

Asthma Living Guideline Search Narrative - Paediatric diagnosis

Databases covered:

- Cochrane Library (all databases)
- CINAHL
- Embase
- Medline

As initial recall exceeded 10,000 hits in Medline for 2003-06, the decision was made to use a paediatric filter (as the diagnostic filter was part of the original problem affecting the sensitivity of the search). The Cochrane Child Health filter (<http://www.ualberta.ca/ARCHE/filters.html>) was used with corrections for typos.

Database: Ovid MEDLINE(R) < 1950 to July Week 4 2007 >
Search Strategy:

1 exp Child/ (1194947)
2 exp Adolescent/ (1190667)
3 exp Infant/ (742666)
4 exp Minors/ (1812)
5 exp Pediatrics/ (31053)
6 exp Nurseries/ (1823)
7 or/1-6 (2196024)
8 child\$.hw. (1240363)
9 child\$.xm. (73871)
10 adolescen\$.hw. (1191833)
11 adolescen\$.xm. (0)
12 infan\$.hw. (753285)
13 infan\$.xm. (785261)
14 neonat\$.hw. (27920)
15 neonat\$.xm. (0)
16 youth\$.hw. (516)
17 youth.xm. (0)
18 child\$.mp. (1391267)
19 paediatric\$.mp. (21467)
20 pediatric\$.mp. (129854)
21 neonat\$.mp. (151035)
22 newborn\$.mp. (491971)
23 infan\$.mp. (804166)
24 preemie\$.mp. (63)
25 (baby or babies).mp. (34951)
26 (nursery or nurseries).mp. (7252)
27 toddler\$.mp. (2981)
28 boy\$.mp. (70732)
29 girl\$.mp. (65817)
30 (schoolage\$ or (school adj1 age\$)).mp. (7752)
31 (preschool\$ or (pre adj1 school\$)).mp. (584165)

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32 nursery school\$.mp. (730)
 33 kindergar?en\$.mp. (2440)
 34 (schoolchild\$ or (school adj1 child\$)).mp. (18884)
 35 primary school\$.mp. (3843)
 36 elementary school\$.mp. (3569)
 37 (prepubescen\$ or postpubescen\$ or (pre adj1 pubescen\$) or (post adj1
 pubescen\$)).mp. (524)
 38 secondary school\$.mp. (3104)
 39 (pubescen\$ or pubert\$).mp. (25069)
 40 adolescen\$.mp. (1203881)
 41 juvenil\$.mp. (46485)
 42 underage\$.mp. (285)
 43 (teen or teens).mp. (3912)
 44 teenage\$.mp. (9517)
 45 (youth or youths).mp. (17834)
 46 (highschool\$ or (high adj1 school\$)).mp. (10849)
 47 kid\$1.mp. (3149)
 48 offspring.mp. (27189)
 49 or/8-48 (2559439)
 50 infan\$.jw. (5670)
 51 neonat\$.jw. (11471)
 52 child\$.jw. (82509)
 53 pediatric\$.jw. (220690)
 54 paediatric\$.jw. (34623)
 55 adolescen\$.jw. (19060)
 56 youth\$.jw. (244)
 57 school\$.jw. (11437)
 58 or/50-57 (368755)
 59 7 or 49 or 58 (2601552)
 60 exp Asthma/ or asthma\$.mp. (97873)
 61 limit 60 to ("all infant (birth to 23 months)" or "all child (0 to 18 years)" or
 "newborn infant (birth to 1 month)" or "infant (1 to 23 months)" or "preschool child (2 to
 5 years)" or "child (6 to 12 years)" or "adolescent (13 to 18 years)") (35692)
 62 59 or 61 (2601552)
 63 exp "Sensitivity and Specificity"/ (233130)
 64 sensitivity.tw. (319514)
 65 specificity.tw. (210808)
 66 ((pre test or pretest) adj probability).tw. (616)
 67 post test probability.tw. (182)
 68 predictive value\$.tw. (37888)
 69 likelihood ratio\$.tw. (3869)
 70 or/63-69 (628496)
 71 Asthma/di [Diagnosis] (9702)
 72 asthma.tw. (72510)
 73 exp Diagnosis/ (4134326)
 74 diagnos\$.tw. (1039229)
 75 72 and (73 or 74) (31989)
 76 71 or 75 (35804)
 77 70 and 76 (2933)
 78 limit 77 to yr= "2003 - 2005" (549)

