

Postoperative Management search narrative

Summary

1. The searches were designed to answer the key questions in the Key Questions July document.
2. All results from the searches are found in the new searches folder. These results were merged with the existing libraries created from the previous postoperative management search. The newly identified results can also be found in the new searches folder.
3. Searching began with a basic section relating to postoperative management as a whole. Separate searches were then conducted, attaching to the general stem specific sections relating to each subgroup.
4. Each search was completed by adding filters for systematic reviews and then rcts. The scope of searching done was thus:

Systematic Review search

Databases: Medline/Healthstar/Embase/The Cochrane Library
Year Range: 1993-2001
Completed: August 2001

RCT search

Databases: Medline/Healthstar/Embase/The Cochrane Library
Year Range: 1993-2001
Completed: August 2001

Observational Studies Search

Databases: Medline/Healthstar/Embase/The Cochrane Library
Year Range: 1993-2001
Completed: November 2001

6. A search of the Internet was also completed in August 2001 to retrieve further material of relevance (and also existing consensus-based guidelines on postop management). The results can also be found in the new searches folder, and the sites searched are as follows:

National Guideline Clearinghouse
National Health and Medical Research Council
HSTAT
Health Technology Assessment
Canadian Medical Association
NHS Centre for Reviews and Dissemination
Citeline (medical search engine)
Medical World Search (medical search engine)
Echidna (medical search engine)
Medisearch (medical search engine)

Google (search engine)

August 2001

Generic Stem

- The search for the whole group included terms relating to the perioperative period as well as postoperative to ensure complete coverage.
- According to the remit of postoperative management, certain topics were not to be addressed in the guideline. The search for the whole group took account of this by excluding specific index terms where they were considered the main focus of the article.

Medline/Healthstar/Cochrane Library

- 1 postoperative period/
- 2 postoperative care/
- 3 postoperative complications/
- 4 perioperative care/
- 5 perioperative nursing/
- 6 postanesthesia nursing/
- 7 anesthesia recovery period/
- 8 (postoperative or post-operative).tw.
- 9 (postsurg\$ or post-surg\$).tw.
- 10 (post-an?esthesia or postan?esthesia).tw.
- 11 (perioperative or peri-operative).tw.
- 12 or/1-11
- 13 limit 12 to human
- 14 limit 13 to (adult < 19 to 44 years> or middle age < 45 to 64 years> or "aged < 65 and over>" or "aged, 80 and over")
- 15 *pain, postoperative/
- 16 *antibiotic prophylaxis/
- 17 *surgical wound infection/pc
- 18 *venous thrombosis/pc
- 19 *pulmonary embolism/pc
- 20 *craniocerebral trauma/
- 21 *head injuries/
- 22 *head injuries, penetrating/
- 23 *head injuries, closed/
- 24 *hip fractures/
- 25 (antimicrobial adj prophylaxis).tw.
- 26 or/15-25
- 27 14 not 26

Embase

- 1 Postoperative period/
- 2 Postoperative care/
- 3 Postoperative complication/
- 4 Perioperative period/
- 5 Anesthetic recovery/
- 6 (postoperative or post-operative).tw.
- 7 (postsurg\$ or post-surg\$).tw.
- 8 (postanesthesia or post-anesthesia).tw.
- 9 (perioperative or peri-operative).tw.
- 10 or/1-9
- 11 limit 10 to (human and (adult < 18 to 64 years > or aged < 65+ years >))
- 12 *pain, postoperative/
- 13 *Antibiotic prophylaxis/
- 14 *Surgical infection/pc
- 15 *Vein thrombosis/pc
- 16 *Lung embolism/pc
- 17 *Head injury/
- 18 *Hip fracture/
- 19 (antimicrobial adj prophylaxis).tw.
- 20 or/12-19
- 21 11 not 20

Cardiovascular Sub-group

- The search incorporated terms relating specifically to *myocardial* ischaemia and infarction. Although this degree of specificity was not mentioned in the key questions, clarification was sought prior to the search.
- On advice, PTCA and CABG were deliberately excluded as viable treatment options for myocardial ischaemia in the postoperative period.
- A broader search for arrhythmia had more effective results than narrowing it by combining with specific terms associated with predisposition, morbidity and mortality.
- The inclusion of specific drug names in text word searches for ischaemia were omitted as they produced no significant difference in the number of hits retrieved by exploding drug-class index terms.
- A very specific search for articles relating to 12 lead ECG was undertaken, as including more general terms relating to echocardiography produced an overwhelming number of hits.

- A pragmatic approach was adopted in the search design to cover questions 12 and 13. Sections relating to the preoperative and postoperative period were combined with a section on CV medication.

