

Supplementary file 1. Detailed search strategies

Ovid MEDLINE(R) 1946 to Present with Daily Update – executed 10.05.16

#	Search Statement	Results
1	exp Asthma/ or Bronchial Spasm/ or exp Bronchoconstriction/ or (asthma* or wheez* or bronchoconstrict* or bronchial constrict* or bronch* constrict* or bronchial spasm or bronchospas* or bronch* spasm*).tw.	150958
2	Bronchial Hyperreactivity/ or Respiratory Hypersensitivity/	15662
3	1 or 2	157160
4	(exacerb* or deteriorat* or aggravate* or acute* or status* or sever* or wors* or attack* or crisis or critical or hospital* or relapse or uncontrolled or poor* controlled).tw. or exp Recurrence/ or exp Disease Progression/ or exp Mortality/ or exp Death/	4817367
5	exp Emergency Service, Hospital/ or exp Emergency Medical Services/ or exp Hospitalization/ or exp Hospitals/ or exp Intensive Care Units/ or exp Emergencies/ or (emergenc* or acute care or intensive care or intensive treatment unit* or hospital*).tw.	1291812
6	(admission* or admit* or attend* or visit* or present* or utilis* or utiliz* or use* or using).tw.	8649008
7	5 and 6	708396
8	exp Primary Health Care/ or exp General Practice/ or exp Family Practice/ or exp Physicians/ or (physician* or doctor* or health care professional or general practice or asthma nurse or specialist nurse or GP).tw.	574496
9	exp "Appointments and Schedules"/ or appointment*.tw. or visit*.tw.	165155
10	(unscheduled or additional or increase*).tw.	3829910
11	8 and 9 and 10	9990
12	exp Medicine/ or exp Therapeutics/ or exp Anti-Asthmatic Agents/ or exp Bronchodilator Agents/ or exp Adrenergic beta-Agonists/ or exp Cholinergic Antagonists/ or exp Steroids/ or exp Glucocorticoids/ or (medicin* or treatment or medication or steroid* or corticosteroid* or glucocorticosteroid* or inhaler* or beta agonist* or beta-2-agonist* or SABA or anticholinergic* or ICS).tw.	7354258
13	(rescue or supplement* or (step* adj up) or adjuvant or additional or increase* or augment*).tw.	849246
14	12 and 13	379948
15	exp Steroids/ or exp Glucocorticoids/ or (steroid* or corticosteroid* or glucocorticosteroid*).tw.	923905
16	(systemic or oral or intravenous or intramuscular or injectable or parenteral or IV or IM).tw. or exp Injections, Intravenous/ or exp Administration, Intravenous/ or exp Injections, Intramuscular/ or exp Infusions, Parenteral/ or rescue.tw.	1384151
17	15 and 16	120669
18	((((nocturnal or night* or sleep*) adj2 (symptom* or wheeze* or asthma or wakening or woken or disturb*)) or ((daily or daytime) adj2 (activit* adj2 disturb*))).tw.	15029

19	exp Oxygen Inhalation Therapy/ or exp Intubation, Intratracheal/ or nebuli*.tw.	63956
20	((increas* or wors* or aggravate*) and (frequenc* or sever* or symptom* or wheez* or breathless* or dyspn?a)).tw.	870900
21	4 or 7 or 11 or 14 or 17 or 18 or 19 or 20	5466020
22	3 and 21	67554
23	Risk Factors/ or Risk/ or (risk adj3 factor*).tw. or predict*.tw. or (risk* adj2 exacerb*).tw.	1719001
24	23 and 22	12770
25	Animals/ not Humans/	4196538
26	24 not 25	12662
27	Adult/ not Child/	3672244
28	26 not 27	8379
29	(COPD.tw. or Pulmonary Disease, Chronic Obstructive/) not Asthma/	31916
30	28 not 29	8099
31	Comment/ or Letter/ or Editorial/ or Autobiography/ or Biography/ or Bibliography/ or Dictionary/ or Directory/ or Interactive Tutorial/ or Lectures/	1578832
32	30 not 31	7989

