

Asthma Living Guideline Search Narrative - Pharmacological Management

March 2004

Searches were carried out on the key questions.

1. Are inhaled short acting β_2 agonists best given as required or on a regular basis in adults and in children above or below 5 years of age?
2. In infants and young children are the following drugs of value as bronchodilators?
 - Inhaled short-acting β_2 agonists
 - Ipratropium bromide
 - Oral β_2 agonist tablets or syrup
 - Theophyllines
3. Subsidiary question having identified which work, which is the most effective?
4. Which of the following drugs prevent exercise-induced asthma in adults and in children above or below 5 years of age?
 - Inhaled steroids
 - Short-acting β_2 agonists
 - Long-acting β_2 agonists
 - Theophyllines
 - Oral β_2 agonists
 - Anticholinergics
 - Leukotriene receptor antagonists
 - Cromones
5. Subsidiary question having identified which work, which is the most effective?
6. Which criteria should be used to indicate the need for the introduction of anti-inflammatory treatment in adults and in children above or below 5 years of age?
 - Relief inhaler needed more than once daily, once weekly, three times a week
 - Symptoms e.g. nocturnal asthma
 - Exacerbations
7. In adults and in children above or below 5 years of age taking inhaled short-acting β_2 agonists alone are the following interventions of value in terms of:
 - (1). Improving pulmonary function
 - (2). Decreasing symptoms
 - (3). Decreasing exacerbations
 - Inhaled steroids
 - Long-acting β_2 agonists
 - Theophyllines
 - Leukotriene receptor antagonists
 - Cromones

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8. Subsidiary question having identified which work, which is the most effective?
9. In adults and in children above or below 5 years of age taking inhaled steroids are the following interventions of value in terms of:
 - (1). Improving pulmonary function
 - (2). Decreasing symptoms
 - (3). Decreasing exacerbations
 - Increasing the dose of inhaled steroids
 - Long-acting β_2 agonists
 - Short-acting β_2 agonists
 - Theophyllines
 - Oral β_2 agonists
 - Anticholinergics
 - Leukotriene receptor antagonists
 - Cromones
10. Subsidiary question having identified which work, which is the most effective?
11. Having examined above at what dose of inhaled steroid should alternative strategies be considered?
12. Which treatments can reduce the dose of oral steroids in adults and in children above or below 5 years of age?
 - Inhaled steroids
 - Long-acting β_2 agonists
 - Short-acting β_2 agonists
 - Theophyllines
 - Oral β_2 agonists
 - Anticholinergics
 - Leukotriene receptor antagonists
 - Cromones
 - Immunosuppressive agents
13. In patients on oral steroids which drugs/intervention are needed/effective in preventing or treating the following?
 - Osteoporosis
 - Growth in children
 - Hypertension
14. Are inhaled steroids best given once daily, twice daily, four times daily in adults and in children above or below 5 years of age?
15. Is there any evidence that high dose step down is more effective than step up in adults and in children above or below 5 years of age?
16. Are there differences between inhaled steroid preparations in their ability to control asthma in adults and in children above or below 5 years of age?

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23 March 2004

Searches for asthma pharmacological management were conducted in the year range 2003-2004 on the following databases.

The Medline strategy was adapted for other databases.

- Cochrane Central Register of Controlled Trials
- Embase
- Medline

A main search combined all the questions except for the specific questions that related to children only, which were searched for separately.

2 April 2004

A search for Sodium Cromoglycate in children was carried out from 1966-2004 to allow this area to be reevaluated.

The Medline strategy was adapted for other databases.

- Cochrane Central Register of Controlled Trials
- Embase
- Medline

14 September 2004

The Main RCT search and Child RCT search was updated using the March search strategy.

A search for Ciclesonide was carried out back to 1999.

A search for Rhinitis was carried out back to 2001 as it had been missed out of the update searches.

The Medline strategy was adapted for other databases.

- Cochrane Central Register of Controlled Trials
- Embase
- Medline

Type of study	Duplicates removed	Sifted
Main RCT	1331	162
Child RCT	208	59
Sodium Cromoglycate	1527	191
Ciclesonide	38	7
Child RCT update	77	25
Main RCT update	450	52
Rhinitis	546	7

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Main strategy

Database: Ovid MEDLINE(R) < 1996 to March Week 2 2004 >

Search Strategy:

-
- 1 exp ASTHMA/ (22884)
 - 2 asthma.tw. (24653)
 - 3 1 and 2 (18613)
 - 4 exp ASTHMA/dt [Drug Therapy] (6998)
 - 5 exp OSTEOPOROSIS/ (10503)
 - 6 osteoporos\$.tw. (11186)
 - 7 exp HYPERTENSION/ (43145)
 - 8 blood pressure.tw. (45146)
 - 9 exp child/ (264688)
 - 10 exp GROWTH/ (64988)
 - 11 9 and 10 (8009)
 - 12 exp Child Development/ (6924)
 - 13 (growth adj2 child\$.tw. (2036)
 - 14 child growth.tw. (129)
 - 15 child development.tw. (617)
 - 16 or/12-15 (9099)
 - 17 adrenal suppression.tw. (175)
 - 18 exp Gastrointestinal Diseases/ (130213)
 - 19 gastrointestinal.tw. (31284)
 - 20 or/17-19 (148715)
 - 21 or/5-8 (86630)
 - 22 20 or 21 (231870)
 - 23 11 or 16 (15906)
 - 24 22 or 23 (246784)
 - 25 3 and 24 (779)
 - 26 4 and 24 (441)
 - 27 25 or 26 (890)
 - 28 exp ASTHMA/ (22884)
 - 29 asthma.tw. (24653)
 - 30 28 or 29 (28924)
 - 31 exp ASTHMA/dt [Drug Therapy] (6998)
 - 32 uncontrolled asthma.tw. (34)
 - 33 acute asthma.tw. (857)
 - 34 life threatening asthma.tw. (48)
 - 35 near fatal asthma.tw. (65)
 - 36 severe asthma.tw. (1176)
 - 37 exp Acute Disease/ (40537)
 - 38 exp ASTHMA/ (22884)
 - 39 37 and 38 (915)
 - 40 exp Status Asthmaticus/ (292)
 - 41 or/32-36 (1997)
 - 42 or/39-41 (2550)
 - 43 exp Critical Illness/ (3585)
 - 44 38 and 43 (8)
 - 45 42 or 44 (2553)
 - 46 exp IPRATROPIUM/ (354)
 - 47 ipratropium bromide.tw. (307)
 - 48 46 or 47 (454)
 - 49 30 and 48 (177)
 - 50 31 and 48 (128)

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51 49 or 50 (177)
 52 51 not 45 (94)
 53 exp ASTHMA/ (22884)
 54 asthma.tw. (24653)
 55 53 or 54 (28924)
 56 exp ASTHMA/dt [Drug Therapy] (6998)
 57 exp Anti-Asthmatic Agents/ (51448)
 58 exp Adrenergic beta-Agonists/ (16379)
 59 exp THEOPHYLLINE/ (3592)
 60 exp Cholinergic Antagonists/ (11832)
 61 exp Cromolyn Sodium/ (438)
 62 exp Leukotriene Antagonists/ (908)
 63 exp Immunosuppressive Agents/ (48728)
 64 or/57-63 (112263)
 65 steroid\$.tw. (37089)
 66 (beta2 agonist\$ or beta 2-agonist\$).tw. (1409)
 67 anticholinergic\$.tw. (1741)
 68 anti-cholinergic\$.tw. (69)
 69 exp Bronchodilator Agents/ (46155)
 70 inhaler\$.tw. (1798)
 71 bronchodilator\$.tw. (2058)
 72 exp "Nebulizers and Vaporizers"/ (2588)
 73 exp Administration, Inhalation/ (8004)
 74 exp Anti-Inflammatory Agents/ (73710)
 75 exp Dose-Response Relationship, Drug/ (82460)
 76 theophylline\$.tw. (2350)
 77 or/65-76 (222574)
 78 64 or 77 (271561)
 79 exp Histamine Agonists/ (424)
 80 histamine h2 agonists.tw. (3)
 81 exp Gastroesophageal Reflux/ (5365)
 82 exp Antifungal Agents/ (33114)
 83 anti-fungal drug\$.tw. (32)
 84 (antifungal drug\$ or anti fungal drug\$).tw. (757)
 85 exp ASPIRIN/ (6880)
 86 aspirin.tw. (7707)
 87 exp ASPERGILLOSIS, ALLERGIC BRONCHOPULMONARY/ (358)
 88 ((bronchopulmonary adj2 aspergillosis) and allergic).tw. (277)
 89 exp PREDNISOLONE/ (8260)
 90 prednisolone.tw. (4119)
 91 deflazacort.tw. (104)
 92 exp Triamcinolone Acetonide/ (538)
 93 kenalog.tw. (20)
 94 antihistamin\$3.tw. (1924)
 95 exp Histamine H1 Antagonists/ (4757)
 96 anti-histamin\$3.tw. (84)
 97 exp KETOTIFEN/ (184)
 98 ketotifen.tw. (243)
 99 or/79-98 (64552)
 100 78 or 99 (302436)
 101 55 and 100 (10885)
 102 56 and 100 (6026)
 103 101 or 102 (10885)
 104 exp ASTHMA/ (22884)
 105 asthma.tw. (24653)