Medline/Healthstar/Cochrane Library

(identify material for questions 1,2,9)

28. *heart rate/
29. exp arrhythmia/
30. (heart adj (rate or rhythm)).ti.
31. (arrhythmia\$ or bradycardia\$ or tachycardia\$).ti.
32. or/28-31
33. *blood pressure/
34. *hypertension/
35. hypotension/
36. (blood adj pressure).ti.
37. hyp??tension.ti.
38. ((systolic or diastolic or pulse) adj pressure).ti.
39. or/33-38
40. 27 and 32
41. 27 and 39

(identify material for question 3 (part 1))

42. exp diagnostic imaging/
43. exp diagnostic techniques, cardiovascular/
44. exp echocardiography/
45. exp radionuclide imaging/
46. diagnos\$.ti.
47. detect\$.ti.
48. ultrason\$.ti.
49. echocardiograph\$.ti.
50. arteriograph\$.ti.
51. angiograph\$.ti.
52. doppler.ti.
53. (magnetic adj resonance).ti.
54. mri.ti.
55. (mr adj imaging).ti.
56. ultrasound.ti.
57. or/42-56
58. myocardial ischemia/
59. ((myocardial or cardiac or coronary) adj isch?emi\$).tw.
60. 58 or 59
61. 27 and 57 and 60
62. myocardial ischemia/di

- 63. 27 and 62
- 64. 61 or 63
- 65. exp nitrates/
- 66. exp adrenergic beta-antagonists/
- 67. exp calcium channel blockers/
- 68. exp vasodilator agents/

- 69. aspirin/
- 70. heparin/
- 71. or/65-70

(identifying material for question 3 (part 2))

- 72. nitrate\$.tw.
- 73. (beta-blocker\$ or beta-antagonist\$.tw.
- 74. ((calcium or calcium-channel) adj antagonist\$.tw.
- 75. ((calcium or calcium-channel) adj blocker\$.tw.
- 76. (potassium-channel adj2 activator\$.tw.
- 77. (aspirin or heparin).tw.
- 78. or/72-77
- 79. 71 or 78
- 80. 27 and 60 and 79

(identify material for questions 4,5,6)

- 81. exp arrhythmia/
- 82. (arrythmi\$ or dysrhythmi\$ or rhythm).tw.
- 83. palpitation.tw.
- 84. (bradycardi\$ or bradyarrhythmi\$.tw.
- 85. (tachycardi\$ or tachyarrhythmi\$.tw.
- 86. (atrial adj (flutter or fibrillation)).tw.
- 87. (ventricular adj fibrillation).tw.
- 88. (auricular adj (flutter or fibrillation)).tw.
- 89. ((heart or av or atrioventricular) adj block).tw.
- 90. ((sa or sinoatrial) adj block).tw.
- 91. or/81-90
- 92. 27 and 91
- 93. disease susceptibility/
- 94. susceptib\$.mp.
- 95. predispos\$.mp.
- 96. predict\$.mp.
- 97. prognos\$.mp.
- 98. or/93-97
- 99. 92 and 98

(identify material for question 7)

- 100. (twelve adj lead).tw.
- 101. 12 lead.tw.

- 102. 100 or 101
- 103. 27 and 102

(identify material for question 8)

- 104. exp heart failure, congestive/
- 105. exp ventricular dysfunction/
- 106. (heart adj (failure or dysfunction)).tw.
- 107. (ventricular adj (failure or dysfunction)).tw.
- 108. (cardiac adj (failure or dysfunction)).tw.
- 109. or/104-108
- 110. 27 and 109
- 111. diagnosis/
- 112. (diagnos\$ or detect\$).mp.
- 113. (specificity or sensitivity).mp.
- 114. or/111-113
- 115. 110 and 114
- 116. exp heart failure, congestive/di
- 117. exp ventricular dysfunction/di
- 118. 116 or 117
- 119. 27 and 118
- 120. 115 or 119

(identify material for question 10)

- 121. hypertension/th,dt
- 122. exp antihypertensive agents/
- 123. exp diuretics/
- 124. exp adrenergic antagonists/
- 125. exp calcium channel blockers/
- 126. exp vasodilator agents/
- 127. exp angiotensin-converting enzyme inhibitors/
- 128. exp Angiotensins/ai
- 129. or/121-128
- 130. (antihypertensives or diuretics).tw.
- 131. (antihypertensive adj (agent\$ or drug\$ or medicine\$)).tw.
- 132. (alpha adj (blocker\$ or antagonist\$)).tw.
- 133. (vasodilator adj (agent\$ or drug\$ or medicine\$)).tw.
- 134. (angiotensin adj ii).tw.
- 135. (ace adj inhibitor\$).tw.
- 136. (angiotensin adj converting adj enzyme adj inhibitor).tw.
- 137. or/130-136
- 138. (129 or 137) and 27

(identify material for question 11)

- 139. exp myocardial infarction/
- 140. (myocard\$ adj (infarct\$ or stunning or necrosis)).tw.
- 141. (stunned adj myocard\$).tw.
- 142. (cardiogenic adj shock).tw.
- 143. or/139-142
- 144. 27 and 143

- 145. exp troponin/
- 146. troponin\$.mp.
- 147. 145 or 146
- 148. 144 and 147

(identify material for questions 12 and 13)

