

## Guideline topic: Bronchiolitis in Children

### General comments

### Search coverage

#### **Patient searches** (run on 10th May 2004)

The patient search stem was run against both the CCI and SIGN patient strategies as a comparison. The numbers were small for both searches. While there was not a big overlap, both gave 5 of the 8 themes identified. Themes were: economics; genetics; hospital admission; hospital-acquired infection; parental support; related diseases later in life; smoking/ environmental factors; and treatment.

Databases covered: **Medline, Embase, CINAHL, HMIC**      Dates covered: 1996-2004

Total hits:	Pre-sifted result:
CCI – 34 refs	CCI – 18 refs
SIGN – 35 refs	SIGN – 16 refs
	Combined total – 35 refs.

#### **Guidelines** (run on 11<sup>th</sup> May 2004)

The guideline search used the patient stem.

##### Websites with relevant guidelines:

Agency for Health Care Research and Quality (AHRQ)  
Canadian Medical Association  
National Guidelines Clearinghouse  
NeLH Guidelines Finder  
Google search

##### Databases covered:

**Embase,  
Medline,  
CINAHL**

(all 1996-2004)

Total hits: 6 from website search, 15 from database search (after pre-sifting, 128 initially)

Guidelines evaluated using AGREE instrument:

#### **Systematic reviews**

##### Databases covered:

**Embase,  
Medline,  
CINAHL  
Cochrane Library**

##### Dates covered:

1999-2004

Total hits: 63	Pre-sifted result: 29	Sifted result:
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**RCTs** - There was not enough time to sift the search results prior to the meeting, so the group selected from the un-sifted results. These selections were then sifted to remove non-RCTs before ordering.

##### Databases covered:

Embase  
Medline  
CINAHL  
NEED (KQ5 only)

##### Dates covered:

2000-2005

<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
SG1 – 517	105 (subgroup selection)	28
SG2 - 455	18	8
SG3 - 456	64	28

### **Observational studies**

*Databases covered:*  
 Medline  
 Embase  
 CINAHL

*Dates covered:*  
 2000-2005

<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
SG1 - 745	198	131
SG2 (Obs and Dia)- 805	135	41
SG3 - 403	82	21

### **Diagnostic studies**

*Databases covered:*

*Dates covered:*

*Total hits:*

*Pre-sifted result:*

*Sifted result:*

### **Economic studies (KQ5 only)**

*Databases covered:* NEED

*Dates covered:*

*Total hits:* 33

*Pre-sifted result:* 12

*Sifted result:* 10

### **Supplementary searches**

*Databases covered:*

*Dates covered:*

*Total hits:*

*Pre-sifted result:*

*Sifted result:*

### **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 and generic stem:**

- |   |  |
|---|--|
| 1. exp BRONCHIOLITIS/<br>2. bronchiolitis.tw. | 25. pneumovir\$.tw.<br>26. Paramyxoviridae Infections/ |
|---|--|