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106 104 or 105 (28924)
 107 exp ASTHMA/dt [Drug Therapy] (6998)
 108 106 or 107 (28924)
 109 exp Adrenal Cortex Hormones/ (25196)
 110 corticosteroid\$.tw. (16087)
 111 exp STEROIDS/ (113125)
 112 steroid\$.tw. (37089)
 113 or/109-112 (143629)
 114 exp Body Height/ (5464)
 115 height.tw. (18685)
 116 growth.tw. (204030)
 117 exp GROWTH/ (64988)
 118 or/114-117 (268898)
 119 113 and 118 (19052)
 120 108 and 119 (322)
 121 exp ASTHMA/ (22884)
 122 asthma.tw. (24653)
 123 121 or 122 (28924)
 124 exp ASTHMA/dt [Drug Therapy] (6998)
 125 exp Receptors, Adrenergic, beta-2/ (1360)
 126 (beta2 agonists\$ or beta 2-agonist\$.tw. (1157)
 127 125 or 126 (2399)
 128 123 and 127 (948)
 129 124 and 127 (652)
 130 128 or 129 (948)
 131 exp Bronchodilator Agents/ (46155)
 132 bronchodilator\$.tw. (2058)
 133 131 or 132 (47004)
 134 130 and 133 (550)
 135 exp ASTHMA/ (22884)
 136 asthma.tw. (24653)
 137 135 or 136 (28924)
 138 exp PREDNISOLONE/ (8260)
 139 prednisolone.tw. (4119)
 140 138 or 139 (10149)
 141 deflazacort.tw. (104)
 142 140 and 141 (29)
 143 exp Triamcinolone Acetonide/ (538)
 144 kenalog.tw. (20)
 145 143 or 144 (543)
 146 140 and 145 (19)
 147 142 or 146 (48)
 148 137 and 147 (0)
 149 exp ASTHMA/ (22884)
 150 asthma.tw. (24653)
 151 149 or 150 (28924)
 152 alternate day\$.tw. (758)
 153 alternate daily.tw. (10)
 154 alternative day\$.tw. (14)
 155 alternative daily.tw. (17)
 156 or/152-155 (794)
 157 151 and 156 (14)
 158 exp ASTHMA/ (22884)
 159 asthma.tw. (24653)
 160 158 or 159 (28924)

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161 exp ASPERGILLOSIS, ALLERGIC BRONCHOPULMONARY/ (358)
 162 bronchopulmonary aspergillos?s.tw. (287)
 163 161 or 162 (427)
 164 160 and 163 (134)
 165 exp Antifungal Agents/ (33114)
 166 fungicide\$.tw. (922)
 167 anti fungal\$.tw. (248)
 168 or/165-167 (34050)
 169 exp Administration, Oral/ (24393)
 170 oral.tw. (82354)
 171 exp Administration, Inhalation/ (8004)
 172 inhalation.tw. (9368)
 173 inhaler\$.tw. (1798)
 174 exp "Nebulizers and Vaporizers"/ (2588)
 175 or/169-174 (105685)
 176 exp STEROIDS/ (113125)
 177 steroid\$.tw. (37089)
 178 or/176-177 (132845)
 179 175 and 178 (11152)
 180 168 or 179 (44785)
 181 164 and 180 (26)
 182 exp ASTHMA/ (22884)
 183 asthma.tw. (24653)
 184 182 or 183 (28924)
 185 exp ASPIRIN/ (6880)
 186 aspirin.tw. (7707)
 187 185 or 186 (10339)
 188 184 and 187 (422)
 189 exp ASTHMA/ (22884)
 190 asthma.tw. (24653)
 191 189 or 190 (28924)
 192 exp TERBUTALINE/ (489)
 193 terbutaline.tw. (557)
 194 bricanyl.tw. (11)
 195 or/192-194 (675)
 196 subcutaneous.tw. (19079)
 197 195 and 196 (37)
 198 exp Injections, Subcutaneous/ (6979)
 199 195 and 198 (14)
 200 197 or 199 (42)
 201 191 and 200 (10)
 202 exp ASTHMA/ (22884)
 203 asthma.tw. (24653)
 204 202 or 203 (28924)
 205 exp GASTROESOPHAGEAL REFLUX/ (5365)
 206 gastro esophageal reflux.tw. (164)
 207 gastroesophageal reflux.tw. (3479)
 208 or/205-207 (6181)
 209 204 and 208 (381)
 210 exp Histamine H2 Antagonists/ (3034)
 211 h2 antagonist\$.tw. (299)
 212 proton pump inhibitor\$.tw. (2093)
 213 or/210-212 (4887)
 214 209 and 213 (51)
 215 exp ASTHMA/ (22884)

