

Guideline topic: Meningococcal Disease

General comments

Search coverage

Patient searches (run on 18th March 2005)

The patient search stem was run against both the new SIGN patient strategy. 26 themes were determined from the 79 records: Amputation; Delirious Delusions; Diagnostic Tools (as aids to decision-making); Diagnostic Uncertainty; Familial Stress; Follow-up/Long-term Outcomes; Hearing Loss; Hearing Loss – Cochlear Implant; Immunisation; Immunisation - Adverse Reactions; Immunisation – Economics; Immunisation - Hotline/Education; Immunisation - Parental Rejection; Immunisation – Pregnancy; Immunisation - Students/Teenagers; Language Development; Neurological/Psychiatric Issues; Outbreak Management; Parental Knowledge; Parental Support; Parents' Utilities (possibly linked to follow-up); Patients Without a Spleen; Public Health; Risk Factors; Siblings' Risk; and Visual Impairment

Databases covered: **Medline, Embase, CINAHL, HMIC, Caredata**

Dates covered: 2000-2005

Total hits:

1174

Pre-sifted result:

79

Guidelines

Various websites were searched for guidelines that were based on a systematic review of the literature.

Websites searched:

Agency for Health Care Research and Quality (AHRQ) <http://www.ahrq.gov/>

ASERNIP-S <http://www.racs.edu.au/open/asernip-s.htm>

Canadian Medical Association <http://mdm.ca/cpgsnew/cpgs/index.asp>

Centre for Clinical Effectiveness (Australia)

<http://www.med.monash.edu.au/healthservices/cce/>

Health Technology Assessment <http://www.hta.nhsweb.nhs.uk/>

NHS Centre for Reviews and Dissemination

<http://www.york.ac.uk/inst/crd/welcome.htm>

NHS Quality Improvement Scotland <http://www.nhshealthquality.org>

National Institute for Clinical Excellence (NICE) <http://www.nice.org.uk/>

National Electronic Library for Health <http://rms.nelh.nhs.uk/guidelinesfinder/>

National Guideline Clearinghouse <http://www.guidelines.gov/index.asp>

National Health and Medical Research Council (NHMRC)

<http://www.health.gov.au/nhmrc/publications/index.htm>

New Zealand Guidelines Group <http://www.nzgg.org.nz/>

Swedish Council on Technology Assessment in Health Care (SBU)

<http://www.sbu.se/admin/index.asp>

TRIP Database <http://www.tripdatabase.com/>

US National Institutes of Health <http://www.nih.gov/>

Databases covered:

Total hits: 8

Systematic reviews: A search for systematic reviews was run on 13 February 2006. The main search stem was used (see below).

Databases covered: Medline, Embase, cinahl, Cochrane and PsycInfo

Dates covered: 2000-06

Total hits: 432			Pre-sifted result: 121			Sifted result:81		
<p>No Filter: This is for searches that were ran, but not limited to any study type in particular. i.e. all study types were picked up.</p> <p>KQ1 03-06: Search ran 17 February 2006</p> <p>KQ1_3 00-02: Search ran September 2006</p> <p>KQ3_12: Search ran May 2006</p> <p>KQ4_5 1990-99: Search ran January 2007</p> <p>KQ6: Search ran 27 April 2006</p> <p>KQ12 00-02: Search ran April 2007</p> <p>KQ13: Search ran March 2006</p> <p>KQ15: Search ran April 2006</p>								
Databases covered: Medline, Embase, cinahl, Cochrane, psycInfo						Dates covered:		
						KQ1: 2003-06 KQ1_3: 2000-02 KQ3_12: 2003-06 KQ4_5: 1990-99 KQ6: 2000-06 KQ12: 2000-02 KQ13: 2000-06 KQ15:2000-06		
Total hits:			Pre-sifted result:			Sifted result:		
KQ1 03-06: 6208			KQ1 03-06: 187			KQ1 03-06: 29		
KQ1_3 00-02: 9829			KQ1_3 00-02: 314			KQ1_3 00-02: 12		
KQ3_12: 9000			KQ3_12: 606			KQ3_12: 16		
KQ4_5 90-99: 2078			KQ4_5 90-99: 109			KQ4_5 90-99: 0		
KQ6: 907			KQ6: 73			KQ6: 6		
KQ12 00-02: 2003			KQ12 00-02: 795			KQ12 00-02: 107		
KQ13: 1326			KQ13: 194			KQ13:43		
KQ15: 821			KQ15: 96			KQ15: 35		

RCTs

KQ2: Search ran May 2006

KQ4_5_9_10: Search ran May 2006

KQ7_18_19: Search ran April 2006

KQ8_17: Search ran May 2006

KQ11: Search ran May 2006

KQ16: Search ran May 2006

KQ20 ICU interventions: Search ran June 2006

KQ20 ICU interventions 95_99: Search ran October 2006 (just ECMO and haemofiltration)

KQ20 Steroids: Search ran September 2006

KQ20 ECMO haemofiltration 95_99: search ran October 2006 (search terms from ICU interventions search)