71 additional studies were detected in the 'latest update search' Total 8060

EMBASE search strategy

exp asthma/ or wheezing/ or bronchospasm/ or bronchoconstriction/ or bronchus hyperreactivity/ or (asthma* or wheez* or bronchospas* or (bronch* adj3 spasm*) or bronch* constrict* or bronchoconstrict*).tw. or ((bronchial* or respiratory or airway* or lung*) adj3 (hypersensitiv* or hyperreactiv*)).tw.

-----**AND**-----

((emergenc* or exacerb* or deteriorat* or aggravat* or acute* or sever* or wors* or attack* or crisis or critical or relaps* or uncontrolled or poor* controlled or hospital* or rehospital*) adj5 (asthma* or wheez* or bronchospas* or (bronch* adj3 spasm*) or bronch* constrict* or ((bronchial* or respiratory or airway* or lung*) adj3 (hypersensitiv* or hyperreactiv*)) or bronchoconstrict*).tw.

-----**OR**-----

exp asthma/ or wheezing/ or bronchospasm/ or bronchoconstriction/ or bronchus hyperreactivity/

and

disease exacerbation/ or deterioration/ or asthmatic state/ or relapse/ or mortality/ or death/ or hospitalization/ or hospital admission/ or hospital readmission/ or emergency treatment/ or acute disease/ or emergency/

-----**OR**-----

(emergency health service/ or emergency ward/ or emergency care/ or emergency treatment/ or emergency medicine/ or emergency nurse practitioner/ or emergency/ or intensive care/ or intensive care unit/ or hospital/ **and** (admission* or admit* or attend* or visit* or present* or utilis* or utiliz* or usage).tw.

-----**OR**-----

(acute care or acute treatment or (acute adj2 department*) or (acute adj2 unit*) or intensive care or intensive treatment or (intensive adj2 department*) or (intensive adj2 unit*) or hospital*).tw. adj5 (admission* or admit* or attend* or visit* or present* or utilis* or utiliz* or usage).tw.

-----**OR**-----

primary medical care/ or primary health care/ or general practice/ or physician/ or general practitioner/ or (physician* or doctor* or general practice* or primary care or general practitioner* or asthma nurse* or specialist nurse* or GP).tw.

and

(appointment* or visit* or attend*).tw.

and

(unscheduled or additional or urgent).tw.

-----**OR**-----

((treatment or medication or steroid* or corticosteroid* or glucocorticosteroid* or prednisolone or prednisone or beta-2-agonist* or beta agonist* or SABA or anticholinergic* or ICS) adj5 (rescue or (step* adj up) or additional or increase* or augment*).tw.

-----**OR**-----

drug/ or drug therapy/ or antiasthmatic agent/ or bronchodilating agent/ or beta 2 adrenergic receptor stimulating agent/ or exp cholinergic receptor blocking agent/ or steroid/ or corticosteroid/ or glucocorticoid/ or prednisolone/ or prednisone/

and

(rescue or (step* adj up) or additional or increase* or augment*).tw.

-----OR-----

steroid/ or corticosteroid/ or glucocorticoid/ or prednisolone/ or prednisone/ or (steroid* or corticosteroid* or glucocorticoid* or glucocorticosteroid* or prednisolone or prednisone).tw.

and

systemic therapy/ or oral drug administration/ or intravenous drug administration/ or intramuscular drug administration/ or injection/ or (systemic or oral or intravenous or intramuscular or parenteral or IV or IM or rescue).tw.

-----OR-----

((nocturnal or night*) adj2 (symptom* or wheez* or asthma* or wakening or woken or disturb*)) or ((daily or daytime) adj2 activit* adj2 disturb*) or (sleep* adj2 (wakening or woken or disturb*))).tw. or ((sleep/ or night sleep/) and (wakening or woken or disturb*).tw.) or (daily life activity/ and disturb*.tw.)