<p>3. Respiratory Syncytial Virus Infections/  4. exp bronchiolitis, viral/  5. or/1-4  6. bronchiole\$.tw.  7. lower respiratory tract\$.tw.  8. Respiratory Syncytial Viruses/  9. Respiratory Syncytial Virus, Human/  10. rsv.tw.  11. respiratory syncytial vir\$.tw.  12. or/6-11  13. inflammation/  14. respiratory tract infections/  15. (inflammation or inflame\$.tw).  16. infect\$.tw.  17. or/13-16  18. 12 and 17  19. Respiratory Sounds/  20. wheez\$.tw.  21. crackle\$.tw.  22. or/19-21  23. 22 and 12  24. PNEUMOVIRUS INFECTIONS/</p>	<p>27. paramyxovir\$.tw.  28. Adenoviridae Infections/  29. adenovir\$.tw.  30. Mycoplasma Infections/  31. mycoplasma.tw.  32. pneumoniae.tw.  33. exp viral diseases/  34. ((viral or virus) adj2 (infect\$ or disease\$)).tw.  35. or/24-34  36. 35 and (6 or 7)  37. Bronchopneumonia/  38. bronchopneumonia.tw.  39. acute bronchitis.tw.  40. or/37-39  41. 40 and (8 or 9 or 10 or 11 or 35)  42. 5 or 18 or 23 or 36 or 41  43. (child\$ or boy\$ or girl\$ or paediatr\$ or pediater\$ or neonate or baby\$ or infant\$.tw).  44. 42 and 43  45. limit 42 to (all infant or all child &lt;0 to 18 years &gt;)  46. 44 or 45</p>
<p><b>SG1 stem:</b>  1. risk factors/  2. risk factor\$.tw.  3. exp heart defects, congenital/  4. ((heart or coronary or cardiac) adj2 (defect\$ or disease\$ or disorder\$ or abnormalit\$ or congenital)).tw.  5. neonatal cardiopath\$.tw.  6. exp fetal development/  7. exp infant, newborn/  8. premature birth/  9. gestational age/  10. infant, premature diseases/  11. (prematu\$ or pre-matur\$ or immatur\$ or gestation\$.tw).  12. exp lung diseases/  13. ((lung or pulmonary) adj2 (disease\$ or disorder\$)).tw.  14. exp smoking/  15. tobacco smoke pollution/  16. (smoke\$ or smoking or cigarette\$ or cigar\$ or pipe\$.tw).  17. "age of onset"/  18. exp age factors/  19. (age adj2 (onset or outbreak or inception or occurrence or gestation\$)).tw.  20. exp infant nutrition/  21. ((breast or bottle or formula) adj2 (feed\$ or nutrition or milk)).tw.  22. birth order/  23. exp multiple birth offspring/  24. siblings/  25. (first birth or birth order or sibling\$ or brother\$ or sister\$ or twin\$ or triplet\$ or quad\$ or quin\$ or superfetation).tw.  26. exp hypersensitivity, immediate/  27. (atopic or atopy or hypersensitiv\$.tw).  28. ((pre-admission or preadmission or prehospital or pre-hospital) adj2 (anti-biotic\$ or antibiotic\$ or anti-</p>	<p>78. (immunoglobulin\$ or immun\$ globulin\$.tw).  79. exp antibodies, monoclonal/  80. (palivizumab or monoclonal antibod\$ or monoclonal anti-bod\$ or mono-clonal antibod\$ or mono-clonal anti-bod\$.tw).  81. or/73-80  82. anxiety/  83. (anxiet\$ or worr\$ or concern\$.tw).  84. health education/  85. ((patient or health or medical) adj2 (information or knowledge or education or understand\$)).tw.  86. (education\$ adj program\$.tw).  87. support group\$.tw.  88. Physician-Patient Relations/  89. Professional-Patient Relations/  90. Nurse-Patient Relations/  91. doctor-patient relations/  92. professional-family relations/  93. leaflet\$.tw.  94. exp PAMPHLETS/  95. exp INTERNET/  96. booklet\$.tw.  97. exp Mass Media/  98. pamphlet\$.tw.  99. tape\$.tw.  100. video\$.tw.  101. sheet\$.tw.  102. (postcard\$ or post card\$.tw).  103. (counsel?r\$ or counsell?r\$.tw).  104. macmillan nurs\$.tw.  105. (care give\$ or caregive\$.tw).  106. (cope or coping).tw.  107. fear.tw.  108. exp COMMUNICATION/  109. exp ANXIETY/  110. exp CAREGIVERS/  111. exp Mental Health/  112. exp Family Health/</p>

