

ONLINE REPOSITORY

TABLE E1. Search strategy

PubMed		
No.	Query	Results
#1	("asthma"[MeSH Terms] OR asthma[tiab] OR asthmatic[tiab]) NOT (("Adolescent"[Mesh] OR "Child"[Mesh] OR "Infant"[Mesh]) NOT "Adult"[Mesh])	124,059
#2	"Patient Compliance"[Mesh] OR "Medication Adherence"[tiab] OR "Medication Compliance"[tiab] OR "Medication nonadherence"[tiab] OR "Medication non adherence"[tiab] OR "Medication Noncompliance"[tiab] OR "Medication non compliance"[tiab] OR "Medication Compliance"[tiab] OR "Medication Persistence"[tiab] OR "Health Knowledge, Attitudes, Practice"[Mesh]	149,914
#3	("Administration, Inhalation"[Mesh] OR "Nebulizers and Vaporizers"[Mesh] OR inhaler[tiab] OR inhalers[tiab] OR asthma treatment*[tiab] OR "asthma medication"[tiab] OR "asthma medications"[tiab] OR "controller medication"[tiab] OR "controller medications"[tiab] OR asthma control*[tiab] OR "asthma management"[tiab] OR antiasthmatic[tiab] OR antiasthmatics[tiab] OR "anti asthmatic"[tiab] OR "anti asthmatics"[tiab] OR "asthma drug"[tiab] OR "asthma drugs"[tiab] OR "controller drug"[tiab] OR "controller drugs"[tiab] OR "Anti-Asthmatic Agents"[Pharmacological Action] OR "Anti-Asthmatic Agents"[Mesh] OR "accolate"[tiab] OR "advair"[tiab] OR "aerobid"[tiab] OR "albuterol"[Mesh] OR "albuterol"[tiab] OR "aminophylline"[Mesh] OR "aminophylline"[tiab] OR "arformoterol"[tiab] OR "asmanex"[tiab] OR "azmacort"[tiab] OR "beclomethasone"[Mesh] OR "beclomethasone"[tiab] OR "benralizumab"[Supplementary Concept] OR "benralizumab"[tiab] OR "brethine"[tiab] OR "budesonide"[Mesh] OR "budesonide"[tiab] OR "budesonide, formoterol fumarate drug combination"[Mesh] OR "cromolyn sodium"[Mesh] OR "cromolyn"[tiab] OR "daliresp"[tiab] OR "deltasona"[tiab] OR "dexamethasone"[Mesh] OR "dexamethasone"[tiab] OR "dulera"[tiab] OR "dupilumab"[tiab] OR "elixophyllin"[tiab] OR "flovent"[tiab] OR "flunisolide"[Supplementary Concept] OR "flunisolide"[tiab] OR "fluticasone propionate, salmeterol xinafoate drug combination"[Mesh] OR "fluticasone"[Mesh] OR "fluticasone"[tiab] OR "foradil"[tiab] OR "formoterol fumarate"[Mesh] OR "formoterol"[tiab] OR "indacaterol"[Supplementary Concept] OR "indacaterol"[tiab] OR "intal"[tiab] OR "lebrizumab"[Supplementary Concept] OR "lebrizumab"[tiab] OR "levalbuterol"[Mesh] OR "levalbuterol"[tiab] OR "maxair"[tiab] OR "medrol"[tiab] OR "mepolizumab"[Supplementary Concept] OR "mepolizumab"[tiab] OR "methylprednisolone"[Mesh] OR "methylprednisolone"[tiab] OR "mometasone furoate"[Mesh] OR "mometasone furoate, formoterol fumarate drug combination"[Mesh] OR "mometasone"[tiab] OR "montelukast"[Supplementary Concept] OR "montelukast"[tiab] OR "nedocromil"[Mesh] OR "nedocromil"[tiab] OR "olodaterol"[Supplementary Concept] OR "olodaterol"[tiab] OR "omalizumab"[Mesh] OR "omalizumab"[tiab] OR "onbrez"[tiab] OR "pediapred"[tiab] OR "pirbuterol"[Supplementary Concept] OR "pirbuterol"[tiab] OR "prednisolone phosphate"[Supplementary Concept] OR "prednisolone"[Mesh] OR "prednisolone"[tiab] OR "prednisone"[Mesh] OR "prednisone"[tiab] OR "proair"[tiab] OR "procaterol"[Mesh] OR "procaterol"[tiab] OR "proventil"[tiab] OR "pulmicort"[tiab] OR "qvar"[tiab] OR "Roflumilast"[Supplementary Concept] OR "Roflumilast"[tiab] OR "salmeterol xinafoate"[Mesh] OR "salmeterol"[tiab] OR "SAR231893"[Supplementary Concept] OR "SAR231893"[tiab] OR "serevent"[tiab] OR "singulair"[tiab] OR "spiriva"[tiab] OR "symbicort"[tiab] OR "terbutaline"[Mesh] OR "terbutaline"[tiab] OR "theolair"[tiab] OR "theophylline"[Mesh] OR "theophylline"[tiab] OR "tilade"[tiab] OR "tiotropium bromide"[Mesh] OR "tiotropium"[tiab] OR "tralokinumab"[Supplementary Concept] OR "tralokinumab"[tiab] OR "triamcinolone acetonide"[Mesh] OR "triamcinolone"[Mesh] OR "triamcinolone"[tiab] OR "uniphyll"[tiab] OR "ventolin"[tiab] OR "vilanterol"[Supplementary Concept] OR "vilanterol"[tiab] OR "xolair"[tiab] OR "xopenex"[tiab] OR "zafirlukast"[Supplementary Concept] OR "zafirlukast"[tiab] OR "zileuton"[Supplementary Concept] OR "zileuton"[tiab] OR "zyflo"[tiab]) AND ("Patient Acceptance of Health Care"[Mesh] OR adhere*[tiab] OR nonadhere*[tiab] OR non adhere*[tiab] OR comply[tiab] OR complian*[tiab] OR noncomplian*[tiab] OR non complian*[tiab] OR satisfaction[tiab] OR participation[tiab] OR acceptance[tiab] OR preference*[tiab] OR attitude*[tiab] OR self-manage*[tiab] OR barrier [tiab] OR barriers[tiab] OR belief[tiab] OR beliefs[tiab] OR enable*[tiab] OR facilitate*[tiab] OR "Perception"[Mesh] OR perception[tiab] OR perceptions[tiab] OR perceive[tiab] OR perceived[tiab] OR misperception[tiab] OR misperceptions [tiab] OR misperceive[tiab] OR misperceived[tiab])	27,056
#4	#1 AND (#2 OR #3)	5,196
#5	"Focus Groups"[Mesh] OR "Qualitative research"[Mesh] OR "Observational Study"[Publication Type] OR "Observational Studies as Topic"[Mesh] OR "Interview"[Publication Type] OR "personal narratives as topic"[Mesh] OR "interviews as topic"[Mesh] OR "Narration"[Mesh] OR "Nursing Research"[Mesh] OR "Anecdotes as Topic"[Mesh] OR "Tape Recording"[Mesh] OR "semi-structured"[tiab] OR semistructured[tiab] OR unstructured[tiab] OR informal[tiab] OR "in-depth"[tiab] OR indepth[tiab] OR "face-to-face"[tiab] OR structured[tiab] OR interview*[tiab] OR discussion[tiab] OR discussions[tiab] OR "focus group"[tiab] OR "focus groups"[tiab] OR qualitative[tiab] OR ethnography[tiab] OR ethnographic[tiab] OR fieldwork[tiab] OR "field work"[tiab] OR "key informant"[tiab] OR questionnaire[tiab] OR questionnaires[tiab] OR survey[tiab] OR surveys[tiab] OR surveyed[tiab] OR open-ended question*[tiab] OR "thematic analysis"[tiab] OR workshop[tiab] OR workshops[tiab]	1,517,082