-----OR-----

oxygen therapy/ or exp respiratory tract intubation/ or nebulization/ or nebuli*.tw.

-----OR-----

((increas* or wors* or aggravat*) **adj3** (frequenc* or sever* or symptom* or wheez* or breathless* or dyspn?ea)).tw.

-----OR-----

increas*.tw. **and** (disease severity/ or health care utilization/)

-----AND-----

risk factors/ or risk/ or risk*.tw. or (predict* adj5 factor*).tw. or (predict* adj5 exacerb*).tw.

Final N =17712

Not - animal/ not human = 17705

Not - adult/ not child/ = 13933

Not - chronic obstructive lung disease/ = 13680

Not (book or book series or chapter or conference abstract or conference paper or conference proceeding or "conference review" or editorial or erratum or letter or note).pt. = 8755

Not (Case study/ or case report/) = 8517

Limit to Embase = 7400

AMED (Allied and Complementary Medicine) 1985 to April 2016 search strategy

exp Asthma/ or Respiratory hypersensitivity/ or (asthma* or wheez* or bronchospas* or (bronch* adj3 spasm*) or bronchoconstrict* or (bronch* adj3 constrict*)).tw. or ((bronchial* or respiratory or airway* or lung*) adj3 (hypersensitiv* or hyperreactiv*)).tw.

-----AND-----

Acute disease/ or Emergencies/ or Hospitalization/ or Patient Admission/ or Recurrence/ or Emergency Treatment/ or Mortality/ or Death/ or (emergenc* or exacerb* or deteriorat* or aggravat* or acute* or sever* or wors* or attack* or crisis or critical or relaps* or hospital* or rehospital* or uncontrolled or (poor* adj2 control*) or (asthma* adj1 status)).tw.

-----OR-----

Emergency Medical Services/ or Intensive Care/ or Critical Care/ or Hospitals/ or (acute care or acute treatment or intensive care or intensive treatment or (intensive adj2 unit*) or (intensive adj2 department*) or hospital*).tw.

and

Patient Admission/ or (admission* or admit* or attend* or visit* or present* or utilis* or utiliz* or usage).tw.

-----OR-----

Primary Health Care/ or Family Practice/ or Physicians/ or (physician* or doctor* or general practice* or general practitioner* or primary care or asthma nurse* or specialist nurse* or GP).tw.

and

(appointment* or visit* or attend*).tw.

and

(unscheduled or additional or urgent).tw.

-----OR-----

Drug therapy/ or Therapy/ or Antiasthmatic Agents/ or Bronchodilator Agents / or Steroids/ or Glucocorticoids/ or Prednisone/ or (treatment or medication or steroid* or corticosteroid* or glucocorticosteroid* or glucocorticoid* or prednisolone or prednisone or beta-2-agonist* or beta agonist* or SABA or anticholinergic* or cholinergic antagonist* or ICS).tw.

and

(rescue or (step* adj up) or additional or increase* or augment*).tw.

-----OR-----

Steroids/ or Glucocorticoids/ or Prednisone/ or (steroid* or corticosteroid* or glucocorticosteroid* or glucocorticoid* or prednisolone or prednisone).tw.

and

Injections/ or (systemic or oral or intravenous or intramuscular or parenteral or IV or IM or rescue).tw.

-----OR-----

((nocturnal or night*) adj3 (symptom* or wheez* or asthma or wakening or woken or disturb*)) or (sleep* adj2 (wakening or woken or disturb*)) or ((daily or daytime) adj3 activit*

adj3 disturb*).tw. or (Sleep/ and (wakening or woken or disturb*).tw.) or (Activities of Daily Living/ and disturb*.tw.)

-----OR-----

Oxygen Inhalation Therapy/ or Intubation / or nebuli*.tw.