- 149. exp cardiovascular agents/
- 150. exp myocardial ischemia/dt
- 151. exp anti-arrhythmia agents/
- 152. exp anti-hypertensive agents/
- 153. exp myocardial infarction/dt
- 154. or/79,129,137
- 155. exp anticoagulants/
- 156. exp platelet aggregation inhibitors/
- 157. exp cardiogenic agents/
- 158. exp antilipemic agents/
- 159. (anticoagulant adj (agent\$ or drug\$)).tw.
- 160. (platelet adj (antagonist\$ or inhibitor\$ or aggreg\$)).tw.
- 161. (cardiogenic adj (agent\$ or drug\$)).tw.
- 162. (antilipemic adj (agent\$ or drug\$)).tw.
- 163. exp arrhythmia/dt
- 164. exp hypertension/dt
- 165. (platelet adj (antagonist\$ or inhibitor\$ or aggreg\$)).tw.
- 166. or/149-165
- 167. preoperative care/
- 168. perioperative care/
- 169. perioperative nursing/
- 170. (preoperative or pre-operative).tw.
- 171. (prean?esthes\$ or pre-an?esthes\$).tw.
- 172. (presurg\$ or presurg\$).tw.
- 173. "before surgery".tw.
- 174. or/167-173
- 175. 27 and 166
- 176. 174 and 175
- 177. or/40-41,64,80,92,103,120,138,148,176

Embase

(identify material for questions 1,2,9)

- 22 *heart rate/
- 23 exp arrhythmia/
- 24 (heart adj (rate or rhythm)).ti.
- 25 (arrhythmi\$ or bradycardi\$ or tachycardi\$).tw.
- 26 or/22-25
- 27 *blood pressure/
- 28 *hypertension/

- 29 hypotension/
- 30 (blood adj pressure).ti.
- 31 hyp??tension.ti.
- 32 ((systolic or diastolic or pulse) adj pressure).ti.
- 33 or/27-32
- 34 21 and 26
- 35 21 and 33
- 36 34 or 35

(identify material for question 3 (part 1))

- 37 exp diagnostic imaging/
- 38 exp cardiovascular system examination/
- 39 exp echocardiography/
- 40 exp scintiscanning/
- 41 (diagnos\$ or detect\$).ti.
- 42 (ultrason\$ or echocardiograph\$).ti.
- 43 (arteriograph\$ or angiograph\$).ti.
- 44 doppler.ti.
- 45 (magnetic adj resonance).ti.
- 46 MRI.ti.
- 47 (mr adj imaging).ti.
- 48 ultrasound.ti.
- 49 or/37-48
- 50 Heart muscle ischemia/
- 51 ((myocardial or cardiac or coronary) adj isch?emi\$).tw.
- 52 50 or 51
- 53 21 and 49 and 52
- 54 heart muscle ischemia/di
- 55 21 and 54
- 56 53 or 55

(identify material for question 3 (part 2))

- 57 exp nitrate/
- 58 exp Beta adrenergic receptor blocking agent/
- 59 exp Calcium channel blocking agent/
- 60 exp vasodilator agent/
- 61 Acetylsalicylic acid/
- 62 heparin/
- 63 or/57-62
- 64 nitrate\$.tw.
- 65 (beta-blocker\$ or beta-antagonist\$).tw.
- 66 ((calcium or calcium-channel) adj antagonist\$).tw.
- 67 ((calcium or calcium-channel) adj blocker\$).tw.
- 68 (potassium-channel adj2 activator\$).tw.
- 69 (aspirin or heparin).tw.
- 70 or/64-69
- 71 63 or 70
- 72 21 and 52 and 71

(identify material for questions 4,5,6)

- 73 exp arrhythmia/
- 74 (arrhythmi\$ or dysrhythmi\$ or rhythm).tw.
- 75 palpitation.tw.
- 76 (bradycardi\$ or bradyarrhythmi\$).tw.
- 77 (tachycardi\$ or tachyarrhythmi\$).tw.
- 78 (atrial adj (flutter or fibrillation)).tw.
- 79 (ventricular adj fibrillation).tw.
- 80 (auricular adj (flutter or fibrillation)).tw.
- 81 ((hear or AV or atrioventricular) adj block).tw.
- 82 ((SA or sinoatrial) adj block).tw.
- 83 or/73-82
- 84 21 and 83

(identify material for question 7)

- 85 (twelve adj lead).tw.
- 86 12 lead.tw.
- 87 85 or 86
- 88 21 and 87

(identify material for question 8)

- 89 exp Heart failure/
- 90 (heart adj (failure or dysfunction)).tw.
- 91 (ventric\$ adj (failure or dysfunction)).tw.
- 92 (cardiac adj (failure or dysfunction)).tw.
- 93 or/89-92
- 94 21 and 93
- 95 diagnosis/
- 96 (diagnos\$ or detect\$).mp.
- 97 (specificity or sensitivity).mp.
- 98 or/95-97
- 99 94 and 98
- 100 exp heart failure/di
- 101 21 and 100
- 102 99 or 101

(identify material for question 10)

- 103 hypertension/th,dt
- 104 exp antihypertensive agent/
- 105 exp diuretic agent/
- 106 exp Adrenergic receptor blocking agent/
- 107 exp Calcium channel blocking agent/
- 108 exp vasodilator agent/
- 109 or/103-108
- 110 (antihypertensives or diuretics).tw.
- 111 (antihypertensive adj (drug\$ or agent\$ or medicine\$)).tw.
- 112 (alpha adj (blocker\$ or antagonist\$)).tw.
- 113 (vasodilator adj (agent\$ or drug\$ or medicine\$)).tw.
- 114 (angiotensin adj ii).tw.