KQ21: Search ran June 2006

KQ21 top-up (PAF and antithrombin 3): Search ran October 2006

KQ22_23: Search ran April 2006

KQ22_23 1990-1999: Search ran September 2006 (RCTs and OBS)

KQ 24_25: Search ran 30 March 2006

KQ 24_25 1995_99: Search ran September 2006

KQ24 top_up search: Search ran September 2006 (RCTs and OBS)

KQ24_25 PICU and Critical Illness: Search ran November 2006 (RCTs and OBS)

Databases covered: Medline, Embase, cinahl, psycinfo and cochrane

Dates covered: 2000-06

<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
KQ2: 726	KQ2: 15	KQ2: 0
KQ4_5_9_10: 1742	KQ4_5_9_10: 382	KQ4_5_9_10: 16
KQ7_18_19: 1426	KQ7_18_19: 32	KQ7_18_19: 8
KQ8_17: 4274	KQ8_17: 468	KQ8_17:
KQ11: 624	KQ11: 72	KQ11: 0
KQ16:	KQ16: 94	KQ16: 11
KQ20_ICU intervention: 1635	KQ20_ICU intervention: 163	KQ20_ICU intervention: 32
KQ20_ICU_interventions 95_99:166	KQ20_ICU_interventions 95_99:15	KQ20_ICU_interventions 95_99:
KQ20 Steroids: 1732	KQ20 Steroids:79	KQ20 Steroids:
KQ21: 2946	KQ21: 36	KQ21: 12
KQ21 top-up (PAF and antithrombin 3): 190	KQ21 top-up (PAF and antithrombin 3): 26	KQ21 top-up (PAF and antithrombin 3): 0
KQ22_23: 280	KQ22_23: 12	KQ22_23: 0
KQ22_23 1990-1999 (RCT and OBS): 1156	KQ22_23 1990-1999 (RCT and OBS): 74	KQ22_23 1990-1999 (RCT and OBS): 8
KQ 24_25: 1830	KQ 24_25: 10	KQ 24_25: 1
KQ 24_25 1995_99:1793	KQ 24_25 1995_99:32	KQ 24_25 1995_99:1
KQ24 top_up search (RCT and OBS): 4763	KQ24 top_up search (RCT and OBS):87	KQ24 top_up search (RCT and OBS): 5
KQ24_25 PICU and Critical Illness: 2858	KQ24_25 PICU and Critical Illness: 233	KQ24_25 PICU and Critical Illness: 17

Observational studies

KQ2 OBS_DIA: Search ran May 2006

KQ4_5_9_10: Search ran May 2006

KQ8: Search ran September 2006

KQ7_18_19: Search ran April 2006

KQ11: Search ran May 2006

KQ16: Search ran May 2006

KQ20: Search ran September 2006

KQ20 ICU_interventions 95_99: Search ran October 2006 (just ECMO and haemofiltration)

KQ21: Search ran September 2006

KQ22_23 2000-06: Search ran April 2006

KQ22_23 1990-99: Search ran September 2006

KQ 24_25: Search ran 30 March 2006

KQ 24_25 1995_99: Search ran September 2006

KQ25 top up: Nov 2006 Broadened search to PICU and Critical illness: Search ran November 2006

Databases covered: Medline, Embase, cinahl, psycinfo and cochrane

Dates covered: 2000-06

<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
KQ2: OBS_DIA: 3235	KQ2: OBS_DIA: 316	KQ2: OBS_DIA: 10
KQ4_5_9_10: 747	KQ4_5_9_10: 377	KQ4_5_9_10: 38
KQ8: 2835	KQ8:	KQ8:
KQ7_18_19: 2507	KQ7_18_19: 309	KQ7_18_19: 40
KQ11: 549	KQ11: 202	KQ11: 1
KQ16: 1495	KQ16: 182	KQ16: 12
KQ20:2447	KQ20: 145	KQ20:19
KQ20 ICU_interventions 95_99:	KQ20 ICU_interventions 95_99: 67	KQ20 ICU_interventions 95_99:
KQ21: 1277	KQ21: 208	KQ21: 17
KQ22_23 2000-06: 505	KQ22_23 2000-06: 77	KQ22_23 2000-06: 7
KQ22_23 1990-99: 1156	KQ22_23 1990-99: 74	KQ22_23 1990-99: 8
KQ 24_25: 2561	KQ 24_25: 206	KQ 24_25: 25
KQ 24_25 1995_99: 2809	KQ 24_25 1995_99: 72	KQ 24_25 1995_99: 8
KQ25 top up: 2858	KQ25 top up: 233	KQ25 top up: 17
Diagnostic studies		
KQ14: Early Investigations		
<i>Databases covered: Medline, Embase, cinahl</i>		<i>Dates covered: 2000-06</i>
<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
KQ14:	KQ14: 463	KQ14: 72
Economic studies		
The main search stem was used		
<i>Databases covered: NEED</i>		<i>Dates covered: 1999-2006</i>
<i>Total hits: 47</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
Supplementary searches:		
KQ22 & 23: from the relevant literature from the systematic search, one of the group members did a hand-search of the reference lists.		
<i>Databases covered: N/A</i>		<i>Dates covered: N/A</i>
<i>Total hits:</i>	<i>Pre-sifted result: N/A</i>	<i>Sifted result: N/A</i>
Update Searches		
<i>Afetr the national meeting, searches were run for any reviews, rcts or observational studies that were published since the original searches.</i>		
<i>Databases covered: Medline, Embase, CINAHL, PsycInfo, The Cochrane Library</i>		<i>Dates covered: 06-07</i>