-----OR-----

((increas* or wors* or aggravat*) and (frequenc* or sever* or symptom* or wheez* or breathless* or dyspnoea or dyspnea)).tw.

-----OR-----

increas*.tw. and (Health Services/ or Health Care/) and (utilis* or utiliz* or usage).tw.

-----AND-----

Risk Factors/ or Risk/ or risk*.tw. or predict*.tw.

N of hits: 105

Not Animals/ not Humans/ = 105

Not Adult/ not Child/ = 91

(pulmonary disease chronic obstructive/ or bronchitis/ or pulmonary emphysema/ or lung diseases obstructive/) not Asthma/ = 83

Not - (bibliography or bibliography or brief communication or clinical note or commentary or conference or congress or congress proceedings or editorial or equipment note or "equipment review" or interview or lecture or letter or meeting paper or meeting report or monograph or news or notes or proceedings or study guide or symposium or technical note or thesis or thesis summary).pt. = 83

CINAHL Plus search strategy

(MH "Asthma+") OR (MH "Bronchial Spasm") OR (MH "Bronchoconstriction") OR (MH "Respiratory Hypersensitivity") OR "asthma*" OR "wheez*" OR "bronchospas*" OR "bronch* N3 spasm*" OR "bronchoconstrict*" OR "bronch* N3 constrict*" OR ("bronchial*" or "respiratory" or "airway*" or "lung*") N3 ("hypersensitiv*" or "hyperreactiv*")

-----AND-----

(MH "Disease Exacerbation") OR (MH "Status Asthmaticus") OR (MH "Mortality") OR (MH "Death") OR (MH "Hospitalization") OR (MH "Child, Hospitalized") OR (MH "Infant, Hospitalized") OR "hospitali?ation" OR "hospitali?ed" OR "hospital admission*" OR "exacerbat*" OR "deteriorat*" OR "aggravat*" OR (MH "Acute Disease") OR "acute" OR "sever*" OR "wors*" OR "attack*" OR "crisis" OR (MH "Critical Illness") OR "critical" OR "uncontrolled" OR "poor* controlled" OR "relaps*" or "emergenc*"

-----OR-----

((MH "Emergency Medical Services") OR (MH "Emergency Service") OR (MH "Emergency Care") OR (MH "Emergency Nurse Practitioners") OR (MH "Emergency Treatment") OR (MH "Physicians, Emergency") OR (MH "Emergencies") OR (MH "Intensive Care Units") OR (MH "Critical Care") OR (MH "Intensive Care Units, Pediatric") OR (MH "Hospitals") OR (MH "Acute Care")) **and** ((MH "Patient Admission") OR "admission*" OR "admit*" OR "attend*" OR "visit*" OR "present*" OR "utilis*" OR "utiliz*" OR "usage")

-----OR-----

("hospital*" OR "acute care" or "acute treatment" or "acute N1 unit*" or "acute N1 department*" or "intensive treatment" or "intensive care" OR "intensive N1 unit*" OR "intensive N1 department*") **N4** ("admission*" OR "admit*" OR "attend*" OR "visit*" OR "present*" OR "utilis*" OR "utiliz*" OR "usage")

-----OR-----

(MH "Family Practice") OR "general practice*" OR (MH "Primary Health Care") OR (MH "Physicians, Family") OR "primary care" OR "physician*" OR "doctor*" OR "asthma nurse*" OR (MH "Clinical Nurse Specialists") OR "specialist nurse*" OR "GP" OR "general practitioner*"

and

(MH "Appointments and Schedules") OR "appointment*" OR "visit*" OR "attend*"

and

"unscheduled" OR "additional" OR "urgent"

-----OR-----

((MH "Therapeutics") OR (MH "Drug Therapy") OR (MH "Bronchodilator Agents") OR (MH "Adrenergic Beta-Agonists") OR (MH "Cholinergic Antagonists") OR (MH "Steroids") OR (MH "Glucocorticoids") OR (MH "Prednisolone") OR (MH "Prednisone")) **and** ("rescue" OR "step* N up" OR "additional" OR "increase*" OR "augment*")

