or betasept or "brush off" or "cold sore lotion" or disadine\* or inadine or pharmadine\* or povidine\* or "savlon dry" or videne or codella).tw.
- 35 or/17-34
- 36 administration, topical/ or administration, cutaneous/ or Skin/
- 37 (skin or topical\* or cutan\* or dermal\* or dermis\* or local\* or cutis or derma or epicutaneous or transcutan\* or percutan\*).tw.
- 38 36 or 37
- 39 35 and 38
- 40 exp Anti-Infective Agents, Local/
- 41 39 or 40
- 42 Preoperative Care/ or Preoperative Period/
- 43 (presurg\* or pre-surg\* or pre-surg\* or preop\* or pre-op\* or pre-op or periop\* or peri-op\* or peri-op\* or intraop\* or perop\*).tw.
- 44 Perioperative Care/ or Perioperative Period/ or Perioperative Nursing/ or Intraoperative care/ or Intraoperative Period/
- 45 ((before or plan\* or ahead\* or prepar\* or prior or during or duration) adj4 (surg\* or operat\* or procedure\* or repair\* or care\* or implant\*)).tw.
- 46 or/42-45
- 47 16 and 41 and 46
- 48 animals/ not humans/
- 49 47 not 48
- 50 limit 49 to english language
- 51 Randomized Controlled Trial.pt.



**Q3 Is the application of antiseptics and antibiotics in the operative field before wound closure clinically effective in reducing surgical site infection rates? (Update of the search strategy used in the 2008 version of the guideline)**

Databases	Date searched	Version/files
Cochrane Central Register of Controlled Trials (CENTRAL)	03/05/2018	Issue 3 of 12, March 2018
Cochrane Database of Systematic Reviews (CDSR)	03/05/2018	Issue 5 of 12, May 2018
Database of Abstracts of Reviews of Effect (DARE)	03/05/2018	Issue 2 of 4, April 2015
HTA	03/05/2018	Issue 4 of 4, October 2016
Embase (Ovid)	03/05/2018	1974 to 2018 May 02
MEDLINE (Ovid)	03/05/2018	1946 to Present with Daily Update
MEDLINE In-Process (Ovid)	03/05/2018	May 02, 2018
MEDLINE Epub Ahead of Print <sup>b</sup>	03/05/2018	May 02, 2018
CINAHL Plus with full text (EBSCO)	03/05/2018	-
MHRA – Drug Safety Alerts	03/05/2018	-

The MEDLINE search strategy is presented below. This was translated for use in all of the other databases listed. The aim of the search was to identify evidence for the clinical question being asked. Randomised Controlled Trial and Systematic Review filters were used to identify the study designs specified in the Review Protocol.

- 1 Surgical Wound Infection/
- 2 Wound Infection/
- 3 SURGICAL WOUND DEHISCENCE/
- 4 Infection Control/
- 5 (infection adj4 control).tw.
- 6 Postoperative Complications/
- 7 ((wound? or incision\* or suture\*) adj4 (infect\* or sepsis or septic\* or dehiscen\* or site\* or contamin\* or disrupt\* or rupture\* or separat\*)).tw.
- 8 (SSI or SSIs or SSTI or SSTIs).tw.
- 9 Bacterial Infections/pc [Prevention & Control]
- 10 exp Specialties Surgical/
- 11 exp Surgical Procedures, Operative/
- 12 surgery.fs.
- 13 (surger\* or surgical\* or operat\* or procedure\*).tw.