<i>Total hits:</i> Systematic Reviews: 414 RCTs: 1825 Observationals: 1748	<i>Pre-sifted results:</i> Systematic Reviews: 35 RCTs: 92 Observationals: 199	<i>Sifted result:</i> Systematic Reviews: 8 RCTs: 7 Observationals: 27
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Search strategies

The following are listings of the main Medline strategies used for this guideline. All conventions and symbols are from the Ovid implementation of Medline. Strategies used in other databases were substantially the same, though different terminology may have been used to take account of different thesaurii used in non-Medline databases. Search filters were added to identify studies of a particular type (guideline, systematic review, etc.) Listings of the search filters used by SIGN can be found on the SIGN Web site.

Patient stem:

1. exp meningitis, bacterial/
2. exp meningococcal infections/
3. meningitis.tw.
4. (meningococcal or meningiococcal or meningococcal).tw.
5. meningococc\$.tw.
6. exp neisseria meningitidis/
7. neisseria meningitidis.tw.
8. meningococcal vaccines/
9. septicemia/
10. (septicemi\$ or septicami\$ or blood poison\$.tw.
11. or/1-10

Main stem:

- 1 exp Meningococcal Infections/ (2536)
- 2 (meningoc\$ or meningit\$.tw. (12366)
- 3 exp Neisseria meningitidis/ (2296)
- 4 exp Meningitis, Bacterial/ (4701)
- 5 exp Meningococcal Vaccines/ (850)
- 6 exp Septicemia/ (19744)
- 7 exp Sepsis/ (26198)
- 8 (sepsis\$ or septic\$.tw. (27864)
- 9 or/1-8 (32286)

KQ1: Signs and Symptoms. Combined with main stem. No Filter.

1. exp "signs and symptoms"/ (349776)
2. symptom\$.tw. (212016)
3. exp Fever/ (8881)
4. fever\$.tw. (30709)
5. exp Neck Pain/ (1494)
6. ((stiff\$ or sore or pain\$) adj3 neck\$.tw. (2230)
7. exp Headache/ (5691)
8. headach\$.tw. (16656)
9. (sore\$ adj2 head).tw. (1)
10. exp Exanthema/ (1296)
11. (rash\$ or exanthem\$.tw. (6101)
12. exp Photophobia/ (154)
13. photophob\$.tw. (687)
14. (light\$ adj3 sensit\$.tw. (1231)
15. exp Vomiting/ (6429)
16. (vomit\$ or nausea\$.tw. (18560)
17. exp Dizziness/ (1225)
18. (dizz\$ or lighthead\$ or light-head\$.tw. (3690)
19. ((rapid\$ or fast\$ or quick\$) adj3 breath\$.tw. (414)
20. (drowsi\$ or letharg\$.tw. (2606)

21. exp Crying/ (522)
22. (cry or crying\$.tw. (1696)
23. ((sore or pain) adj3 leg).tw. (959)
24. collaps\$.tw. (9175)
25. exp pallor/ (51)
26. (pallor or (pale\$ adj2 skin\$)).tw. (660)
27. or/1-26

KQ2: second assess: RCT_OBS_DIA

1. exp disease progression/
2. (disease adj2 prog\$.tw.
3. ((second\$ or further\$ or contin\$) adj2 asses\$.tw.
4. exp telemedicine/ or exp remote consultation/
5. (teleconsult\$ or telemed\$.tw.
6. ((remote or tele\$) adj2 (consult\$ or asses\$)).tw.
7. exp Monitoring, Physiologic/
8. ((patient\$ or physio\$ or symptom\$) adj2 monitor\$.tw.
9. exp "severity of illness index"/
10. deteriorat\$.tw.
11. or/1-10

KQ3_12: signs_severe_disease: NoF

1. exp *prognosis/
2. exp *"signs and symptoms"/
3. exp Tachycardia/
4. tachycard\$.tw.
5. exp Heart Rate/
6. (heart adj2 (rate or pace or rapid)).tw.
7. ((rapid or quick\$) adj2 breath\$.tw.
8. tachypn\$.tw.
9. exp Hypotension/
10. hypotens\$.tw.
11. exp Blood Pressure/
12. capil\$ refil\$ time.tw.
13. crt.tw.
14. exp Capillaries/
15. perip\$ perf\$.tw.
16. exp Body Temperature/
17. ((core or central) adj2 temp\$.tw.
18. temperature.tw.
19. exp Exanthema/
20. rash.tw.
21. exanthem\$.tw.
22. exp body temperature changes/ or exp fever/
23. fever\$.tw.
24. ((stiff or sore or pain\$ or move\$) adj2 neck).tw.
25. irritab\$.tw.
26. fuss\$.tw.
27. letharg\$.tw.
28. exp Fatigue/
29. (fatigue\$ or lassitud\$.tw.
30. drows\$.tw.
31. exp Consciousness/
32. (conscious\$ or unconscious\$.tw.
33. exp Glasgow Coma Scale/
34. exp Leukocyte Count/
35. ((cell\$ or leukocyt\$) adj2 count\$.tw.
36. exp Neutrophils/
37. exp Leukocytes/
38. (neutrophil\$ adj2 count\$.tw.
39. exp Leukopenia/
40. coagulopath\$.tw.
41. exp Blood Coagulation Disorders/
42. exp Biological Markers/bl [Blood]