- 115 (ace adj inhibitor\$.tw.
- 116 (angiotensin adj converting adj enzyme adj inhibitor).tw.
- 117 or/110-116
- 118 (109 or 117) and 21

(identify material for question 11)

- 119 exp Heart infarction/
- 120 (myocard\$ adj (infarct\$ or stunning or necrosis)).tw.
- 121 (stunned adj myocard\$).tw.
- 122 (cardiogenic adj shock).tw.
- 123 or/119-122
- 124 21 and 123
- 125 exp Troponin/
- 126 troponin\$.mp.
- 127 125 or 126
- 128 124 and 127

(identify material for questions 12 and 13)

- 129 exp cardiovascular agent/
- 130 exp Heart Muscle Ischemia/dt
- 131 exp Antiarrhythmic Agent/
- 132 exp Antihypertensive Agent/
- 133 exp heart infarction/dt
- 134 or/71,109,117
- 135 exp anticoagulant agent/
- 136 exp Antithrombocytic agent/
- 137 exp cardiotoxic agent/
- 138 exp antilipemic agent/
- 139 (anticoagulant adj (drug\$ or agent\$)).tw.
- 140 (platelet adj (antagonist\$ or inhibitor\$ or aggreg\$)).tw.
- 141 (cardiotonic adj (agent\$ or drug\$)).tw.
- 142 (antilipemic adj (agent\$ or drug\$)).tw.
- 143 exp Heart Arrhythmia/dt
- 144 exp hypertension/dt
- 145 (platelet adj (antagonist\$ or inhibitor\$ or aggreg\$)).tw.
- 146 or/129-145
- 147 preoperative care/
- 148 preoperative period/
- 149 Perioperative period/
- 150 (preoperative or pre-operative).tw.
- 151 (prean?esthesi\$ or pre-an?esthesi\$).tw.
- 152 (presurg\$ or pre-surg\$).tw.
- 153 "before surgery".tw.
- 154 or/147-153
- 155 21 and 146
- 156 154 and 155
- 157 or/36,56,72,84,88,102,118,128,156

Clinical Assessment Sub-group

- In order to answer the key questions, the search was designed firstly to retrieve material relating to postoperative outcome. Separate sections concerning clinical assessment and monitoring, staff and staff training were then added. This strategy displayed more effective results than a search that began by identifying articles relating to assessment etc, followed by the addition of terms relating to outcome.

Medline/Healthstar/Cochrane Library

28. exp "Outcome and Process Assessment (Health Care)"/
29. exp mortality/
30. exp morbidity/
31. postoperative care/mo
32. postoperative complications/mo
33. exp perioperative care/mo
34. (outcome\$ or mortalit\$ or surviv\$).tw.
35. (morbidity\$ or prevalenc\$ or incidenc\$).tw.
36. (effectiveness or efficacy).tw.
37. (futility or failure).tw.
38. or/28-37
39. 27 and 38
40. exp *investigative techniques/
41. exp *"diagnostic techniques and procedures"/
42. (assess\$ or monitor\$).ti.
43. or/40-42
44. 39 and 43
45. (staff\$ or consultant\$ or physician\$).tw.
46. (nurse\$ or doctor\$ or hospitalist\$).tw.
47. exp *health personnel/
48. exp *hospital departments/ma
49. or/45-48
50. 39 and 49
51. exp *inservice training/
52. exp *education, medical/
53. *hospitals, teaching/
54. *teaching/
55. train\$.ti.
56. (orientation adj program\$).ti.
57. ((personnel or professional) adj development).tw.
58. or/51-57
59. 39 and 58
60. or/44,50,59

Embase

23 treatment failure/
 24 exp mortality/
 25 exp morbidity/
 26 (outcome\$ or mortalit\$ or surviv\$).tw.
 27 (morbidity\$ or prevalenc\$ or incidenc\$).tw.
 28 (effectiveness or efficacy).tw.
 29 (futility or failure).tw.
 30 or/22-29
 31 (assess\$ or monitor\$).ti.
 32 exp *"diagnosis, measurement and analysis"/
 33 31 or 32
 34 30 and 33
 35 exp *health care personnel/
 36 (staff\$ or consultant\$ or physician\$).tw.
 37 (nurs\$ or doctor\$ or hospitalist\$).tw.
 38 or/35-37
 39 30 and 38
 40 exp *medical education/
 41 exp staff training/
 42 exp nurse training/
 43 train\$.ti.
 44 (orientation adj program\$).ti.
 45 ((personnel or professional) adj development).ti.
 46 or/40-45
 47 30 and 46
 48 or/34,39,47
 49 21 and 48

Respiratory Sub-Group

- The search deliberately excluded terms relating to sleep apnoea as it retrieved a significant number of irrelevant hits. Furthermore, the management of this condition will be addressed in another SIGN guideline.