- 14 exp Minimally Invasive Surgical Procedures/
- 15 (arthroscopy\* or laparoscop\* or thoracoscop\* or endoscop\*).tw.
- 16 or/1-15
- 17 exp Anti-Infective Agents, Local/
- 18 Iodine/ or Iodine Compounds/
- 19 iodine\*.tw.
- 20 ((iod or iodide) adj4 derivative\*).tw.
- 21 (iodinated adj4 compound\*).tw.
- 22 (bioiodine or steribath or thysat or estroven or nasciodine or tcp).tw.
- 23 iodophor\*.tw.
- 24 Povidone-Iodine/
- 25 ((povidone adj4 iodine) or povidone-iodine).tw.
- 26 ((povidine adj4 iodine) or povidine-iodine).tw.
- 27 (PVP-I or PVPI or PVP I or PVP-iodine or PVPiodine or pvp iodine or polyvinylpyrrolidoneiodine\* or polyvinylpyrrolidone-iodine\* or polyvinylpyrrolidone iodine\*).tw.
- 28 (alphadine\* or betadine\* or betaisodona or betasept or "brush off" or "cold sore lotion" or disadine\* or inadine or pharmadine\* or povidine\* or "savlon dry" or videne or codella).tw.
- 29 (octenisan or octenide or octenidine).tw.
- 30 Chlorhexidine/
- 31 chlorhexidine.tw.
- 32 (novalsan or tubulicid or "sebidan a" or mk 412a or mk-412a or mk412a).tw.
- 33 (acriflex or bacticlens or bactigras or "cx powder" or cepton or chlorasept or chlorohex or clorhexitulle or corsodyl or curasept or dispray or eczmol or elgydium or hibidil or hibiscrub or hibitane or hydrex or periochip or perioguard or rotersept or savlon or serotulle or spotoway or sterexidine or steripod or gluconate or uniscrub or unisept or "uriflex c" or phiso-med or CB12 or cetriclens or chloraprep or Clearasil or covonia or cyteal or dermol or eludril or germolene or germoloid\* or hibi or hibicet or hibisol or instillagel or medi-swab or medi-wipe or mycil or nystaform\* or quinoderm or savlocLens or savlodil or sterets or steriwipe or tisept or torbetol or travasept or tri-ac or xylocaine).tw.
- 34 Disinfection/
- 35 exp Detergents/
- 36 exp Anti-Bacterial Agents/ or Antibiotic Prophylaxis/
- 37 (antimicrob\* or anti microb\* or antibiotic\* or anti biotic\*).tw.
- 38 ((anti-infective\* or antiinfective\* or antibacterial\* or anti-bacteria\*) adj (agent\* or drug\*)).tw.
- 39 microbicide?.tw.
- 40 (bacteriocide? or bacteriocidal agent?).tw.
- 41 carbapenem\*.tw.
- 42 exp Carbapenems/
- 43 exp Cephalosporins/
- 44 cephalosporin\*.tw.
- 45 exp Cephamycins/
- 46 (cephamycin\* or cefoxitin\*).tw.
- 47 exp Monobactams/
- 48 monobactam\*.tw.
- 49 exp Penicillins/
- 50 Penicillin\*.tw.
- 51 exp Thienamycins/
- 52 Thienamycin\*.tw.
- 53 exp Macrolides/
- 54 macrolide\*.tw.
- 55 exp Fluoroquinolones/

- 56 Fluoroquinolone\*.tw.
- 57 exp Sulfonamides/
- 58 Sulfonamide\*.tw.
- 59 exp Tetracyclines/
- 60 Tetracycline\*.tw.
- 61 exp Aminoglycosides/
- 62 Aminoglycoside\*.tw.
- 63 Clindamycin/
- 64 (Clindamycin\* or dalacin\* or zindaclin or duac or refobacin or treclin).tw.
- 65 exp Nitroimidazoles/
- 66 Nitroimidazole\*.tw.
- 67 exp Gentamicins/ or Cefuroxime/ or Metronidazole/ or exp Ciprofloxacin/ or Vancomycin/
- 68 (gentamicin\* or cidomycin or garamycin or genticin or lugacin or collatemp or gentisone or palacos or refobacin or septocoll or septopal or vipsogal or cefuroxime\* or aprokam or ximaract or zinacef or zinnat or metronidazole\* or acea or anabact or elyzol or flagyl or metrogel or metrolyl or metrosa or metrotop or metrozol or nidazol or noritate or norzol or rosiced or rozex or vaginyl or zadstat or zidoval or zyomet or entamizole or helimet or ciprofloxacin\* or cetraxal or ciloxan or ciproxin or cilodex or vancomycin\* or vancocin).tw.
- 69 Antisepsis/
- 70 (antiseptic? or antisepsis).tw.
- 71 or/18-70
- 72 exp Skin/
- 73 skin.tw.
- 74 administration, topical/ or administration, cutaneous/
- 75 (skin or topical\* or cutan\* or dermal\* or dermis\* or local\* or cutis or derma or epicutaneous).tw.
- 76 (transcutan\* or percutan\* or cutan\*).tw.
- 77 Surgical wound/
- 78 (wound\* or incision\*).tw.
- 79 or/72-78
- 80 ((before or prior to or previous to or preced\*) adj4 (clos\* or stitch\* or stapl\*)).tw.
- 81 (pre closure or preclosure or pre sutur\* or presutur\* or pre-suture\*).tw.
- 82 Intraoperative care/ or Intraoperative Period/
- 83 (intraop\* or intrawound\*).tw.
- 84 or/80-83
- 85 71 and 79
- 86 17 or 85
- 87 16 and 86
- 88 84 and 87
- 89 (collagen adj4 (implant\* or sponge\* or bead\* or gel\*)).tw.
- 90 Surgical Sponges/ or Drug Implants/
- 91 Powders/
- 92 powder\*.tw.
- 93 exp Bone Cements/
- 94 (bone adj4 cement\*).tw.
- 95 or/89-94
- 96 16 and 71 and 95
- 97 88 or 96
- 98 animals/ not humans/
- 99 97 not 98
- 100 limit 99 to english language