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216 asthma.tw. (24653)
 217 215 or 216 (28924)
 218 exp ASTHMA/dt [Drug Therapy] (6998)
 219 seretide.tw. (14)
 220 salmeterol.tw. (627)
 221 fluticasone.tw. (892)
 222 220 and 221 (122)
 223 219 or 222 (123)
 224 symbicort.tw. (21)
 225 exp BUDESONIDE/ (1254)
 226 budesonide.tw. (1247)
 227 225 or 226 (1511)
 228 formoterol.tw. (345)
 229 227 and 228 (73)
 230 or/219,223-224,229 (184)
 231 217 and 230 (153)
 232 218 and 230 (137)
 233 231 and 232 (137)
 234 exp ASTHMA/ (22884)
 235 asthma.tw. (24653)
 236 234 or 235 (28924)
 237 exp ASTHMA/dt [Drug Therapy] (6998)
 238 fluticasone.tw. (892)
 239 exp BUDESONIDE/ (1254)
 240 budesonide.tw. (1247)
 241 239 or 240 (1511)
 242 exp BECLOMETHASONE/ (818)
 243 beclometasone dipropionate.tw. (24)
 244 beclomethasone.tw. (801)
 245 or/242-244 (1063)
 246 mometasone.tw. (160)
 247 hfa-bdp.tw. (49)
 248 238 and (or/241,245-247) (321)
 249 241 and (or/238,245-247) (379)
 250 245 and (or/238,241,246-247) (383)
 251 246 and (or/238,241,245,247) (69)
 252 247 and (or/238,241,245-246) (49)
 253 or/248-252 (526)
 254 Comparative Study/ (364379)
 255 compar\$.tw. (704343)
 256 254 or 255 (873404)
 257 253 and 256 (354)
 258 236 and 257 (258)
 259 237 and 257 (227)
 260 258 or 259 (258)
 261 exp ASTHMA/ (22884)
 262 asthma.tw. (24653)
 263 261 or 262 (28924)
 264 exp ASTHMA/dt [Drug Therapy] (6998)
 265 anti-ige monoclonal antibod\$.tw. (25)
 266 anti-ige antibod\$.tw. (148)
 267 rhumab E25.tw. (28)
 268 or/265-267 (180)
 269 263 and 268 (74)
 270 264 and 268 (20)

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271 269 or 270 (74)
 272 27 or 52 or 103 or 120 or 134 or 148 or 157 or 181 or 188 or 201 or 214 or 233 or 260 or 271 (11241)
 273 limit 272 to yr=2003-2004 (1422)

Database: EMBASE < 1996 to 2004 Week 12 >

Search Strategy:

1 exp ASTHMA/ (31261)
 2 asthma.tw. (25430)
 3 1 or 2 (34444)
 4 exp ASTHMA/dt [Drug Therapy] (11837)
 5 exp OSTEOPOROSIS/ (16249)
 6 exp HYPERTENSION/ (70525)
 7 osteoporos\$.tw. (11827)
 8 blood pressure.tw. (46569)
 9 or/5-8 (114764)
 10 exp Child Growth/ (2777)
 11 exp Child Development/ (4309)
 12 (growth adj2 child\$.tw. (2091)
 13 child growth.tw. (101)
 14 child development.tw. (464)
 15 or/10-14 (8275)
 16 9 or 15 (122752)
 17 exp Adrenal Suppression/ (376)
 18 adrenal suppression.tw. (182)
 19 exp Gastrointestinal Disease/ (6093)
 20 gastrointestinal.tw. (32093)
 21 or/17-20 (36025)
 22 16 or 21 (156924)
 23 22 and 3 (2014)
 24 22 and 4 (1046)
 25 23 or 24 (2014)
 26 exp ASTHMA/ (31261)
 27 asthma.tw. (25430)
 28 26 or 27 (34444)
 29 exp ASTHMA/dt [Drug Therapy] (11837)
 30 28 or 29 (34444)
 31 exp CORTICOSTEROID/ (117051)
 32 corticosteroid\$.tw. (18083)
 33 exp STEROID/ (133724)
 34 steroid\$.tw. (39267)
 35 or/31-34 (195149)
 36 exp Body Height/ (6174)
 37 height.tw. (18106)
 38 growth.tw. (198775)
 39 exp GROWTH/ (162948)
 40 or/36-39 (301330)
 41 35 and 40 (20526)
 42 30 and 41 (550)
 43 exp ASTHMA/ (31261)
 44 asthma.tw. (25430)
 45 43 or 44 (34444)
 46 exp ASTHMA/dt [Drug Therapy] (11837)
 47 exp Cholinergic Receptor Affecting Agent/ (39264)