-----OR-----

("treatment" OR "medication*" OR "bronchodilator*" OR "antiasthma*" OR "anti-asthma*" OR "cholinergic antagonist*" OR "steroid*" OR "corticosteroid*" OR "glucocorticosteroid*")

OR "beta agonist*" OR "beta-2-agonist*" OR "SABA" OR "anticholinergic*" OR "ICS" OR "prednisolone" OR "prednisone") **N4** ("rescue" OR "step* N up" OR "additional" OR "increase*" OR "augment*")

-----OR-----

(MH "Steroids") OR "steroid*" OR "corticosteroid*" OR (MH "Glucocorticoids") OR "glucocorticoid*" OR "glucocorticosteroid*" OR (MH "Prednisolone") OR (MH "Prednisone") or "prednisolone" or "prednisone"

and

"systemic" OR (MH "Injections, Intravenous") OR (MH "Administration, Intravenous") OR (MH "Intravenous Therapy") OR "intravenous" OR (MH "Administration, Oral") OR "oral" OR (MH "Injections, Intramuscular") OR "intramuscular" OR (MH "Injections") OR "injection*" OR "injectable" OR "parenteral" OR "IV" OR "IM" OR "rescue"

-----OR-----

((("nocturnal" or "night*") N2 ("symptom*" or "wheeze*" or "asthma" or "wakening" or "woken" or "disturb*")) OR (("daytime" or "daily") N3 "activit*" N3 "disturb*") OR (MH "Activities of Daily Living" and "disturb*") OR (MH "Sleep" and ("wakening" or "woken" or "disturb*")) OR (MH "Symptoms" and ("nocturnal" or "night*")) OR (sleep* N2 (wakening or woken or disturb*))

-----OR-----

(MH "Oxygen Therapy") OR "oxygen therapy" OR "respiratory * intubation" OR (MH "Intubation, Intratracheal") OR "nebuli*"

-----OR-----

("increas*" or "wors*" or "aggravat*") N4 ("frequenc*" or "sever*" or "symptom*" or "wheeze*" or "breathless*" or "dyspn?ea")

-----OR-----

"increas*" and ((MH "Health Services") OR "health services" OR "health care") and (utilis* or utiliz* or usage)

-----OR-----

"increas*" and ((MH "Disease Exacerbation") OR "disease severity")

-----AND-----

MH "Risk Factors" OR "risk*" OR "predict*"

N of hits n 3,735

Not - (MH "Animals") NOT (MH "Human") n 3,711

Not - (MH "Adult") NOT (MH "Child") n 2,921

Not - (MH "Pulmonary Disease, Chronic Obstructive") NOT (MH "Asthma") n 2,869

Not - PT Commentary OR PT Letter OR PT Editorial OR PT Bibliography OR PT Biography OR PT Book OR PT Book Chapter OR PT Book Review OR PT Proceedings OR PT Case Study OR PT Directories OR PT Doctoral Dissertation OR PT Masters Thesis OR PT Teaching Materials OR PT Practice Guidelines n = 2,661

PsycINFO 1987 to May Week 1 2016 (UoE, OVID)

exp ASTHMA/ OR (asthma* or wheez* or bronchospas* or (bronch* adj3 spasm*) or bronchoconstrict* or (bronch* adj3 constrict*).tw. or ((bronchial* or respiratory or airway* or lung*) adj3 (hypersensitiv* or hyperreactiv*).tw.