43. exp Fibrin Fibrinogen Degradation Products/
44. (fibrin\$ degrad\$ produc\$ or FDP).tw.
45. coag\$ disord\$.tw.
46. crp.tw.
47. exp C-Reactive Protein/
48. (C-react\$ prot\$ or c react\$ prot\$.tw.
49. exp blood cell count/ or exp platelet count/ or exp blood coagulation tests/ or exp platelet function tests/
50. platelet\$.tw.
51. exp Blood Gas Analysis/
52. ((blood\$ or arter\$ or venous or capil\$) adj2 gas\$.tw.
53. exp Kidney Function Tests/
54. ((kidney or renal) adj2 (func\$ or test\$)).tw.
55. exp Kidney Failure, Acute/
56. ((kidney or renal) adj2 failur\$.tw.
57. exp Liver Function Tests/
58. (liver adj2 (func\$ or test\$)).tw.
59. exp Liver Failure, Acute/
60. exp Hydrocortisone/
61. (cortisol\$ or hydrocortison\$.tw.
62. exp Blood Glucose/
63. (blood adj2 (glucose or sugar)).tw.
64. exp hyperglycemia/ or exp hypoglycemia/
65. exp Creatine Kinase/
66. (creatin\$ adj2 (phosph\$ or kinas\$)).tw.
67. cpk.tw.
68. exp Rhabdomyolysis/
69. rhabdomy\$.tw.
70. or/1-69

KQ4_5_9_10: Antibiotics: RCT

1. exp Anti-Bacterial Agents/
2. antibiotic\$.tw.
3. exp Penicillins/
4. penicillin\$.tw.
5. exp Cefotaxime/
6. cefotaxim\$.tw.
7. exp Chemoprevention/
8. (prophyla\$ adj2 antibiotic\$.tw.
9. disease transmission, horizontal/ or disease transmission, patient-to-professional/
10. (disease\$ adj3 (transmi\$ or expos\$ or infect\$)).tw.
11. (school\$ or class\$ or pupil\$ or child\$ or famil\$).tw.
12. 10 and 11
13. Health Personnel/
14. Masks/
15. Cardiopulmonary Resuscitation/
16. ("mouth to mouth" or mouth-to-mouth).tw.
17. (fluid\$ and resuscitat\$).tw.
18. Rifampin/
19. rifampi\$.tw.
20. Ceftriaxone/
21. ceftriaxon\$.tw.
22. Ciprofloxacin/
23. ciprofloxacin\$.tw.
24. exp contact tracing/
25. exp Disease Outbreaks/pc [Prevention & Control]
26. (second\$ adj2 infect\$).tw.
27. or/1-10,12-26

KQ4_5 Antibiotic Duration

1. exp Anti-Bacterial Agents/
2. antibiotic\$.tw.
3. exp Penicillins/
4. penicillin\$.tw.
5. exp Cefotaxime/

6. cefotaxim\$.tw.
7. exp Chemoprevention/
8. (prophyla\$ adj2 antibiotic\$.tw.
9. Rifampin/
10. rifampi\$.tw.
11. Ceftriaxone/
12. ceftriaxon\$.tw.
13. Ciprofloxacin/
14. ciprofloxacin\$.tw.
15. or/1-14
16. exp time/ or exp time factors/
17. (time or timing or durat\$.tw.
18. ((length\$ or prolong\$) adj2 treat\$.tw.
19. exp Drug Administration Schedule/
20. or/16-19
21. 15 and 20

KQ6: Education programmes. No Filter

1. exp education/ or exp education, special/ or exp health education/ or exp patient education/
2. educat\$.tw.
3. exp Health Promotion/
4. ((health\$ or inform\$ or mening\$) adj2 (campaign\$ or promot\$ or educat\$)).tw.
5. ((public\$ or lay\$) adj2 (inform\$ or campaign\$ or aware\$)).tw.
6. exp Education, Professional/
7. exp Inservice Training/
8. ((staff\$ or profess\$) adj2 (train\$ or educat\$)).tw.
9. or/1-8