<p>bacterial\$ or antibacterial\$ or drug\$).tw.  29. prescriptions, drug/  30. drug utilization/  31. exp social problems/  32. exp social class/  33. exp social conditions/  34. exp social welfare/  35. exp socioeconomic factors/  36. exp housing/  37. (poverty or socio-economic\$ or socioeconomic\$ or deprivation or deprive\$ or housing or house\$ or postcode\$ or social).tw.  38. minority groups/  39. exp ethnic groups/  40. (ethnicity or ((ethnic or minority) adj2 (group\$ or people or person\$))).tw.  41. exp environment, controlled/  42. heating.tw.  43. exp nurseries/  44. child day care centers/  45. exp child care/  46. (nursery\$ or day care or child care).tw.  47. or/1-46  48. cross infection/  49. exp infection control/  50. patient isolators/  51. cohorting.tw.  52. ((ward or nosocomial or hospital or cross or control) adj2 (infect\$ or contaminat\$)).tw.  53. (isolation or quarantine or quarantane).tw.  54. ((infection or disease) adj control).tw.  55. transmission.tw.  56. exp disease transmission/  57. exp communicable disease control/  58. exp handwashing/  59. (handwash\$ or hand wash\$ or hand clean\$ or hand dry\$ or hand scrub\$).tw.  60. exp protective devices/  61. (gown\$ or glove\$ or eye protect\$ or mask\$).tw.  62. (barrier adj2 (nurs\$ or care)).tw.  63. disposable equipment/  64. visitors to patients/  65. visitor\$.tw.  66. or/48-65  67. exp ambulatory care facilities/  68. family practice/  69. community health nursing/  70. (outpatient\$ or out-patient\$ or clinic or clinics or health visitor or general practice).tw.  71. ((gp or doctor\$ or nurse\$ or physician\$) adj surgery\$).tw.  72. or/67-71  73. exp immunization/  74. exp vaccines/  75. (immunization\$ or immunisation\$ or vaccination\$ or vaccine\$).tw.  76. (immunologic adj (stimulation or sensitiv\$)).tw.  77. exp immunoglobulins/</p>	<p>113. exp DEPRESSION/  114. exp Patient Participation/  115. exp Patient Care Team/  116. exp Professional-Family Relations/  117. exp Truth Disclosure/  118. *Counseling/  119. *Pastoral Care/  120. *ADAPTATION, PSYCHOLOGICAL/  121. exp Patient Education/  122. exp SPOUSES/  123. exp Social Isolation/  124. (psychosocial or psycho social).tw.  125. psychological distress.tw.  126. exp Social Support/  127. exp Attitude to Health/  128. Communication Barriers/  129. (advice or advisory).tw.  130. ((cooperation or co-operation) adj3 patient\$).tw.  131. exp Patient Acceptance of Health Care/  132. Patient Dropouts/  133. "breaking bad news".tw.  134. "information need\$".tw.  135. "information resource\$".tw.  136. patient literature.tw.  137. Tape Recording/  138. video recording/  139. exp Emergency Medical Services/  140. (nhs24 or nhs direct or a&amp;e or accident or emergenc\$ or casualty).tw.  141. clinical diagnosis.tw.  142. or/82-141  143. patient readmission/  144. (follow-up or followup or re-admission or readmission).tw.  145. nurse specialist.tw.  146. or/143-145  147. chronic disease/  148. "severity of illness index"/  149. "length of stay"/  150. (chronic adj (symptom\$ or illness or disease\$)).tw.  151. ((duration or length or time) adj2 (stay or admission)).tw.  152. ((severity or severe) adj2 (score\$ or scoring or index\$ or indices or illness or disease)).tw.  153. or/147-152  154. time factors/  155. time/  156. time factor\$.tw.  157. symptom persist\$.tw.  158. or/154-157  159. exp "referral and consultation"/  160. referral.tw.  161. cough/  162. (wheez\$ or cough\$).tw.  163. (159 or 160) and (161 or 162)  164. 47 or 66 or 72 or 81 or 142 or 146 or 153 or 158 or 163</p>
<p><b>SG2 stem:</b>  1. exp *bronchiolitis/di</p>	