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48 exp Anticholinergic Effect/ (1086)
 49 exp Beta Adrenergic Receptor Stimulating Agent/ (31506)
 50 exp THEOPHYLLINE/ (6450)
 51 exp Inhalational Drug Administration/ (7389)
 52 exp Leukotriene Receptor Blocking Agent/ (3426)
 53 exp Cromoglycate Disodium/ (2770)
 54 exp Adrenergic Receptor Stimulating Agent/ (69023)
 55 exp Antiasthmatic Agent/ (35433)
 56 exp INHALER/ (2595)
 57 exp Antiinflammatory Agent/ (181079)
 58 exp Immunosuppressive Agent/ (95343)
 59 exp Bronchodilating Agent/ (25231)
 60 exp Dose Response/ (85555)
 61 exp NEBULIZER/ (1474)
 62 exp CORTICOSTEROID/ (117051)
 63 or/47-62 (394077)
 64 steroid\$.tw. (39267)
 65 (beta2 agonist\$ or beta 2-agonist\$).tw. (1590)
 66 anticholinergic\$.tw. (2063)
 67 anti-cholinergic\$.tw. (78)
 68 inhaler\$.tw. (2093)
 69 theophylline\$.tw. (2765)
 70 bronchodilator\$.tw. (2279)
 71 or/64-70 (48030)
 72 exp Histamine Agonist/ (7907)
 73 histamine h2 agonist.tw. (7)
 74 exp Gastroesophageal Reflux/ (7016)
 75 exp Antifungal Agent/ (47708)
 76 anti-fungal drug\$.tw. (35)
 77 (antifungal drug\$ or anti fungal drug\$).tw. (840)
 78 exp Acetylsalicylic Acid/ (27307)
 79 aspirin.tw. (13532)
 80 exp Lung Aspergillosis/ (842)
 81 ((bronchopulmonary adj2 aspergillosis) and allergic).tw. (285)
 82 exp PREDNISOLONE/ (16549)
 83 prednisolone.tw. (4315)
 84 exp DEFLAZACORT/ (414)
 85 deflazacort.tw. (122)
 86 exp Triamcinolone Acetonide/ (1717)
 87 kenalog.tw. (139)
 88 antihistamin\$3.tw. (2431)
 89 exp Antihistaminic Agent/ (30969)
 90 anti-histamin\$3.tw. (141)
 91 exp Histamine H1 Receptor Antagonist/ (16664)
 92 exp KETOTIFEN/ (696)
 93 ketotifen.tw. (318)
 94 or/72-93 (128856)
 95 63 or 71 or 94 (467560)
 96 95 and 45 (17408)
 97 95 and 46 (11098)
 98 96 or 97 (17408)
 99 exp ASTHMA/ (31261)
 100 asthma.tw. (25430)
 101 99 or 100 (34444)
 102 exp ASTHMA/dt [Drug Therapy] (11837)

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103 uncontrolled asthma.tw. (42)
 104 acute asthma.tw. (894)
 105 life threatening asthma.tw. (48)
 106 near fatal asthma.tw. (64)
 107 severe asthma.tw. (1280)
 108 exp Acute Disease/ (6166)
 109 exp ASTHMA/ (31261)
 110 108 and 109 (233)
 111 exp Asthmatic State/ (241)
 112 or/103-107 (2129)
 113 or/110-112 (2432)
 114 exp Critical Illness/ (6536)
 115 109 and 114 (44)
 116 113 or 115 (2461)
 117 exp Ipratropium Bromide/ (1997)
 118 ipratropium bromide.tw. (318)
 119 117 or 118 (2028)
 120 101 and 119 (1034)
 121 102 and 119 (890)
 122 120 or 121 (1034)
 123 122 not 116 (759)
 124 exp ASTHMA/ (31261)
 125 asthma.tw. (25430)
 126 124 or 125 (34444)
 127 exp ASTHMA/dt [Drug Therapy] (11837)
 128 exp Beta 2 Adrenergic Receptor Stimulating Agent/ (3471)
 129 (beta2 agonist\$ or beta 2-agonist\$.tw. (1590)
 130 128 or 129 (4112)
 131 126 and 130 (2653)
 132 127 and 130 (2349)
 133 131 or 132 (2653)
 134 exp Bronchodilating Agent/ (25231)
 135 bronchodilator\$.tw. (2279)
 136 134 or 135 (25719)
 137 133 and 136 (1911)
 138 exp ASTHMA/ (31261)
 139 asthma.tw. (25430)
 140 138 or 139 (34444)
 141 exp Bronchopulmonary Aspergilloma/ (288)
 142 bronchopulmonary aspergillosis.tw. (292)
 143 141 or 142 (390)
 144 140 and 143 (147)
 145 exp Antifungal Agent/ (47708)
 146 fungicide\$.tw. (925)
 147 anti fungal\$.tw. (281)
 148 or/145-147 (47975)
 149 exp Oral Drug Administration/ (54061)
 150 oral.tw. (78649)
 151 inhalation.tw. (10046)
 152 inhaler\$.tw. (2093)
 153 exp NEBULIZER/ (1474)
 154 exp Inhalational Drug Administration/ (7389)
 155 or/149-154 (131551)
 156 exp STEROID/ (133724)
 157 steroid\$.tw. (39267)