-----**AND**-----

(emergenc* or exacerb* or deteriorat* or aggravat* or acute* or sever* or (asthma* adj1 status) or wors* or attack* or crisis or critical or hospital* or rehospital* or relaps* or uncontrolled or poor* controlled or mortality or death).tw. or HOSPITALS/ or Hospital Admission/ or Hospitalization/ or Hospitalized Patients/ or "Death and Dying"/

-----**OR**-----

Emergency Services/ or Intensive Care/ or HOSPITALS/ or (acute care or acute treatment or (acute adj2 department*) or (acute adj2 unit*) or intensive care or intensive treatment or (intensive adj2 unit*) or (intensive adj2 department*) or hospital*).tw.

and

(admission* or admit* or attend* or visit* or present* or utilis* or utiliz* or usage).tw.

-----**OR**-----

Primary Health Care/ or General Practitioners/ or Family Physicians/ or Physicians/ or Family Medicine/ or (general practice* or general practitioner* or primary care or doctor* or physician* or asthma nurse* or specialist nurse* or GP).tw.

and

(appointment* OR visit* OR attend*).tw.

and

(unscheduled or additional or urgent).tw.

-----**OR**-----

Drug Therapy/ or Treatment/ or Steroids/ or Corticosteroids/ or Glucocorticoids/ or Prednisolone/ or (treatment or medication OR bronchodilat* or steroid* or corticosteroid* or glucocorticosteroid* or glucocorticoid* or prednisolone or prednisone or beta agonist* or beta-2-agonist* or anticholinergic* or cholinergic antagonist* or SABA or ICS or antiasthma* or anti-asthma*).tw

and

(rescue or (step* adj up) or additional or increase* or augment*).tw.

-----**OR**-----

Steroids/ or Corticosteroids/ or Glucocorticoids/ or Prednisolone/ or (steroid* or corticosteroid* or glucocorticosteroid* or glucocorticoid* or prednisolone or prednisone).tw.

and

Intravenous injections/ or Intravenous drug usage/ or Intramuscular injections/ or Injections/ or (systemic or intravenous or intramuscular or oral or injection* or injectable or parenteral or IV or IM or rescue).tw.

-----**OR**-----

((nocturnal or night*) adj3 (symptom* or wheez* or asthma or wakening or woken or disturb*)) or ((daily or daytime) adj3 activit* adj3 disturb*).tw. or (Sleep/ and (wakening or woken or disturb*).tw.) or ((nocturnal or night*).tw. and Symptoms/) or ("Activities of Daily Living"/ or Daily Activities/) and disturb*.tw.) or (sleep* adj2 (wakening or woken or disturb*).tw.).

-----OR-----

(oxygen therapy or intubation/ or nebuli*).tw.

-----OR-----

((increas* or wors* or aggravat*) adj5 (frequenc* or sever* or symptom* or wheez* or breathless* or dyspn?ea)).tw.

-----OR-----

(increas*.tw. and Health Care Utilization/) or (increas*.tw. and Health Care Services/ and (utilis* or utiliz* or usage).tw.)

-----AND-----

Risk Factors/ or risk*.tw. or predict*.tw.

N of hits n 1005

Not - Animals/ NOT human*.tw. n 1004

Not - (adult* not child*).tw. n 866

Not - Chronic Obstructive Pulmonary Disease/ not Asthma/ n 857

Not - (bibliography or chapter or "column/opinion" or "comment/reply" or dissertation or editorial or encyclopedia entry or "erratum/correction" or letter or obituary or poetry or publication information or reprint or review-book or review-media).dt. n 636

Not - (book or authored book or edited book or encyclopedia or dissertation abstract).pt. n 607

Cochrane CENTRAL (UoE, Cochrane Database)