- 101 Randomized Controlled Trial.pt.
- 102 Controlled Clinical Trial.pt.
- 103 Clinical Trial.pt.
- 104 exp Clinical Trials as Topic/
- 105 Placebos/
- 106 Random Allocation/
- 107 Double-Blind Method/
- 108 Single-Blind Method/
- 109 Cross-Over Studies/
- 110 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 111 (random\$ adj3 allocat\$).tw.
- 112 placebo\$.tw.
- 113 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 114 (crossover\$ or (cross adj over\$)).tw.
- 115 or/101-114
- 116 Meta-Analysis.pt.
- 117 Network Meta-Analysis/
- 118 Meta-Analysis as Topic/
- 119 Review.pt.
- 120 exp Review Literature as Topic/
- 121 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 122 (review\$ or overview\$).ti.
- 123 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 124 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 125 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 126 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 127 (pool\$ adj2 (analy\$ or data)).tw.
- 128 (handsearch\$ or (hand adj3 search\$)).tw.
- 129 (manual\$ adj3 search\$).tw.
- 130 or/116-129
- 131 115 or 130
- 132 100 and 131

**Q4 Which closure methods are clinically effective in the prevention of a surgical site infection?  
(Update of the search strategy used in the 2008 version of the guideline)**

Databases	Date searched	Version/files
Cochrane Central Register of Controlled Trials (CENTRAL)	29/06/2018	Issue 6 of 12, June 2018
Cochrane Database of Systematic Reviews (CDSR)	29/06/2018	Issue 6 of 12, June 2018
Database of Abstracts of Reviews of Effect (DARE)	29/06/2018	Issue 2 of 4, April 2015
HTA	29/06/2018	Issue 4 of 4, October 2016
Embase (Ovid)	29/06/2018	1974 to 2018 June 28
MEDLINE (Ovid)	29/06/2018	1946 to Present with Daily Update
MEDLINE In-Process (Ovid)	29/06/2018	June 28, 2018
MEDLINE Epub Ahead of Print <sup>c</sup>	29/06/2018	June 28, 2018
CINAHL Plus with full text (EBSCO)	29/06/2018	-
MHRA – Drug Safety Alerts	29/06/2018	-

The MEDLINE search strategy is presented below. This was translated for use in all of the other databases listed. The aim of the search was to identify evidence for the clinical question being asked. Randomised Controlled Trial and Systematic Review filters were used to identify the study designs specified in the Review Protocol.

- 1 Surgical Wound Infection/
- 2 Wound Infection/
- 3 SURGICAL WOUND DEHISCENCE/
- 4 Infection Control/
- 5 (infection adj4 control).tw.
- 6 Postoperative Complications/
- 7 ((wound? or incision\* or suture\*) adj4 (infect\* or sepsis or septic\* or dehiscen\* or site\* or contamin\* or disrupt\* or rupture\* or separat\*)).tw.
- 8 (SSI or SSIs or SSTI or SSTIs).tw.
- 9 Bacterial Infections/pc [Prevention & Control]
- 10 ((post operative\* or postoperative\* or post surgical\* or postsurgical\*) adj4 (infect\* or sepsis or septic\*)).tw.
- 11 or/1-10
- 12 Sutures/
- 13 (suture? or stitch\*).tw.