<p>2. ((patient or clinical or medical) adj assess\$).tw.  3. exp respiration/  4. exp respiratory insufficiency/  5. mouth breathing/  6. airway resistance/  7. ((respirate\$ or ventilat\$ or breathing) adj2 (rate\$ or depression or function or increased or distress or difficult\$)).tw.  8. work of breathing/  9. "increased work of breathing".tw.  10. auscultation/  11. auscultation.tw.  12. respiratory sounds/  13. ((breathing or respirat\$ or ventilat\$) adj2 (sound\$ or noise\$)).tw.  14. (wheeze\$ or crackle\$ or crepitation\$ or creps).tw.  15. (rhinorrhea or rhinorrhoea or nasal liquorrhea or nasal liquorrhoea).tw.  16. exp feeding methods/  17. exp infant nutrition/  18. feeding.tw.  19. exp apnea/  20. (apnea or apnoea).tw.  21. recession.tw.  22. exp fever/  23. (fever or pyrexia or hyperthermia).tw.  24. "age of onset"/  25. age factors/  26. (age adj2 (onset or outbreak or inception or occurrence or gestational)).tw.  27. seasons/  28. (seasonality or seasonal variation or season\$).tw.  29. (spring or summer or autumn or winter).tw.  30. or/1-29  31. exp "Severity of Illness Index"/  32. ((clinical or severity) adj2 (score\$ or index\$ or indices)).tw.  33. illness severity.tw.  34. exp decision making/  35. decision making.tw.  36. exp "referral and consultation"/  37. ((hospital or secondary care) adj2 (referral or admission)).tw.  38. (gatekeep\$ or hospitali?ation or hospitali?e\$).tw.  39. (referred or referral\$).tw.  40. exp hospitalization/  41. patient admission/  42. exp primary healthcare/  43. exp delivery of healthcare/  44. family practice/  45. (primary adj (care or healthcare or health care or practice)).tw.  46. aftercare/  47. (aftercare or after care).tw.  48. ((clinical or patient) adj review\$).tw.  49. (follow-up or followup).tw.  50. or/31-49  51. *diagnostic tests, routine/  52. *molecular diagnostic techniques/  53. oxygen/  54. oximetry/</p>	<p>59. exp serologic tests/  60. ((serolog\$ or antibod\$) adj (test\$ or technique\$ or assay\$)).tw.  61. exp immunoblotting/  62. exp immunoenzyme techniques/  63. (elisa or enzyme linked immunosorbent assay\$.tw.  64. (riba or recombinant immunoblot\$ assay\$ or recombinant immuno blot\$ assay\$).tw.  65. (immunoenzyme adj (technique\$ or method\$ or assay\$)).tw.  66. exp polymerase chain reaction/  67. (pcr or rtPCR or rt-pcr or polymerase chain reaction).tw.  68. point-of-care systems/  69. ((near patient or nearpatient or bedside or bed side) adj test\$).tw.  70. exp radiography, thoracic/  71. ((chest or thoracic or thorax) adj2 (radiograph\$ or x-ray\$ or xray\$)).tw.  72. (radiolog\$ adj (investigation\$ or test\$ or pattern\$)).tw.  73. exp blood gas analysis/  74. (blood gas\$ or oximetry or oxymetry).tw.  75. exp blood cell count/  76. (fbc or cbc or blood count).tw.  77. exp hematologic tests/  78. ((hematolog\$ or haematolog\$ or blood) adj2 (test\$ or detection or investigation\$)).tw.  79. exp bacterial infection/  80. superinfection/  81. ((bacteria\$ or blood or urinary or urine\$) adj2 (infection\$ or culture\$ or test\$ or detection or investigation\$)).tw.  82. exp urinary tract infections/  83. urinalysis/  84. urinalysis.tw.  85. (superinvasion or superinfection).tw.  86. exp microbiology/  87. (microbiolog\$ adj2 (test\$ or invasion\$ or detection)).tw.  88. c-reactive protein/  89. (c-reactive protein or crp).tw.  90. Blood Urea Nitrogen/  91. creatinine/  92. urea/  93. exp electrolytes/  94. u&amp;e\$.tw.  95. (urea or electrolyte\$ or creatinine\$).tw.  96. (biochemic\$ adj2 (test\$ or investigation\$ or detection)).tw.  97. or/51-96  98. exp intensive care units/  99. exp critical care/  100. high depend?n\$.tw.  101. ((intensive or critical or respiratory) adj care).tw.  102. (icu or hdu).tw.  103. or/98-102  104. patient discharge/  105. length of stay/  106. ((hospital or patient or planning) adj2 discharge).tw.</p>
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<p>55. ((oxygen or o2) adj2 (saturation or sats)).tw.  56. sao2.tw.  57. virology/  58. ((virology or virological) adj2 (test\$ or detection or investigation\$)).tw.</p>	<p>107. or/104-106  108. 30 or 50 or 97 or 103 or 107</p>