KQ7_18_19: Process Mapping_ICU_Consultation. RCTs and OBS

1. exp time factors/
2. (door\$ adj2 needle\$.tw.
3. exp Emergency Medicine/
4. (prompt\$ or delay\$.tw.
5. exp Practice Guidelines/
6. exp early diagnosis/
7. exp hospitalization/ or exp patient transfer/
8. exp patient care management/ or exp critical pathways/ or exp "delivery of health care"/ or exp health services accessibility/
9. exp emergency treatment/ or exp "transportation of patients"/
10. exp emergency service, hospital/ or exp trauma centers/
11. "direct access".tw.
12. (rapid adj2 transfer\$.tw.
13. ((early or rapid\$) adj2 (recog\$ or diagn\$ or transfer\$)).tw.
14. (process\$ adj2 map\$.tw.
15. ((early or rapid\$ or prompt\$) adj2 (manag\$ or treatment\$ or antibiot\$ or therap\$ or surger\$)).tw.
16. (manag\$ adj2 protocol\$.tw.
17. exp Clinical Protocols/
18. or/1-17
19. exp intensive care units/ or exp intensive care units, pediatric/
20. (ICU or PICU).tw.
21. (intensive adj2 care).tw.
22. exp patient care management/ or exp patient care team/
23. ((special\$ or central\$) adj2 (retriev\$ or team\$)).tw.
24. exp telemedicine/ or exp remote consultation/
25. ((telephon\$ or remot\$) adj2 (support\$ or consult\$)).tw.
26. exp "Referral and Consultation"/
27. refer\$.tw.
28. ((early or rapid\$ or prompt\$) adj2 (refer\$ or retriev\$)).tw.
29. or/19-28
30. 18 or 29

KQ8_17: emergency_and_treat: RCT

1. exp Resuscitation/
2. resus\$.tw.
3. cpr.tw.
4. ambulanc\$.tw.
5. ((prompt\$ or early or rapid) adj2 (manage\$ or treat\$)).tw.
6. exp Emergency Medical Services/
7. (emerg\$ adj2 (care or treat\$ or medic\$)).tw.
8. prehospital.tw.
9. pre-hospital.tw.
10. exp time factors/
11. or/1-10
12. exp Anti-Bacterial Agents/
13. antibiotic\$.tw.
14. exp Penicillins/
15. penicillin\$.tw.
16. exp Cefotaxime/
17. cefotaxim\$.tw.
18. Rifampin/
19. rifampi\$.tw.
20. Ceftriaxone/
21. ceftriaxon\$.tw.
22. Ciprofloxacin/
23. ciprofloxacin\$.tw.
24. (anti-bacte\$ or antibacter\$).tw.
25. exp Adrenal Cortex Hormones/
26. corticoid\$.tw.
27. corticosteroid\$.tw.
28. exp Fluid Therapy/
29. ((fluid\$ or rehydr\$) adj2 (therap\$ or treat\$)).tw.
30. exp Rehydration Solutions/
31. exp Colloids/
32. (crystalloid\$ or colloid\$).tw.
33. salin\$.tw.
34. hartmann\$.tw.
35. exp Isotonic Solutions/
36. ringer\$.tw.
37. exp Organ Preservation Solutions/
38. exp Plasma/
39. plasma\$.tw.
40. ffp\$.tw.
41. exp Plasma Substitutes/
42. exp Hetastarch/
43. exp Intubation/
44. intub\$.tw.
45. exp Resuscitation/
46. resus\$.tw.
47. exp Oxygen/
48. oxygen\$.tw.
49. exp Respiratory Therapy/
50. exp Assisted Circulation/
51. exp Infusions, Intravenous/
52. or/12-51
53. 11 or 52

KQ11_vaccine: RCT_OBS

1. exp Meningococcal Vaccines/
2. (mening\$ adj3 (vaccin\$ or immun\$)).tw.
3. 1 or 2
4. exp Vaccines/
5. vaccin\$.tw.
6. 4 or 5
7. exp Meningococcal Infections/
8. (meningoc\$ or meningit\$).tw.

9. exp Neisseria meningitidis/
10. exp Meningitis, Bacterial/
11. exp Meningococcal Vaccines/
12. exp Septicemia/
13. exp Sepsis/
14. (sepsis\$ or septic\$.)tw.
15. or/7-12
16. 6 and 15
17. 3 or 16

KQ13: Scoring Systems: Combined with main stem. No Filter

1. exp "severity of illness index"/
2. exp trauma severity indices/
3. scoring system\$.mp.
4. leclerc.mp.
5. glasgow.tw.
6. GMSPS.mp.
7. (gedde\$ adj4 scor\$.)mp.
8. (scor\$ adj3 (system or clinical or risk or progno\$ or sever\$ or mening\$ or septic\$)).mp.
9. or/1-8

KQ14: Early Investigations DIA

1. exp Disease Notification/
2. exp Blood/
3. exp Bacteriological Techniques/
4. (blood adj2 cultur\$.)tw.
5. ((skin\$ or rash\$) adj3 scrap\$.)tw.
6. exp Skin Tests/
7. ((skin\$ or rash\$) adj3 test\$.)tw.
8. exp Polymerase Chain Reaction/
9. pcr.tw.
10. poly\$ chain react\$.tw.
11. ((phary\$ or throat\$) adj2 (swab\$ or cultur\$)).tw.
12. rapid antig\$ test\$.tw.
13. exp Skin/
14. exp Reagent Kits, Diagnostic/
15. exp Immunologic Tests/
16. exp antigens, bacterial/ or exp antigens, viral/
17. exp early diagnosis/
18. or/1-17