- 14 Surgical Tape/
- 15 exp Tissue Adhesives/
- 16 ((tape? or adhesive?) adj4 (skin or tissue or surg\*)).tw.
- 17 Surgical stapling/
- 18 staple?.tw.
- 19 (surg\* adj4 stapling).tw.
- 20 suture techniques/
- 21 (glue\* adj4 (skin or tissue or surg\*)).tw.
- 22 (skin adj4 sealant\*).tw.
- 23 ((wound? or incision\* or skin or surg\*) adj4 closure).tw.
- 24 (biologic\* adj4 glue\*).tw.
- 25 (fibrin\* adj4 (glue\* or sealant\*)).tw.
- 26 (clip? adj4 (skin or tissue or surg\*)).tw.
- 27 or/12-26
- 28 11 and 27 (
- 29 animals/ not humans/
- 30 28 not 29
- 31 limit 30 to english language
- 32 Randomized Controlled Trial.pt.
- 33 Controlled Clinical Trial.pt.
- 34 Clinical Trial.pt.
- 35 exp Clinical Trials as Topic/
- 36 Placebos/
- 37 Random Allocation/
- 38 Double-Blind Method/
- 39 Single-Blind Method/
- 40 Cross-Over Studies/
- 41 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 42 (random\$ adj3 allocat\$).tw.
- 43 placebo\$.tw.
- 44 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 45 (crossover\$ or (cross adj over\$)).tw.
- 46 or/32-45
- 47 Meta-Analysis.pt.
- 48 Network Meta-Analysis/
- 49 Meta-Analysis as Topic/
- 50 Review.pt.
- 51 exp Review Literature as Topic/
- 52 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 53 (review\$ or overview\$).ti.
- 54 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 55 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 56 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 57 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 58 (pool\$ adj2 (analy\$ or data)).tw.
- 59 (handsearch\$ or (hand adj3 search\$)).tw.
- 60 (manual\$ adj3 search\$).tw.
- 61 or/47-60
- 62 46 or 61
- 63 31 and 62
- 64 limit 63 to ed=20070901-20180629



### Economic evaluations and quality of life data

Sources searched to identify economic evaluations:

Databases
Embase (Ovid)
MEDLINE (Ovid)
MEDLINE In-Process (Ovid)
EconLit (Ovid)
NHS Economic Evaluation Database (NHS EED) (legacy database)
Health Technology Assessment (HTA Database)

Search filters to retrieve economic evaluations and quality of life papers were appended to all 4 of the strategies to identify relevant evidence. The MEDLINE economic evaluations and quality of life search filters are presented below. They were translated for use in MEDLINE in Process and Embase databases.

#### Economic evaluations

1. Economics/
2. exp "Costs and Cost Analysis"/
3. Economics, Dental/
4. exp Economics, Hospital/
5. exp Economics, Medical/
6. Economics, Nursing/
7. Economics, Pharmaceutical/
8. Budgets/
9. exp Models, Economic/
10. Markov Chains/
11. Monte Carlo Method/
12. Decision Trees/
13. econom\$.tw.
14. cba.tw.
15. cea.tw.
16. cua.tw.
17. markov\$.tw.
18. (monte adj carlo).tw.
19. (decision adj3 (tree\$ or analys\$)).tw.
20. (cost or costs or costing\$ or costly or costed).tw.
21. (price\$ or pricing\$).tw.
22. budget\$.tw.
23. expenditure\$.tw.
24. (value adj3 (money or monetary)).tw.

25. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
26. or/1-25

#### Quality of Life

1. "Quality of Life"/
2. quality of life.tw.
3. "Value of Life"/
4. Quality-Adjusted Life Years/
5. quality adjusted life.tw.
6. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
7. disability adjusted life.tw.
8. daly\$.tw.
9. Health Status Indicators/
10. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
11. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
12. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
13. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
14. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
15. (euroqol or euro qol or eq5d or eq 5d).tw.
16. (qol or hql or hqol or hrqol).tw.
17. (hye or hyes).tw.
18. health\$ year\$ equivalent\$.tw.
19. utilit\$.tw.
20. (hui or hui1 or hui2 or hui3).tw.
21. disutili\$.tw.
22. rosser.tw.
23. quality of wellbeing.tw.
24. quality of well-being.tw.
25. qwb.tw.
26. willingness to pay.tw.
27. standard gamble\$.tw.
28. time trade off.tw.
29. time tradeoff.tw.
30. tto.tw.
31. or/1-30