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79 post-test probability.tw. (182)
 80 pre-test probability.tw. (171)
 81 67 not 79 (0)
 82 80 not 66 (0)
 83 76 (35804)
 84 limit 83 to yr="2003 - 2006" (7688)
 85 wheez\$.mp. (6263)
 86 chest tightness.mp. (542)
 87 exp Cough/ or cough\$.mp. (27941)
 88 Dyspnea/ or breathless\$.mp. (11324)
 89 symptom\$.mp. (460113)
 90 (shortness adj2 breath).tw. (2482)
 91 exp Respiratory Function Tests/ or exp Peak Expiratory Flow Rate/ or peak
 expiratory flow.mp. (156984)
 92 PEF.mp. (2323)
 93 exp Forced Expiratory Volume/ or FEV1.mp. or exp Spirometry/ (32501)
 94 bronchodilator response.mp. (476)
 95 exp Nitric Oxide/ or exhaled nitric oxide.mp. or exp Breath Tests/ (55625)
 96 exhaled NO\$.mp. [mp=title, original title, abstract, name of substance word,
 subject heading word] (595)
 97 exp Leukocyte Count/ (63491)
 98 induced sputum eosinophil count.mp. (6)
 99 sputum eosinophil count\$.mp. (80)
 100 exp Eosinophils/ or exp Sputum/ or induced sputum.mp. (28786)
 101 methacholine.mp. or exp Methacholine Chloride/ (8085)
 102 exp Exercise Test/ or exercise challenge.mp. or exp Bronchial Provocation Tests/
 (44282)
 103 exp Mannitol/ or mannitol challenge.mp. (9644)
 104 AMP.mp. or exp Adenosine Monophosphate/ (103060)
 105 exp Adenosine/du [Diagnostic Use] (777)
 106 adenosine hyperrespons\$.mp. [mp=title, original title, abstract, name of
 substance word, subject heading word] (5)
 107 atopy.mp. (5605)
 108 atopic.mp. (21061)
 109 exp Eczema/ (7241)
 110 eczema\$.mp. (12894)
 111 or/85-110 (902629)
 112 exp Asthma/ (80531)
 113 112 and (73 or 74) (35416)
 114 limit 113 to yr="2003 - 2006" (6255)
 115 114 or 84 (8359)
 116 115 and 111 (5802)
 117 or/85-88,90-110 (476057)
 118 115 and 117 (5019)
 119 116 not 118 (783)
 120 116 or 71 (14228)
 121 limit 120 to yr="2003 - 2006" (6365)
 122 121 (6365)
 123 limit 122 to yr="2003 - 2004" (3092)
 124 from 123 keep 1-3068 (3068)

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125 121 (6365)
 126 limit 125 to yr="2005 - 2006" (3273)
 127 from 126 keep 1-2895 (2895)
 128 121 and 62 (3169)
 129 128 (3169)
 130 limit 129 to yr="2003" (715)
 131 128 (3169)
 132 limit 131 to yr="2004" (800)
 133 128 (3169)
 134 limit 133 to yr="2005" (782)
 135 128 (3169)
 136 limit 135 to yr="2006" (872)

Recall, sift and ordering statistics for paediatric diagnosis were as follows:

Year	No. citations returned by search	No. citations remaining after first sift (MHB)	No. citations remaining after second sift (GD/BH)	No. citations remaining after third sift (JP/JC)
2003	1242	96	33	24
2004	1333	106	40	27
2005	1304	98	29	23
2006	1244	79	(no further sift at this stage)	(papers sifted further within key questions, not by year; see below)
TOTAL	5123	379	181	

In addition to the searches above (designed to identify papers broadly about the diagnosis of asthma in children), separate, additional searches were run specifically for key questions 3, 4, 9, and 10, as the concepts within these questions were not covered in the earlier search.

Key Question	No. citations returned by search	No. citations remaining after first sift	No. papers ordered
1			14
2			25
3	2123	78	0
4	2123	78	0
5			9
6			14
7			12
8			40
9	717	17	6
10	717	17	7

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Total number of papers ordered: 127

(not unique papers; some individual papers were ordered for more than one question and therefore appear more than once in this total)

The additional strategies were as follows.