KQ15: Lumbar Puncture: Combined with main stem: No Filter

1. exp Spinal Puncture/
2. ((lumb\$ or spin\$ or dural\$) adj2 punctur\$.)tw.
3. LP.tw.
4. or/1-3

KQ16: Infection Control

1. exp infection control/
2. exp Cross Infection/
3. exp Patient Isolation/
4. disease transmission/
5. disease transmission, horizontal/
6. disease transmission, patient-to-professional/
7. exp Universal Precautions/
8. exp Chemoprevention/
9. Rifampin/
10. exp masks/ or exp protective clothing/
11. exp Disease Outbreaks/
12. communicable disease control/
13. primary prevention/
14. ((cross or control\$) adj2 infect\$.)tw.
15. ((hospital? or healthcare or "health care") adj2 (associat\$ or acquir\$) adj2 infect\$.)tw.

16. (isolat\$ adj3 (source? or patient? or protocol? or procedure? or method\$)).tw.
17. (protect\$ adj3 (clothes or clothing or mask? or gown? or glove? or apron?)).tw.
18. (chemoprophylaxis or chemoprevention or "chemical prophylaxis").tw.
19. rifampi\$.tw.
20. (second\$ adj2 infect\$).tw.
21. (disease\$ adj3 (transmi\$ or expos\$ or infect\$ or spread\$ or control\$)).tw.

KQ20: ICU interventions

1. exp Respiration, Artificial/
2. (respirat\$ or ventilat\$ or airway manag\$).tw.
3. exp Intubation, Intratracheal/
4. ((endotrach\$ or intratrach\$) adj3 intub\$).tw.
5. exp Cardiotoxic Agents/
6. inotrop\$.tw.
7. cardiotoxic\$.tw.
8. cardioprotect\$.tw.
9. exp Monitoring, Physiologic/
10. exp venous pressure/ or exp central venous pressure/
11. exp Renal Replacement Therapy/
12. ((kidney\$ or renal\$) adj2 replac\$).tw.
13. exp Hemofiltration/
14. (hemofiltrat\$ or haemofiltrat\$).tw.
15. cavh.tw.
16. hemodiafiltrat\$.tw.
17. cvvh.tw.
18. exp Plasmapheresis/
19. plasmapher\$.tw.
20. exp Extracorporeal Membrane Oxygenation/
21. ecmo.tw.
22. (extra\$ adj3 oxygen\$).tw.
23. or/1-22
24. "mechanical circulatory support".tw.
25. exp assisted circulation/ or exp heart-assist devices/
26. hyperosmol\$.tw.
27. exp Plasma Exchange/
28. plasmafiltrat\$.tw.
29. (plasma\$ adj2 (exchange\$ or filtrat\$ or transfus\$)).tw.
30. exp Intracranial Hypertension/
31. (intracranial adj2 (hyper\$ or pressur\$ or tension\$)).tw.
32. icp.tw.
33. hydroceph\$.tw.
34. or/24-33
35. ((arterial or artery) adj3 pressur\$).tw.
36. ((central or jugular or venous or vein\$) adj2 pressur\$).tw.
37. exp Hypertension, Pulmonary/
38. ((pulmon\$ or lung\$) adj3 (pressur\$ or hyperten\$)).tw.
39. or/35-38
40. 23 or 34 or 39

KQ20: Steroids

1. exp Steroids/
2. steroid\$.tw.
3. exp Adrenal Cortex Hormones/
4. corticosteroid\$.tw.
5. corticoid\$.tw.
6. (adrenal\$ adj2 hormon\$).tw.
7. or/1-6

KQ21: Immunological Support: Combined with main stem: RCT

1. exp Immunoglobulins/
2. (immun\$ adj2 globulin\$).tw.
3. immunoglob\$.tw.
4. antibod\$.tw.
5. exp Protein C/

6. (prot\$ adj2 c).tw.
7. exp Heparin/
8. heparin\$.tw.
9. exp Plasma/
10. plasma.tw.
11. ffp.tw.
12. exp Prostaglandins/
13. prostagland\$.tw.
14. pg-12.tw.
15. pg12.tw.
16. pg.tw.
17. exp Tissue Plasminogen Activator/
18. alteplase.tw.
19. (tpa or t-pa).tw.
20. ttpa.tw.
21. t-plasmin\$.tw.
22. or/1-21

KQ21 top-up (PAF and antithrombin 3):

1. exp Platelet Activating Factor/
2. PAF.tw.
3. ((platelet\$ or thrombo\$) adj2 (aggreg\$ or activat\$)).tw.
4. exp Antithrombin III/
5. (antithromb\$ adj2 (III or three or "3")).tw.
6. (heparin\$ adj2 (co-factor\$ or cofactor\$)).tw.
7. or/1-6