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158 156 or 157 (148887)
 159 155 and 158 (16656)
 160 148 or 159 (63532)
 161 144 and 160 (51)
 162 exp ASTHMA/ (31261)
 163 asthma.tw. (25430)
 164 162 or 163 (34444)
 165 exp Acetylsalicylic Acid/ (27307)
 166 aspirin.tw. (13532)
 167 165 or 166 (28377)
 168 164 and 167 (893)
 169 exp ASTHMA/ (31261)
 170 asthma.tw. (25430)
 171 169 or 170 (34444)
 172 exp ASTHMA/dt [Drug Therapy] (11837)
 173 exp FLUTICASONE/ (1236)
 174 fluticasone.tw. (997)
 175 173 or 174 (2019)
 176 exp BECLOMETASONE/ (1561)
 177 beclomethasone.tw. (890)
 178 beclometasone dipropionate.tw. (13)
 179 exp Beclometasone Dipropionate/ (1935)
 180 or/176-179 (3395)
 181 exp Mometasone Furoate/ (686)
 182 mometasone.tw. (221)
 183 181 or 182 (690)
 184 exp BUDESONIDE/ (4105)
 185 budesonide.tw. (1470)
 186 or/184-185 (4171)
 187 hfa-bdp.tw. (51)
 188 175 and (or/180,183,186-187) (1177)
 189 180 and (or/175,183,186-187) (1757)
 190 183 and (or/175,180,183,187) (690)
 191 186 and (or/175,180,183,187) (1828)
 192 187 and (or/175,180,183,186) (51)
 193 or/188-192 (2499)
 194 exp Comparative Study/ (80872)
 195 compar\$.tw. (704505)
 196 194 or 195 (727049)
 197 193 and 196 (664)
 198 171 and 197 (471)
 199 172 and 197 (424)
 200 198 or 199 (471)
 201 exp ASTHMA/ (31261)
 202 asthma.tw. (25430)
 203 201 or 202 (34444)
 204 exp ASTHMA/dt [Drug Therapy] (11837)
 205 anti-ige monoclonal antibod\$.tw. (26)
 206 anti-ige antibod\$.tw. (178)
 207 rhumab E25.tw. (29)
 208 or/205-207 (211)
 209 203 and 208 (94)
 210 204 and 208 (74)
 211 209 or 210 (94)
 212 exp ASTHMA/ (31261)

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213 asthma.tw. (25430)
 214 212 or 213 (34444)
 215 exp PREDNISOLONE/ (16549)
 216 prednisolone.tw. (4315)
 217 215 or 216 (17307)
 218 deflazacort.tw. (122)
 219 exp DEFLAZACORT/ (414)
 220 218 or 219 (418)
 221 217 and 220 (99)
 222 exp Triamcinolone Acetonide/ (1717)
 223 kenalog.tw. (139)
 224 222 or 223 (1719)
 225 217 and 224 (205)
 226 221 or 225 (301)
 227 214 and 226 (43)
 228 exp ASTHMA/ (31261)
 229 asthma.tw. (25430)
 230 228 or 229 (34444)
 231 alternate day\$.tw. (806)
 232 alternate daily.tw. (8)
 233 alternative day\$.tw. (15)
 234 alternative daily.tw. (17)
 235 or/231-234 (840)
 236 230 and 235 (13)
 237 exp ASTHMA/ (31261)
 238 asthma.tw. (25430)
 239 237 or 238 (34444)
 240 exp GASTROESOPHAGEAL REFLUX/ (7016)
 241 gastro esophageal reflux.tw. (223)
 242 gastroesophageal reflux.tw. (3423)
 243 or/240-242 (7384)
 244 239 and 243 (576)
 245 exp Histamine H2 Receptor Antagonist/ (12552)
 246 h2 antagonist\$.tw. (392)
 247 proton pump inhibitor\$.tw. (2371)
 248 or/245-247 (14028)
 249 244 and 248 (153)
 250 exp ASTHMA/ (31261)
 251 asthma.tw. (25430)
 252 250 or 251 (34444)
 253 exp ASTHMA/dt [Drug Therapy] (11837)
 254 seretide.tw. (100)
 255 salmeterol.tw. (739)
 256 exp SALMETEROL/ (1737)
 257 255 or 256 (1880)
 258 exp FLUTICASONE/ (1236)
 259 fluticasone.tw. (997)
 260 258 or 259 (2019)
 261 257 and 260 (502)
 262 symbicort.tw. (77)
 263 exp BUDESONIDE/ (4105)
 264 budesonide.tw. (1470)
 265 263 or 264 (4171)
 266 exp FORMOTEROL/ (988)
 267 formoterol.tw. (439)