Medline/Healthstar/Cochrane Library

(identify material relating to respiratory problems)

28. exp respiratory tract diseases/
 29. (respirat\$ adj tract adj (infection\$ or disease\$ or disorder\$)).tw.
 30. (respirat\$ adj (infection\$ or disease\$ or disorder\$)).tw.
 31. (pulmonary adj (infection\$ or disease\$ or disorder\$)).tw.
 32. or/28-31
 33. 27 and 32
 34. exp sleep apnea syndromes/
 35. (sleep adj apn?ea).tw.
 36. 34 or 35

37. 33 not 36

(identify material relating to questions 1 and 2 (part 3))

- 38. diagnosis/
- 39. diagnos\$.tw.
- 40. (diagnos\$ or detect\$).tw.
- 41. (sensitivity or specificity).tw.
- 42. exp radiography, thoracic/
- 43. bronchoscopy/
- 44. (radiography or x-ray or bronchoscopy).tw.
- 45. exp anoxia/
- 46. exp hypercapnia/
- 47. (anoxi\$ or anox?emi\$).tw.
- 48. (hypoxi\$ or hypox?emi\$).tw.
- 49. hypercapnia.tw.
- 50. wheez\$.tw.
- 51. breathlessness.tw.
- 52. dyspn?ea.tw.
- 53. (cheynes-stoke adj respiration).tw.
- 54. hoarseness.tw.
- 55. (mouth adj breathing).tw.
- 56. sputum.tw.
- 57. (haemoptysis or hemoptysis).tw.
- 58. apn?ea.tw.
- 59. cough\$.tw.
- 60. (arterial adj oxygen).tw.
- 61. (arterial adj carbon adj dioxide).tw.
- 62. or/38-61
- 63. 37 and 62
- 64. exp Diagnostic Techniques, Respiratory System/
- 65. exp respiratory tract diseases/di
- 66. exp "signs and symptoms, respiratory"/
- 67. or/64-66
- 68. 67 not 36
- 69. 27 and 68
- 70. 63 or 69

(identify material related to questions 2 (parts 1 and 2))

- 71. exp respiratory tract diseases/th
- 72. exp respiratory therapy/
- 73. oxygen/tu
- 74. (oxygen adj inhalation adj therapy).tw.
- 75. ((oxygen or oxygenation) adj therapy).tw.
- 76. exp physical therapy/
- 77. (chest adj physiotherapy).tw.
- 78. (chest adj physical adj therapy).tw.
- 79. "nebulizers and vaporizers"/
- 80. (nebuli?er\$ or vapo?ri?er\$).tw.
- 81. (inhaler\$ or ventilator\$).tw.
- 82. ventilators, mechanical/

83. exp respiration, artificial/
84. (artificial adj airway\$.tw.
85. bronchoalveolar lavage/
86. (bronchoalveolar adj lavage).tw.
87. exp intubation, intratracheal/
88. ((intratracheal or endotracheal) adj intubation).tw.
89. tracheotomy/
90. tracheostomy/
91. tracheostomy.tw.
92. ((mechanical or artificial or assisted) adj ventilation).tw.
93. or/79-92
94. 27 and 93
95. (71 or 72) and 27
96. or/73-78
97. 37 and 96
98. 94 or 95 or 97

(identify material relating to question5)

99. respiratory tract diseases/dt
100. exp anti-inflammatory agents, steroidal/tu
101. exp respiratory system agents/
102. exp antitussive agents/
103. exp nasal decongestants/
104. or/99-103
105. (agent\$ or drug\$ or medicine\$.tw.
106. (glucocorticoid\$ or corticosteroid\$ or steroid\$.tw.
107. (bronchodilator\$ or expectorant\$.tw.
108. (decongestant\$ or antitussive\$.tw.
109. or/105-108
110. 32 and 109
111. (104 or 110) and 27

(identify material relating to question3)

112. exp antibiotics/
113. antibiotic\$.tw.
114. (anti-microbial or antimicrobial).tw.
115. exp analgesia/
116. analges\$.tw.
117. exp analgesics/
118. or/112-117
119. 37 and 118

(identify material relating to question 4)

120. exp heart diseases/
121. (cardi\$ adj (disease or disorder or failure)).tw.
122. (heart adj (disease or disorder or failure)).tw.
123. (ventricular adj (dysfunction or failure)).tw.
124. or/120-123
125. 37 and 124

126. or/70,98,111,119,125

Embase

(identify material related to respiratory problems)

- 22 exp Respiratory tract disease/
- 23 (respirat\$ adj tract adj (infection\$ or disease\$ or disorder)).tw.
- 24 (respirat\$ adj (infection\$ or disease\$ or disorder\$)).tw.
- 25 (pulmonary adj (infection\$ or disease\$ or disorder\$)).tw.
- 26 or/22-25
- 27 21 and 26
- 28 exp Sleep apnea syndrome/
- 29 (sleep adj apn?ea).tw.
- 30 28 or 29
- 31 27 not 30

(identify material related to questions 1, 2 (part 3))

- 32 diagnosis/
- 33 diagnos\$.tw.
- 34 detect\$.tw.
- 35 (sensitivity or specificity).tw.
- 36 exp thorax radiography/
- 37 Bronchoscopy/
- 38 (radiography or x-ray or bronchoscopy).tw.
- 39 exp anoxia/
- 40 exp hypercapnia/
- 41 (anoxi\$ or anox?emi\$).tw.
- 42 (hypoxi\$ or hypox?emi\$).tw.
- 43 hypercapnia.tw.
- 44 wheez\$.tw.
- 45 breathlessness.tw.
- 46 dyspn?ea.tw.
- 47 (cheynes-stoke adj respiration).tw.
- 48 hoarseness.tw.
- 49 (mouth adj breathing).tw.
- 50 sputum.tw.
- 51 (haemoptysis or hemoptysis).tw.
- 52 apn?ea.tw.
- 53 cough\$.tw.
- 54 (arterial adj oxygen).tw.
- 55 (arterial adj carbon adj dioxide).tw.
- 56 or/32-55
- 57 31 and 56
- 58 exp diagnostic techniques, respiratory system/
- 59 exp respiratory tract diseases/di
- 60 exp "signs and symptoms, respiratory"/
- 61 or/58-60
- 62 61 not 30