KQ22_23 Surgical Debridement: Combined with main stem. RCTs and OBS

1. exp Necrosis/
2. exp Skin/
3. exp Meningococcal Infections/co [Complications]
4. exp Compartment Syndromes/
5. (compartment adj3 (pressure or syndrome\$ or monitor\$)).tw.
6. exp Amputation/
7. amputat\$.tw.
8. exp Debridement/
9. exp Surgery, Plastic/
10. exp Fascia/
11. (fascia\$ or fasciotomy).tw.
12. debrid\$.tw.
13. exp Surgery/
14. disabil\$.tw.
15. ((tissue or skin\$ or limb) adj3 (necro\$ or disease\$)).tw.
16. ((plastic or reconstruc\$ or cosmet\$) adj3 surg\$).tw.
17. (second\$ adj3 infect\$).tw.
18. exp Superinfection/
19. or/1-18
20. surg\$.tw.
21. exp Time Factors/
22. 20 and 21
23. 19 or 22

KQ 24_25 Morbidities and Psychosocial Issues. Combined with main stem. RCTs and OBS.

1. exp social support/ (15702)
2. exp Adaptation, Psychological/ (27183)
3. exp Stress, Psychological/ (22545)
4. ((psycholog\$ or social\$ or psychosocial) adj2 (adjust\$ or behavio?r or adapt\$)).tw. (4481)
5. exp Counseling/ (8537)
6. counsel\$.tw. (18690)
7. exp *Anxiety/ (6030)
8. (patient adj3 (anxiety or stress)).tw. (815)

9. exp Stress Disorders, Post-Traumatic/ (6686)
10. ((post traumatic or post-traumatic) adj2 stress).tw. (1633)
11. exp Depression/ (16792)
12. exp Patient Education/ (23716)
13. exp Preoperative Care/ (13198)
14. exp Postoperative Care/ (10286)
15. (patient adj3 (recov\$ or inform\$ or care or educat\$)).tw. (26403)
16. *professional-patient relations/ or *nurse-patient relations/ or *physician-patient relations/ (14839)
17. (leaflet\$ or booklet\$ or pamphlet\$ or tape\$ or video\$).tw. (36085)
18. exp Communication/ (94880)
19. exp PAMPHLETS/ (914)
20. exp Patient Participation/ (6098)
21. (information adj3 (need\$ or resource\$)).tw. (5381)
22. patient literature.tw. (11)
23. exp Patient Care Team/ (17322)
24. information.tw. (210074)
25. or/1-24 (483890)
26. exp psychotherapy, group/ or exp family therapy/ (3935)
27. exp "cost of illness"/ (6644)
28. exp caregivers/ or exp parents/ or exp siblings/ (27173)
29. exp Family Relations/ (16449)
30. (family or parent\$ or mother\$ or father\$ or brother\$ or sister\$ or sibling\$).tw. (281591)
31. (carer\$ or caregiver\$ or care-giver\$).tw. (11718)
32. (psycholog\$ or social\$ or psychosocial).tw. (118466)
33. or/26-32 (399700)
34. (organ adj3 (dysfunction\$ or impair\$ or failure\$)).tw. (6681)
35. exp Kidney Failure/ (30778)
36. ((kidney\$ or renal\$) adj3 (insuffic\$ or failure\$ or impair\$ or dysfunc\$)).tw. (32850)
37. exp Vision Disorders/ (12804)
38. (vision\$ or eyesight\$).tw. (20438)
39. exp Hearing Loss/ (12608)
40. (hear\$ adj3 (impair\$ or loss\$)).tw. (10776)
41. deaf\$.tw. (7125)
42. exp *mental disorders diagnosed in childhood/ or exp child behavior disorders/ or exp communication disorders/ or exp developmental disabilities/ or exp learning disorders/ or exp mental retardation/ or exp motor skills disorders/ or exp mood disorders/ (75216)
43. (behaviour\$ or behavior\$).tw. (180917)
44. exp mobility limitation/ (45)
45. mobil\$.tw. (58344)
46. exp Stress Disorders, Post-Traumatic/ (6686)
47. ((post-traumatic or post traumatic) adj2 (stress\$ or neuroses\$)).tw. (1633)
48. exp learning disorders/ or dyslexia/ or exp memory disorders/ or exp mental retardation/ or exp perceptual disorders/ or exp psychomotor disorders/ (34037)
49. (learning adj2 (difficult\$ or impair\$)).tw. (1939)
50. ((academic\$ or education\$ or school\$) adj2 achieve\$).tw. (1280)
51. exp Speech Disorders/ (4859)
52. speech\$.tw. (13346)
53. exp Walking/ (5501)
54. (ambulation or disabil\$ or walk\$).tw. (47671)
55. exp Cognition Disorders/ (17079)
56. cognition.tw. (7511)
57. exp "Quality of Life"/ (37583)
58. (quality of life or life quality).tw. (41416)
59. ((learning or intellec\$) adj2 (difficult\$ or impair\$)).tw. (2260)
60. exp Hematologic Diseases/ (96137)
61. ((haematolog\$ or hematolog\$) adj2 (disease\$ or disabilit\$)).tw. (1337)
62. exp Hydrocephalus/ (3795)
63. hydroceph\$.tw. (4537)
64. exp Epilepsy/ (31851)
65. epileps\$.tw. (19605)
66. (sequelae\$ or morbid\$).tw. (87074)