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268 266 or 267 (1052)
 269 265 and 268 (418)
 270 or/254,261-262,269 (825)
 271 252 and 270 (684)
 272 253 and 270 (637)
 273 271 or 272 (684)
 274 exp ASTHMA/ (31261)
 275 asthma.tw. (25430)
 276 274 or 275 (34444)
 277 exp TERBUTALINE/ (2015)
 278 terbutaline.tw. (617)
 279 bricanyl.tw. (265)
 280 or/277-279 (2120)
 281 subcutaneous.tw. (19522)
 282 280 and 281 (51)
 283 exp Subcutaneous Drug Administration/ (16617)
 284 280 and 283 (81)
 285 282 or 284 (122)
 286 276 and 285 (53)
 287 25 or 42 or 98 or 123 or 137 or 161 or 171 or 200 or 211 or 227 or 236 or 249 or 273 or 286
 (34444)
 288 limit 287 to yr=2003-2004 (5795)

Children

Database: Ovid MEDLINE(R) < 1996 to March Week 2 2004 >

Search Strategy:

1 exp ASTHMA/ (22884)
 2 asthma.tw. (24653)
 3 1 or 2 (28924)
 4 exp ASTHMA/dt [Drug Therapy] (6998)
 5 child\$.tw. (153285)
 6 infant\$.tw. (51941)
 7 paediatric\$.tw. (8122)
 8 pediatric\$.tw. (34230)
 9 or/5-8 (207240)
 10 exp Adrenergic beta-Agonists/ (16379)
 11 exp IPRATROPIUM/ (354)
 12 (beta2 agonist\$ or beta 2-agonist\$.tw. (1409)
 13 exp THEOPHYLLINE/ (3592)
 14 ipratropium bromide.tw. (307)
 15 exp Dose-Response Relationship, Drug/ (82460)
 16 exp Bronchodilator Agents/ (46155)
 17 bronchodilator\$.tw. (2058)
 18 theophylline\$.tw. (2350)
 19 or/10-18 (129941)
 20 9 and 19 and 3 (1202)
 21 19 and 3 (5618)
 22 limit 21 to (all infant <birth to 23 months> or preschool child <2 to 5 years> or child <6 to 12
 years>) (1571)
 23 20 or 22 (1677)
 24 9 and 19 and 4 (805)
 25 19 and 4 (3395)

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26 limit 25 to (all infant <birth to 23 months> or preschool child <2 to 5 years> or child <6 to 12 years>) (1097)
 27 26 or 24 (1166)
 28 27 or 23 (1677)
 29 exp ASTHMA/ (22884)
 30 asthma.tw. (24653)
 31 29 or 30 (28924)
 32 exp Administration, Inhalation/ (8004)
 33 inhalation.tw. (9368)
 34 inhaler\$.tw. (1798)
 35 exp "Nebulizers and Vaporizers"/ (2588)
 36 or/32-35 (16157)
 37 exp Adrenergic beta-Agonists/ (16379)
 38 (beta2 agonist\$ or beta agonist\$.tw. (1700)
 39 37 or 38 (17057)
 40 36 and 39 (1904)
 41 exp THEOPHYLLINE/ (3592)
 42 theophylline.tw. (2330)
 43 41 or 42 (4455)
 44 40 and 43 (117)
 45 31 and 44 (95)
 46 limit 45 to (all infant <birth to 23 months> or preschool child <2 to 5 years> or child <6 to 12 years>) (32)
 47 child\$.tw. (153285)
 48 infant\$.tw. (52120)
 49 paediat\$.tw. (8166)
 50 pediat\$.tw. (34810)
 51 or/47-50 (207693)
 52 45 and 51 (20)
 53 46 or 52 (33)
 54 28 or 53 (1677)
 55 limit 54 to yr=2003-2004 (203)

Database: EMBASE < 1996 to 2004 Week 12 >

Search Strategy:

1 exp ASTHMA/ (31261)
 2 asthma.tw. (25430)
 3 1 or 2 (34444)
 4 exp ASTHMA/dt [Drug Therapy] (11837)
 5 child\$.tw. (142752)
 6 infant\$.tw. (48811)
 7 paediatric\$.tw. (8628)
 8 pediatric\$.tw. (32655)
 9 or/5-8 (193682)
 10 exp Beta Adrenergic Receptor Stimulating Agent/ (31506)
 11 exp Ipratropium Bromide/ (1997)
 12 ipratropium bromide.tw. (318)
 13 exp THEOPHYLLINE/ (6450)
 14 exp Dose Response/ (85555)
 15 (beta2 agonist\$ or beta 2-agonist\$.tw. (1590)
 16 exp Bronchodilating Agent/ (25231)
 17 bronchodilator\$.tw. (2279)
 18 theophylline\$.tw. (2765)