- 63 21 and 62
- 64 57 or 63

(identify material relating to questions 2 (parts 1,2))

- 65 exp respiratory tract diseases/th
- 66 exp artificial ventilation/
- 67 Oxygen therapy/
- 68 (oxygen adj inhalation adj therapy).tw.
- 069 ((oxygen or oxygenation) adj therapy).tw.
- 70 Physiotherapy/
- 71 (chest adj (physiotherapy or massage)).tw.
- 72 (chest adj physical adj therapy).tw.
- 73 exp nebulizer/
- 74 (nebuli?er\$ or vapo?rizer\$).tw.
- 75 inhaler/
- 76 Ventilator/
- 77 (inhaler\$ or ventilator\$).tw.
- 78 Breathing exercise/
- 79 (artificial adj (airway\$ or ventilation)).tw.
- 80 Lung lavage/
- 81 ((bronchoalveolar or lung) adj lavage).tw.
- 82 Endotracheal intubation/
- 83 ((intratracheal or endotracheal) adj intubation).tw.
- 84 tracheotomy/
- 85 tracheostomy/
- 86 tracheo?tomy.tw.
- 87 ((mechanical or assisted) adj ventilation).tw.
- 88 or/73-87
- 89 21 and 88
- 90 (65 or 66) and 21
- 91 or/67-72
- 92 31 and 91
- 93 or/89-90,92

(identify material related to question 5)

- 94 respiratory tract diseases/dt
- 95 exp Antiinflammatory agent/dt [Drug Therapy]
- 96 exp Respiratory tract agent/
- 97 exp antitussive agent/
- 98 exp Decongestive agent/
- 99 or/94-98
- 100 (agent\$ or drug\$ or medicine\$).tw.
- 101 (glucocorticoid\$ or corticosteroid\$ or steroid\$).tw.
- 102 (bronchodilator\$ or expectorant\$).tw.
- 103 (decongestant\$ or antitussive\$).tw.
- 104 or/100-103
- 105 26 and 104
- 106 (99 or 105) and 21

(identify material related to question 3)

107 exp Antibiotic agent/
108 antibiot\$.tw.
109 (anti-microbial or antimicrobial).tw.
110 exp analgesia/
111 exp analgesic agent/
112 analges\$.tw.
113 or/107-112
114 31 and 113

(identify material related to question 4)

115 exp heart disease/
116 (cardi\$ adj (disease or disorder or failure)).tw.
117 (heart adj (disease or disorder or failure)).tw.
118 (ventricular adj (dysfunction or failure)).tw.
119 or/115-118
120 31 and 119
121 or/64,93,106,114,120

Fluid, Electrolyte and Renal Sub-group

- It was more effective for this search to identify all material relating to fluid, electrolytes and renal to cover the key questions rather than attempting to specify further in the search.
- The last section of the search included specific terms relating to treatments for such imbalances in order to be fully comprehensive.
- The MeSH terms “Kidney failure” and “Liver failure” were deliberately excluded from the Embase search and included only with the sub-headings “blood” and “urine” in Medline etc because they retrieved an overwhelming number of hits that failed largely to address the key questions. Similarly, terms relating to dialysis were further avoided as they tended to distort the search results.

Medline/Healthstar/Cochrane Library

28. exp water-electrolyte imbalance/
29. exp acid-base imbalance/
30. exp electrolytes/ad,ae,an,bl,du,tu
31. exp bicarbonates/ad,ae,an,bl,du,tu
32. urinary retention/
33. exp oliguria/
34. glycosuria, renal/
35. polyuria/
36. exp proteinuria/
37. hematuria/

38. fluid shifts/
39. blood volume/
40. hypovolemia/
41. shock, hemorrhagic/
42. hyperglycemia/
43. hypoglycemia/
44. hyperbilirubinemia/
45. exp kidney failure/bl,ur
46. exp liver failure/bl
47. thirst/
48. jaundice/
49. exp cholestasis/
50. hepatitis, toxic/
51. diabetes insipidus/
52. exp diabetic coma/
53. diabetic ketoacidosis/
54. or/28-53
55. 27 and 54
56. (fluid\$ adj2 (balance or imbalance)).tw.
57. (fluid\$ adj (overload or shift\$)).tw.
58. (oliguri\$ or oligouresi\$ or hypouresi\$).tw.
59. (proteinuri\$ or albumenuri\$).tw.
60. (polyuri\$ or glycosuri\$ or bilirubinuri\$).tw.
61. ((renal or kidney) adj salt\$ adj (loss or depletion)).tw.
62. (acid-base adj (balance or imbalance)).tw.
63. hypovol?emi\$.tw.
64. hypervol?emi\$.tw.
65. (hemorrhagic adj shock).tw.
66. (hyp??cal?emi\$ or hyp??natr?emi\$).tw.
67. (hyp??kal?emi\$ or hyp??potass?emi\$).tw.
68. hyp??bilirubinemi\$.tw.
69. milk-alkali.tw.
70. siadh.tw.
71. (adh adj syndrome).tw.
72. ((antidiuretic adj hormone) or vasopressin).tw.
73. (inappropriate adj secretion).tw.
74. 72 and 73
75. (schwartz-bartter adj syndrome).tw.
76. (water adj intoxication).tw.
77. hyp??osmol\$.tw.
78. hyp??glyc?emi\$.tw.
79. alkalosis.tw.
80. acidosis.tw.
81. ketoacidosis.tw.
82. (cholestasis or cholestatic).tw.
83. ((toxic adj hepatitis) or transaminiti\$).tw.
84. (polydipsi\$ or thirst).tw.
85. dehydrat\$.tw.
86. (diabetes adj insipidus).tw.
87. ((diabetic or insulin) adj coma).tw.
88. or/56-71
89. or/74-87