67. exp Meningitis, Bacterial/co [Complications] (790)
68. exp Seizures/ (9199)
69. seizure\$.tw. (24963)
70. exp neurologic manifestations/ or exp neurobehavioral manifestations/ or exp communication disorders/ or exp language disorders/ or exp language development disorders/ (182673)
71. or/34-70 (788819)
72. 25 or 33 or 71 (1380397)

KQ24 top up search

1. Cerebral Palsy/
2. (cere\$ adj2 pal\$).tw.
3. exp respiratory tract diseases/ or exp respiration disorders/ or exp respiratory insufficiency/
4. ((resp\$ or breath\$) adj2 (insuff\$ or probl\$ or compl\$ or abnorma\$ or infect\$ or disord\$)).tw.
5. exp Purpura, Schoenlein-Henoch/
6. purpura\$.tw.
7. exp Skin Diseases/
8. (skin adj3 (involve\$ or comp\$ or abnorm\$ or sequ\$ or morbid\$)).tw.
9. or/1-8

KQ24_25 Search broadened to PICU and Critical Illness

1. exp social support/
2. exp Adaptation, Psychological/
3. exp Stress, Psychological/
4. ((psycholog\$ or social\$ or psychosocial) adj2 (adjust\$ or behavio?r or adapt\$)).tw.
5. exp Counseling/
6. counsel\$.tw.
7. exp *Anxiety/
8. (patient adj3 (anxiety or stress)).tw.
9. exp Stress Disorders, Post-Traumatic/
10. ((post traumatic or post-traumatic) adj2 stress).tw.
11. exp Depression/
12. exp Patient Education/
13. exp Preoperative Care/
14. exp Postoperative Care/
15. (patient adj3 (recov\$ or inform\$ or care or educat\$)).tw.
16. *professional-patient relations/ or *nurse-patient relations/ or *physician-patient relations/
17. (leaflet\$ or booklet\$ or pamphlet\$ or tape\$ or video\$).tw.
18. exp Communication/
19. exp PAMPHLETS/
20. exp Patient Participation/
21. (information adj3 (need\$ or resource\$)).tw.
22. patient literature.tw.
23. exp Patient Care Team/
24. information.tw.
25. or/1-24
26. exp psychotherapy, group/ or exp family therapy/
27. exp "cost of illness"/
28. exp caregivers/ or exp parents/ or exp siblings/
29. exp Family Relations/
30. (family or parent\$ or mother\$ or father\$ or brother\$ or sister\$ or sibling\$).tw.
31. (carer\$ or caregiver\$ or care-giver\$).tw.
32. (psycholog\$ or social\$ or psychosocial).tw.
33. or/26-32
34. 25 or 33
35. exp Intensive Care Units, Pediatric/
36. ((paed\$ or neon\$ or child\$) adj2 inten\$).tw.
37. picu.tw.
38. exp Critical Illness/
39. ((critic\$ or acut\$) adj2 ill\$).tw.
40. or/35-39
41. 34 and 40

KQ25: Top-up: Broadened search to include PICU and critical illness

1. exp social support/

2. exp Adaptation, Psychological/
3. exp Stress, Psychological/
4. ((psycholog\$ or social\$ or psychosocial) adj2 (adjust\$ or behavior\$ or adapt\$)).tw.
5. exp Counseling/
6. counsel\$.tw.
7. exp *Anxiety/
8. (patient adj3 (anxiety or stress)).tw.
9. exp Stress Disorders, Post-Traumatic/
10. ((post traumatic or post-traumatic) adj2 stress).tw.
11. exp Depression/
12. exp Patient Education/
13. exp Preoperative Care/
14. exp Postoperative Care/
15. (patient adj3 (recov\$ or inform\$ or care or educat\$)).tw.
16. *professional-patient relations/ or *nurse-patient relations/ or *physician-patient relations/
17. (leaflet\$ or booklet\$ or pamphlet\$ or tape\$ or video\$).tw.
18. exp Communication/
19. exp PAMPHLETS/
20. exp Patient Participation/
21. (information adj3 (need\$ or resource\$)).tw.
22. patient literature.tw.
23. exp Patient Care Team/
24. information.tw.
25. or/1-24
26. exp psychotherapy, group/ or exp family therapy/
27. exp "cost of illness"/
28. exp caregivers/ or exp parents/ or exp siblings/
29. exp Family Relations/
30. (family or parent\$ or mother\$ or father\$ or brother\$ or sister\$ or sibling\$).tw.
31. (carer\$ or caregiver\$ or care-giver\$).tw.
32. (psycholog\$ or social\$ or psychosocial).tw.
33. or/26-32
34. 25 or 33
35. exp Intensive Care Units, Pediatric/
36. ((paed\$ or neon\$ or child\$) adj2 inten\$).tw.
37. picu.tw.
38. exp Critical Illness/
39. ((critic\$ or acut\$) adj2 ill\$).tw.
40. or/35-39
41. 34 and 40