ID	Search	Hits
#1	MeSH descriptor: [Asthma] explode all trees	9783
#2	asthma	25937
#3	wheez*	1792
#4	MeSH descriptor: [Bronchial Spasm] this term only	359
#5	MeSH descriptor: [Bronchoconstriction] this term only	543
#6	MeSH descriptor: [Bronchial Hyperreactivity] this term only	563
#7	MeSH descriptor: [Respiratory Hypersensitivity] this term only	212
#8	bronchoconstrict*	2326
#9	bronchospas*	1579
#10	bronch* near/3 spasm*	537
#11	bronch* near/3 constrict*	195
#12	(bronchial* or respiratory or airway* or lung*) near/3 (hypersensitiv* or hyperreactiv*)	1324
#13	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12	28042
#14	MeSH descriptor: [Disease Progression] this term only	5548
#15	MeSH descriptor: [Emergencies] this term only	696
#16	MeSH descriptor: [Patient Admission] this term only	626
#17	MeSH descriptor: [Hospitalization] this term only	5034
#18	MeSH descriptor: [Emergency Treatment] this term only	273
#19	MeSH descriptor: [Mortality] this term only	555
#20	MeSH descriptor: [Death] this term only	104
#21	MeSH descriptor: [Status Asthmaticus] this term only	48
#22	MeSH descriptor: [Recurrence] this term only	11060
#23	MeSH descriptor: [Acute Disease] this term only	9410
#24	MeSH descriptor: [Patient Readmission] this term only	930
#25	MeSH descriptor: [Symptom Flare Up] this term only	0
#26	(emergenc* or exacerb* or deteriorat* or aggravat* or acute* or sever* or wors* or attack* or crisis or critical or relaps* or hospital* or rehospital* or uncontrolled or poor* controlled):ti,ab,kw	288386
#27	#14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26	296698
#28	MeSH descriptor: [Emergency Medical Services] this term only	986
#29	MeSH descriptor: [Emergency Service, Hospital] this term only	1880
#30	MeSH descriptor: [Hospitals] this term only	402
#31	MeSH descriptor: [Intensive Care Units] this term only	1985
#32	MeSH descriptor: [Emergency Medicine] this term only	239
#33	MeSH descriptor: [Critical Care] this term only	1728
#34	MeSH descriptor: [Emergency Nursing] this term only	67
#35	MeSH descriptor: [Critical Care Nursing] this term only	16
#36	(acute care or acute treatment or acute department* or acute unit* or intensive care or intensive treatment or intensive department* or intensive unit* or hospital*):ti,ab,kw	127511
#37	#28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36	128361
#38	MeSH descriptor: [Patient Admission] this term only	626
#39	MeSH descriptor: [Patient Readmission] this term only	930

#40	(admission* or admit* or attend* or visit* or present* or utilis* or utiliz* or usage):ti,ab,kw	160148
#41	#38 or #39 or #40	160650
#42	#37 and #41	40616
#43	MeSH descriptor: [Primary Health Care] this term only	3665
#44	MeSH descriptor: [General Practice] this term only	302
#45	MeSH descriptor: [Family Practice] explode all trees	2170
#46	MeSH descriptor: [General Practitioners] this term only	144
#47	MeSH descriptor: [Physicians, Primary Care] this term only	102
#48	MeSH descriptor: [Physicians, Family] this term only	475
#49	(physician* or doctor* or general practice* or primary care or asthma nurse* or specialist nurse* or general practitioner* or GP):ti,ab,kw	55849
#50	#43 or #44 or #45 or #46 or #47 or #48 or #49	56061
#51	MeSH descriptor: [Appointments and Schedules] this term only	388
#52	(appointment* or visit* or attend*):ti,ab,kw	37327
#53	#51 or #52	37327
#54	(unscheduled or additional or urgent):ti,ab,kw	42212
#55	#50 and #53 and #54	1139
#56	MeSH descriptor: [Therapeutics] this term only	61
#57	MeSH descriptor: [Drug Therapy] this term only	444
#58	MeSH descriptor: [Anti-Asthmatic Agents] this term only	1601
#59	MeSH descriptor: [Bronchodilator Agents] this term only	3600
#60	MeSH descriptor: [Adrenergic beta-Agonists] this term only	1569
#61	MeSH descriptor: [Cholinergic Antagonists] this term only	332
#62	MeSH descriptor: [Steroids] this term only	707
#63	MeSH descriptor: [Glucocorticoids] this term only	3811
#64	MeSH descriptor: [Adrenergic beta-2 Receptor Agonists] this term only	257
#65	(treatment or medication or steroid* or corticosteroid* or glucocorticosteroid* or glucocorticoid* or beta agonist* or beta-2-agonist* or SABA or anticholinergic* or ICS):ti,ab,kw	441217
#66	#56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65	442442
#67	(rescue or (step* near/1 up) or additional or increase* or augment*):ti,ab,kw	247361
#68	#66 and #67	129966
#69	MeSH descriptor: [Steroids] this term only	707
#70	MeSH descriptor: [Glucocorticoids] this term only	3811
#71	MeSH descriptor: [Prednisolone] this term only	2016
#72	MeSH descriptor: [Prednisone] this term only	2971
#73	(steroid* or corticosteroid* or glucocorticosteroid* or prednisolone or prednisone):ti,ab,kw	36602
#74	#69 or #70 or #71 or #72 or #73	37838
#75	MeSH descriptor: [Administration, Oral] this term only	20662
#76	MeSH descriptor: [Injections, Intravenous] this term only	7482
#77	MeSH descriptor: [Injections, Intramuscular] this term only	3597
#78	MeSH descriptor: [Injections] this term only	2346
#79	MeSH descriptor: [Administration, Intravenous] this term only	309
#80	MeSH descriptor: [Infusions, Intravenous] this term only	9525
#81	MeSH descriptor: [Infusions, Parenteral] this term only	1433