<p><b>SG3 stem:</b>  1. exp drug administration routes/  2. ((intranasal or intra-nasal or inhal\$ or oral\$ or instillation or infusiomn\$ or paerental or aerosol\$) adj2 (therap\$ or treatment\$ or administration or drug\$)).tw.  3. exp aerosols/  4. (parenteral adj2 infusion\$).tw.  5. exp "nebulizers and vaporizers"/  6. inhalation device\$.tw.  7. (atomi?er\$ or inhalator\$ or inhaler\$ or vapori?er\$ or vapouri?er\$ or nebuli?er\$).tw.  8. or/1-7  9. exp adrenal cortex hormones/  10. (adren\$ cortex or adren\$ cortic\$ or adrenalcortex or adrenalcortic\$ or adrenocortex or adrenocortic\$) adj hormone\$).tw.  11. (corticosteroid\$ or cortico-steroid\$ or corticoid\$ or adrenal steroid\$ or cortic\$ steroid\$).tw.  12. exp glucocorticoids/  13. (glucocorticoid\$ or glucocortoid\$ or glycocorticoid\$ or glycocortoid\$ or gluco-corticoid\$ or gluco-cortoid\$ or glyco-corticoid\$ or glyco-cortoid\$).tw.  14. mineralocorticoids/  15. (mineralocorticoid\$ or mineral-corticoid\$ or mineralocortoid\$ or mineral-cortoid\$).tw.  16. exp bronchodilator agents/  17. (bronchodilator\$ or bronchodilatant\$ or broncholytic\$ or bronchospasmolytic\$ or bronchialdilator\$ or bronchialdiatant\$ or bronchodilat\$ or bronchial-dilat\$).tw.  18. epinephrine/  19. (epinephrin\$ or adrenalin\$ or epifrin\$ or epiphrin\$ or vaponefrin\$ or vaponephrin\$ or micronephrin\$ or micronefrin\$).tw.  20. exp leukotriene antagonists/  21. (montelukast or (leukotriene adj2 (antagonist\$ or block\$))).tw.  22. exp anti-bacterial agents/  23. antibiotic\$.tw.  24. ((anti-bacterial\$ or antibacterial\$ or anti-mycobacterial or antimycobacterial) adj (treatment or therap\$ or agent\$ or drug\$)).tw.  25. bacteriocid\$.tw.  26. exp antiviral agents/  27. ((antiviral or anti-viral or antiviral or anti-virus or antiretroviral or anti-retroviral) adj (agent\$ or drug\$ or treatment\$ or therap\$)).tw.  28. viral inhibitor\$.tw.  29. ribavirin/  30. (ribavirin or ribovirin or vramide or virazole or ribamide or ribamidil or ribamidyl or tribavirin or tribovirin or tribovarin).tw.  31. suction/  32. (suction or aspiration).tw.</p>	<p>45. exp medicine, traditional/  46. homeopathy/  47. materia medica/  48. drugs, chinese herbal/  49. exp phytotherapy/  50. (homeopath\$ adj (remed\$ or medicine\$ or agent\$ or drug\$)).tw.  51. homeopathy.tw.  52. (traditional adj2 medicine).tw.  53. (phytotherapy or herb\$ therap\$ or herb\$ treatment\$ or nosode\$).tw.  54. (complementary adj (therap\$ or treatment\$)).tw.  55. exp oxygen inhalation therapy/  56. extracorporeal membrane oxygenation/  57. exp oxygenators/  58. ((oxygen or o2) adj2 (therap\$ or treatment or administration)).tw.  59. ecmo.tw.  60. extracorporeal membrane oxygenation.tw.  61. (extracorporeal adj2 (membrane or oxygenation)).tw.  62. (oxygenation adj2 (membrane or extracorporeal)).tw.  63. oxygenator\$.tw.  64. exp respiratory therapy/  65. (respirat\$ adj2 (therap\$ or treatment or administration)).tw.  66. humidity/  67. humidity.tw.  68. exp positive-pressure respiration/  69. (peep or cpap\$ or cppb or cppv or aprv or ncpap).tw.  70. (positive pressure respiration or postive end-expiratory pressure).tw.  71. ((continuous positive airway\$ or continuous positive pressure) adj2 (pressure or breath\$ or ventilat\$)).tw.  72. airway pressure release ventilation.tw.  73. or/9-72  74. ((multidisciplinary or "multi disciplinary") adj2 (team\$ or network\$ or work\$)).tw.  75. ((interdisciplinary or "inter disciplinary") adj2 (team\$ or network\$ or work\$)).tw.  76. ((interprofessional or "inter professional") adj2 (team\$ or network\$ or work\$)).tw.  77. health care team\$.tw.  78. medical care team\$.tw.  79. patient care team\$.tw.  80. ((transdisciplinary or "trans disciplinary") adj2 (team\$ or network\$ or work\$)).tw.  81. managed clinical network\$.tw.  82. (mdt or mcn).tw.  83. exp patient care team/  84. exp clinical protocols/  85. critical pathways/</p>

<p>33. steam/  34. steam bath/  35. steam\$.tw.  36. exp nasal decongestants/  37. decongest\$.tw.  38. (vasoconstrictor\$ adj2 nasal).tw.  39. enteral nutrition/  40. intubation, gastrointestinal/  41. ((enteral or enteric or tube or nasogastric or nasogastric or nasal-gastric or gastric or force or gastrointestinal or gastrointestinal) adj2 (feed\$ or nutrition or intubation)).tw.  42. exp physical therapy techniques/  43. (physio\$ or physio-therapy or physical therapy or physical treatment).tw.  44. exp complementary therapies/</p>	<p>86. exp patient care planning/  87. exp patient care management/  88. home nursing/  89. community health nursing/  90. "continuity of patient care"/  91. ((hospital or clinical or treatment or research or care or integrated) adj2 (protocol\$ or pathway\$ or path\$)).tw.  92. patient management.tw.  93. (homecare adj2 nurs\$).tw.  94. health visitor\$.tw.  95. community nurse\$.tw.  96. exp "laboratory techniques and procedures"/  97. laboratory diagnosis.tw.  98. or/74-97  99. 8 or 73 or 98</p>