Key questions 3 and 4 (differential diagnosis):

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38 secondary school\$.mp. (3104)
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 40 adolescen\$.mp. (1203881)
 41 juvenil\$.mp. (46485)
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 44 teenage\$.mp. (9517)
 45 (youth or youths).mp. (17834)
 46 (highschool\$ or (high adj1 school\$)).mp. (10849)
 47 kid\$1.mp. (3149)
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- 86 chest tightness.mp. (542)
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- 92 PEF.mp. (2323)
- 93 exp Forced Expiratory Volume/ or FEV1.mp. or exp Spirometry/ (32501)
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- 95 exp Nitric Oxide/ or exhaled nitric oxide.mp. or exp Breath Tests/ (55625)
- 96 exhaled NO\$.mp. [mp=title, original title, abstract, name of substance word, subject heading word] (595)
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- 98 induced sputum eosinophil count.mp. (6)
- 99 sputum eosinophil count\$.mp. (80)
- 100 exp Eosinophils/ or exp Sputum/ or induced sputum.mp. (28786)
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- 105 exp Adenosine/du [Diagnostic Use] (777)
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- 108 atopic.mp. (21061)
- 109 exp Eczema/ (7241)
- 110 eczema\$.mp. (12894)
- 111 or/85-110 (902629)
- 112 exp Asthma/ (80531)
- 113 112 and (73 or 74) (35416)
- 114 limit 113 to yr="2003 - 2006" (6255)
- 115 114 or 84 (8359)
- 116 115 and 111 (5802)
- 117 or/85-88,90-110 (476057)
- 118 115 and 117 (5019)
- 119 116 not 118 (783)
- 120 116 or 71 (14228)
- 121 limit 120 to yr="2003 - 2006" (6365)
- 122 chest deformity.mp. (145)
- 123 Pectus excavatum.mp. or Funnel Chest/ (1409)
- 124 accessory muscles.mp. or exp Respiratory Muscles/ (17543)
- 125 clubbed finger\$.mp. or Osteoarthropathy, Secondary Hypertrophic/ (1496)
- 126 finger clubbing.mp. (151)
- 127 Bronchiolitis Obliterans Organizing Pneumonia/ or pneumonia.mp. or exp Pneumonia/ (80092)
- 128 wet cough.mp. (18)
- 129 (wet adj1 cough).mp. [mp=title, original title, abstract, name of substance word, subject heading word] (18)

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130 exp Vomiting/ or vomiting.mp. (41378)
 131 exp Respiratory Tract Infections/ (222256)
 132 (severe adj2 respiratory).mp. [mp=title, original title, abstract, name of substance word, subject heading word] (7851)
 133 neonatal respiratory.mp. [mp=title, original title, abstract, name of substance word, subject heading word] (1264)
 134 exp Respiratory Distress Syndrome, Newborn/ (11697)
 135 Infant, Newborn/ and exp Lung Diseases/ (27710)
 136 focal signs in chest.mp. (0)
 137 chest focal signs.mp. [mp=title, original title, abstract, name of substance word, subject heading word] (0)
 138 focal signs.mp. (256)
 139 crackle\$.mp. or exp Respiratory Sounds/ (6878)
 140 abnormal cry\$.mp. or Crying/ (1614)
 141 dysphagia.mp. or exp Deglutition Disorders/ (34370)
 142 swallow\$.mp. (12421)
 143 failure to thrive.mp. or Failure to Thrive/ (3270)
 144 or/122-143 (376938)
 145 144 and 62 and 76 (3779)
 146 limit 145 to yr="2003 - 2006" (1000)
 147 146 not 121 (159)
 148 differential diagnosis.mp. or Diagnosis, Differential/ (318414)
 149 146 and 148 (81)
 150 144 and 148 (20615)
 151 limit 150 to yr="2003 - 2006" (3478)
 152 Asthma/ or asthma.mp. (95233)
 153 148 and 152 and 144 (942)
 154 limit 153 to yr="2003 - 2006" (174)
 155 154 and 62 (88)
 156 155 not 121 (12)
 157 144 not 121 (375538)
 158 limit 157 to yr="2003 - 2006" (56091)
 159 158 and 152 and 148 (25)
 160 59 and 60 (38461)
 161 160 and 144 (7785)
 162 71 or 73 or 74 or 148 (4591149)
 163 161 and 162 (4659)
 164 limit 163 to yr="2003 - 2006" (1101)
 165 from 164 keep 1-1066 (1066)

Key questions 9 and 10 (role of a trial of treatment in diagnosing asthma):

137 trial of treatment.mp. (45)
 138 test of treatment.mp. (6)
 139 trial of therapy.mp. (23)
 140 treatment outcome/ or treatment failure/ (138749)
 141 therapeutic trial.mp. (169)
 142 or/137-141 (138923)
 143 72 or 112 (18169)
 144 142 and 143 (1267)

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- 145 142 and 60 (1296)
- 146 145 and 59 (667)
- 147 146 and (71 or 73 or 74) (665)
- 148 from 146 keep 1-667 (667)

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