#82	(systemic or oral or intravenous or intramuscular or injectable or parenteral or IV or IM or rescue):ti,ab,kw	186379
#83	#75 or #76 or #77 or #78 or #79 or #80 or #81 or #82	188117
#84	#74 and #83	13338
#85	((nocturnal or night* or sleep*) near/2 (symptom* or wheeze* or asthma or wakening or woken or disturb*)):ti,ab,kw or ((daily or daytime) near/2 activit* near/2 disturb*):ti,ab,kw	3083
#86	MeSH descriptor: [Sleep] this term only	3021
#87	(wakening or woken or disturb*):ti,ab,kw	8933
#88	#86 and #87	335
#89	MeSH descriptor: [Activities of Daily Living] this term only	4247
#90	disturb*:ti,ab,kw	8872
#91	#89 and #90	72
#92	MeSH descriptor: [Oxygen Inhalation Therapy] this term only	939
#93	MeSH descriptor: [Intubation] this term only	220
#94	MeSH descriptor: [Intubation, Intratracheal] this term only	3235
#95	nebuli*:ti,ab,kw or (respiratory * intubation):ti,ab,kw	5435
#96	((increas* or wors* or aggravat*) and (frequenc* or sever* or symptom* or wheez* or breathless* or dyspn?ea)):ti,ab,kw or (increas* and health care and (utiliz* or utilis*)):ti,ab,kw	69120
#97	#27 or #42 or #55 or #68 or #84 or #85 or #88 or #91 or #92 or #93 or #94 or #95 or #96	389973
#98	MeSH descriptor: [Risk Factors] this term only	22670
#99	MeSH descriptor: [Risk] this term only	3575
#100	(risk* or predict*):ti,ab,kw	160345
#101	#98 or #99 or #100	160345
#102	#13 and #97 and #101	3348
#103	MeSH descriptor: [Adult] explode all trees	1515
#104	MeSH descriptor: [Child] explode all trees	173
#105	MeSH descriptor: [Adolescent] explode all trees	85135
#106	#104 or #105	85229
#107	#103 not #106	1321
#108	#102 not #107	3347
#109	MeSH descriptor: [Animals] explode all trees	7440
#110	MeSH descriptor: [Humans] explode all trees	1221
#111	#109 not #110	6219
#112	#108 not #111	3297
#113	MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees	3093
#114	MeSH descriptor: [Asthma] explode all trees	9783
#115	#113 not #114	2945
#116	#112 not #115	3152