90. or/54,88-89
91. 27 and 90
92. exp fluid therapy/
93. exp hypotonic solutions/
94. isotonic solutions/
95. rehydration solutions/
96. hypertonic solutions/
97. exp plasma substitutes/
98. (fluid adj (therap\$ or treatment\$)).tw.
99. ((hyp?tonic or saline or isotonic) adj solution\$).tw.
100. rehydrat\$.tw.
101. (plasma adj substitute\$).tw.
102. (dextran\$ or hetastarch).tw.
103. (polygeline or povidine).tw.
104. ((hartmann or ringer) adj2 solution\$).tw.
105. or/92-104
106. 27 and 105
107. 91 or 106

Embase

- 22 exp electrolyte disturbance/
- 23 exp disorders of acid base balance/
- 24 electrolyte/ad,ae,dt
- 25 bicarbonate/ad,ae,an,do,dt
- 26 urine retention/
- 27 oliguria/
- 28 abnormal urine composition/
- 29 polyuria/
- 30 glycosuria/
- 31 exp proteinuria/
- 32 hematuria/
- 33 hemoglobinuria/
- 34 hypercalciuria/
- 35 hypocalciuria/
- 36 urine composition disorder/
- 37 fluid shift/
- 38 blood volume/
- 39 hypovolemia/
- 40 hemorrhagic shock/
- 41 exp hypoglycemia/
- 42 exp hyperglycemia/
- 43 abnormally high substrate concentration in blood/
- 44 abnormally low substrate concentration in blood/
- 45 hyperbilirubinemia/
- 46 thirst/
- 47 jaundice/
- 48 intrahepatic cholestasis/
- 49 cholestasis/
- 50 toxic hepatitis/

51 diabetes insipidus/
52 diabetic coma/
53 diabetic ketoacidosis/
54 hypoglycemic coma/
55 metabolic disorder/
56 or/22-55
57 (fluid\$ adj (balance or imbalance)).tw.
58 (fluid\$ adj (overload or shift\$)).tw.
59 (oliguri\$ or oligouresi\$ or hypouresi\$).tw.
60 (polyuri\$ or glycosuri\$ or bilirubinuri\$).tw.
61 ((renal or kidney) adj salt\$ adj (loss or depletion)).tw.
62 (acid-base adj (balance or imbalance or disorder)).tw.
63 hyp??vol?emi\$.tw.
64 (hemorrhagic adj shock).tw.
65 (hyp??calc?emi\$ or hyp??natr?emi\$).tw.
66 (hyp??kal?emi\$ or hyp??potass?emi\$).tw.
67 hyp??bilirubinemi\$.tw.
68 milk-alkali.tw.
69 siadh.tw.
70 (adh adj syndrome).tw.
71 ((antidiuretic adj hormone) or vasopressin).tw.
72 (inappropriate adj secretion).tw.
73 71 and 72
74 (proteinuri\$ or album?nuri\$).tw.
75 (schwartz-bartter adj syndrome).tw.
76 (water adj intoxication).tw.
77 hyp??osmol\$.tw.
78 hyp??glyc?emi\$.tw.
79 alkalosis.tw.
80 acidosis.tw.
81 ketoacidosis.tw.
82 (cholestasis or cholestatic).tw.
83 ((toxic adj hepatitis) or transaminitis).tw.
84 (polydipsi\$ or thirst).tw.
85 dehydrat.tw.
86 (diabetes adj insipidus).tw.
87 ((diabetic or insulin) adj coma).tw.
88 or/57-70
89 or/73-87
90 or/56,88-89
91 exp fluid therapy/
92 exp hypotonic solution/
93 exp isotonic solution/
94 exp oral rehydration solution/
95 exp rehydration/
96 hypertonic solution/
97 exp plasma substitute/
98 (fluid adj (therap\$ or treatment\$)).tw.
99 ((hyp??tonic or saline or isotonic) adj solution\$).tw.
100 rehydrat\$.tw.
101 (plasma adj substitute\$).tw.
102 (dextran\$ or hetastarch\$).tw.

- 103 (polygeline or povidone).tw.
- 104 ((hartmann or ringer) adj2 solution\$.tw.
- 105 or/91-104
- 106 (90 or 105) and 21

Sepsis Sub-group

- As with the Fluid, Electrolytes and renal sub-group, it was more effective to identify all material relating to sepsis in order to answer the key questions rather than attempting to specify further.