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19 or/10-18 (126717)
 20 9 and 19 and 3 (1851)
 21 19 and 3 (9309)
 22 limit 21 to (infant <to one year> or child <unspecified age>) (1517)
 23 20 or 22 (2246)
 24 9 and 19 and 4 (1559)
 25 19 and 4 (7309)
 26 limit 25 to (infant <to one year> or child <unspecified age>) (1318)
 27 26 or 24 (1912)
 28 27 or 23 (2246)
 29 exp ASTHMA/ (31261)
 30 asthma.tw. (25430)
 31 29 or 30 (34444)
 32 exp Inhalational Drug Administration/ (7389)
 33 inhalation.tw. (10046)
 34 inhaler\$.tw. (2093)
 35 exp NEBULIZER/ (1474)
 36 or/32-35 (18056)
 37 exp Beta Adrenergic Receptor Stimulating Agent/ (31506)
 38 (beta2 agonist\$ or beta 2-agonist\$).tw. (1590)
 39 37 or 38 (31682)
 40 36 and 39 (3775)
 41 exp THEOPHYLLINE/ (6450)
 42 theophylline\$.tw. (2765)
 43 41 or 42 (6972)
 44 40 and 43 (703)
 45 44 and 31 (594)
 46 limit 45 to (infant <to one year> or preschool child <1 to 6 years> or school child <7 to 12 years>) (43)
 47 infant\$.tw. (48972)
 48 child\$.tw. (142752)
 49 pediat\$.tw. (32921)
 50 paediat\$.tw. (8660)
 51 or/47-50 (193985)
 52 45 and 51 (120)
 53 46 or 52 (136)
 54 28 or 53 (2254)
 55 limit 54 to yr=2003-2004 (392)

Sodium Cromoglycate in children

Database: Ovid MEDLINE(R) <1966 to March Week 3 2004 >

Search Strategy:

1 exp ASTHMA/ (64823)
 2 asthma.tw. (55926)
 3 1 or 2 (75574)
 4 exp Cromolyn Sodium/ (3662)
 5 sodium cromoglycate.tw. (932)
 6 sodium cromogliccate.tw. (10)
 7 cromoglycate disodium.tw. (5)
 8 cromogliccate disodium.tw. (0)
 9 dcsg.tw. (0)

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- 10 cromone\$.tw. (41)
 - 11 or/4-10 (3922)
 - 12 3 and 11 (2018)
- Set 12 combine with RCT filter

Database: EMBASE < 1980 to 2004 Week 13 >

Search Strategy:

-
- 1 exp ASTHMA/ (61476)
 - 2 asthma.tw. (47242)
 - 3 1 or 2 (67768)
 - 4 exp Cromoglycate Disodium/ (9246)
 - 5 cromolyn sodium.tw. (487)
 - 6 sodium cromoglicate.tw. (16)
 - 7 sodium cromoglycate.tw. (902)
 - 8 dcsг.tw. (1)
 - 9 cromone\$.tw. (62)
 - 10 or/4-9 (9374)
 - 11 3 and 10 (5094)
- Set 11 combined with RCT filter

Ciclesonide

Database: Ovid MEDLINE(R) < 1996 to September Week 1 2004 >

Search Strategy:

-
- 1 exp ASTHMA/ (24462)
 - 2 asthma.tw. (26442)
 - 3 1 or 2 (30978)
 - 4 ciclesonide\$.tw. (19)
 - 5 3 and 4 (12)
- Set 5 combined with RCT filter

Database: EMBASE < 1996 to 2004 Week 36 >

Search Strategy:

-
- 1 exp ASTHMA/ (33367)
 - 2 asthma.tw. (27019)
 - 3 1 or 2 (36729)
 - 4 ciclesonide\$.tw. (32)
 - 5 exp CICLESONIDE/ (77)
 - 6 4 or 5 (79)
 - 7 3 and 6 (68)
- Set 7 combined with RCT filter

Rhinitis

Database: Ovid MEDLINE(R) < 1996 to September Week 1 2004 >

Search Strategy:

-
- 1 exp ASTHMA/ (19546)
 - 2 asthma.tw. (20836)
 - 3 1 or 2 (24558)
 - 4 exp RHINITIS/ (3922)

File name : SIGN101_2004_Pharmacological_search_narrative	Version 0.1	16/01/2012
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5 exp SINUSITIS/ (2627)
6 4 or 5 (6083)
7 3 and 6 (1422)
Set 7 combined with RCT filter

Database: EMBASE <1996 to 2004 Week 36 >
Search Strategy:

1 exp ASTHMA/ (33367)
2 asthma.tw. (27019)
3 1 or 2 (36729)
4 exp RHINITIS/ (9467)
5 exp SINUSITIS/ (5379)
6 4 or 5 (13452)
7 3 and 6 (3830)
Set 7 combined with RCT filter

File name : SIGN101_2004_Pharmacological_search_narrative	Version 0.1	16/01/2012
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