Medline/Healthstar/Cochrane Library

- 28. exp sepsis/
- 29. (sepsis or septic\$.tw.
- 30. (bacter?emi\$ or fung?emi\$).tw.
- 31. (parasit?emi\$ or vir?emi\$).tw.
- 32. sirs.tw.
- 33. (systematic adj inflammatory adj response).tw.
- 34. endotoxemia/
- 35. (endotox\$ or (toxic adj shock)).tw.
- 36. (specific adj infection).tw.
- 37. (specific adj bacterial adj infection).tw.
- 38. (blood adj poisoning).tw.
- 39. exp antisepsis/
- 40. (antisept?i\$ or asept?i\$).tw.
- 41. or/28-40
- 42. 27 and 41

Embase

- 22 Sepsis/
- 23 Septic shock/
- 24 Septicemia/
- 25 Bacteremia/
- 26 Fungemia/
- 27 (sepsis or septic\$.tw.
- 28 (bacter?emi\$ or fung?emi\$).tw.
- 29 (parasit?emi\$ or vir?emi\$).tw.
- 30 sirs.tw.
- 31 (systematic adj inflammatory adj response).tw.
- 32 Endotoxemia/
- 33 (endotox\$ or (toxic adj shock)).tw.
- 34 (specific adj infection).tw.
- 35 (specific adj bacterial adj infection).tw.
- 36 (blood adj poisoning).tw.

37 exp asepsis/
38 (antisept?i\$ or aseps?i\$).tw.
39 or/22-38
40 21 and 39

June 2002

Update Searches

Update Searches were done for all subgroups for systematic reviews, RCTs and Observational Studies. The generic stem for the postoperative period was modified so that it excluded children rather than limiting to adults. Searches were re-run over the period 1993-2001 in order to pick up any extra references using the modified generic stem. The new search results were presented to the group members for selection and appraisal.

Nutrition

A set of key questions were devised to address the issue of nutrition in the postoperative period. These were scrapped completely by Ken Fearon who designed a new set of nutrition key questions. No responsibility was taken however, for the reviewing of literature relating to references found in for this potential search. The group are yet to decide if they will persue nutrition further.

Pain Management

A search was conducted for existing evidence-based guidelines on pain management. Results were sent to Rob Smith.

January 2003

It was agreed that the guideline should include nutrition in the postop period. Based on the key questions, searches were conducted in Medline, Embase, Cochrane Library for Systematic Reviews, RCTs, and Observational Studies. The year range used was 1996-2003. Rob Smith and Ken Fearon have received the sifted list of Systematic Reviews and RCTs for selection and the observational studies are now being sifted.

Medline

1. exp Nutrition/
2. exp enteral nutrition/
3. exp parenteral nutrition/
4. nutrition disorders/
5. nutrition policy/
6. eating/
7. feeding behavior/
8. exp feeding methods/

9. nutrition assessment/
10. exp intubation, gastrointestinal/
11. exp jejunostomy/
12. exp Dietary Supplements/
13. exp Nutritional Support/
14. exp gastrostomy/
15. nutrition\$.tw
16. nutrient\$.tw.
17. nourish\$.tw.
18. malnutrition.tw.
19. malnourish\$.tw.
20. undernourish\$.tw.
21. undernutrition.tw.
22. overnutrition.tw.
23. (fed or food or feed\$.tw.
24. diet\$.tw.
25. enteral.tw.
26. parenteral.tw.
27. tpn.tw.
28. alimentation.tw.
29. hyperalimentation.tw.
30. (digestive adj tract adj intubation).tw.
31. jejunostom\$.tw.
32. gastrostom\$.tw.
33. ((stomach or gastrointestinal or nasogastric or nasojejunal or nasoenteric) adj (tub\$ or intub\$)).tw.
34. witzel.mp.
35. jf.tw.
36. peg.tw.
37. or/1-36
38. modified postop generic stem
39. 37 and 38

Embase

1. exp nutrition/
2. exp artificial feeding/ (
3. exp Nutritional Disorder/
4. exp digestive tract intubation/
5. exp jejunostomy/
6. nutrition.tw.
7. malnutrition.tw.
8. nourish\$.tw.
9. malnourish\$.tw.
10. undernourish\$.tw.
11. undernutrition.tw.
12. overnutrition.tw.
13. nutrient\$.tw.
14. diet\$.tw.
15. (food or feed\$ or fed).tw.
16. meal\$.tw.

17. enteral.tw.
18. parenteral.tw.
19. hyperalimentation.tw.
20. tpn.tw.
21. gastrostom\$.tw.
22. jejunostom\$.tw.
23. (digestive adj tract adj intubation).tw.
24. ((stomach or nasogastric or gastrointestinal or nasojejunal or nasoenteric) adj (tub\$ or intub\$)).tw.
25. jf.tw.
26. exp gastrostomy/
27. exp parenteral nutrition/
28. witzel.mp.
29. diet supplementation/
30. alimentation.tw.
31. exp percutaneous endoscopic gastrostomy/
32. peg.tw.
33. or/1-32
- 34.modified postop generic stem
35. 33 and 34