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TABLE E1. (Continued)

PubMed		
No.	Query	Results
#6	#4 AND #5	1,914
#7	#6 AND English[lang] NOT (animals[mh] NOT humans[mh]) NOT (Editorial[ptyp] OR Letter[ptyp] OR Case Reports[ptyp] OR Comment[ptyp])	1,757
EMBASE		
No.	Query	Results
#1	'asthma'/exp OR asthma:ti,ab OR asthmatic:ti,ab AND [adult]/lim	59,031
#2	'patient compliance'/exp OR 'medication adherence':ti,ab OR 'medication compliance':ti,ab OR 'medication nonadherence':ti,ab OR 'medication non adherence':ti,ab OR 'medication noncompliance':ti,ab OR 'medication non compliance':ti,ab OR 'medication compliance':ti,ab OR 'medication persistence':ti,ab OR 'adherence to therapy':ti,ab OR 'adherence to treatment':ti,ab OR 'compliance to therapy':ti,ab OR 'compliance to treatment':ti,ab OR 'patient adherence':ti,ab OR 'patients adherence':ti,ab OR 'therapy adherence':ti,ab OR 'therapy compliance':ti,ab OR 'treatment adherence':ti,ab OR 'treatment compliance':ti,ab OR 'attitude to health'/exp	222,254
#3	('inhaler'/exp OR inhaler:ti,ab OR inhalers:ti,ab OR 'asthma treatment':ti,ab OR 'asthma treatments':ti,ab OR 'asthma medication':ti,ab OR 'asthma medications':ti,ab OR 'controller medication':ti,ab OR 'controller medications':ti,ab OR 'asthma control*':ti,ab OR 'asthma management':ti,ab OR 'antiasthmatic':ti,ab OR 'antiasthmatics':ti,ab OR 'anti asthmatic':ti,ab OR 'anti asthmatics':ti,ab OR 'asthma drug':ti,ab OR 'asthma drugs':ti,ab OR 'controller drug':ti,ab OR 'controller drugs':ti,ab OR 'antiasthmatic agent'/exp OR 'accolate':ti,ab OR 'advair':ti,ab OR 'aerobid':ti,ab OR 'albuterol':ti,ab OR 'aminophylline':ti,ab OR 'arformoterol':ti,ab OR 'asmanex':ti,ab OR 'azmacort':ti,ab OR 'beclomethasone':ti,ab OR 'benralizumab':ti,ab OR 'brethine':ti,ab OR 'budesonide':ti,ab OR 'cromolyn':ti,ab OR 'daliresp':ti,ab OR 'deltasone':ti,ab OR 'dexamethasone':ti,ab OR 'dulera':ti,ab OR 'duplumab':ti,ab OR 'elixophyllin':ti,ab OR 'flovent':ti,ab OR 'flunisolide':ti,ab OR 'fluticasone':ti,ab OR 'foradil':ti,ab OR 'formoterol':ti,ab OR 'indacaterol':ti,ab OR 'intal':ti,ab OR 'lebrizumab':ti,ab OR 'levalbuterol':ti,ab OR 'maxair':ti,ab OR 'medrol':ti,ab OR 'mepolizumab':ti,ab OR 'methylprednisolone':ti,ab OR 'mometasone':ti,ab OR 'montelukast':ti,ab OR 'nedocromil':ti,ab OR 'olodaterol':ti,ab OR 'omalizumab':ti,ab OR 'onbrez':ti,ab OR 'pediapred':ti,ab OR 'pirbuterol':ti,ab OR 'prednisolone':ti,ab OR 'prednisone':ti,ab OR 'proair':ti,ab OR 'procatrol':ti,ab OR 'proventil':ti,ab OR 'pulmicort':ti,ab OR 'qvar':ti,ab OR 'Roflumilast':ti,ab OR 'salmeterol':ti,ab OR 'SAR231893':ti,ab OR 'serevent':ti,ab OR 'singulair':ti,ab OR 'spiriva':ti,ab OR 'symbicort':ti,ab OR 'terbutaline':ti,ab OR 'theolair':ti,ab OR 'theophylline':ti,ab OR 'tilade':ti,ab OR 'tiotropium':ti,ab OR 'tralokinumab':ti,ab OR 'triamcinolone':ti,ab OR 'uniphyll':ti,ab OR 'ventolin':ti,ab OR 'vilanterol':ti,ab OR 'xolair':ti,ab OR 'xopenex':ti,ab OR 'zafirlukast':ti,ab OR 'zileuton':ti,ab OR 'zyflo':ti,ab) AND ('patient attitude'/exp OR adhere*:ti,ab OR nonadhere*:ti,ab OR non adhere*:ti,ab OR comply:ti,ab OR complian*:ti,ab OR noncompliant*:ti,ab OR non compliant*:ti,ab OR satisfaction:ti,ab OR participation:ti,ab OR acceptance:ti,ab OR preference*:ti,ab OR attitude*:ti,ab OR 'self-manage*':ti,ab OR barrier:ti,ab OR barriers:ti,ab OR belief:ti,ab OR beliefs:ti,ab OR enable*:ti,ab OR facilitate*:ti,ab OR 'perception'/exp OR perception:ti,ab OR perceptions:ti,ab OR perceive:ti,ab OR perceived:ti,ab OR misperception:ti,ab OR misperceptions:ti,ab OR misperceive:ti,ab OR misperceived:ti,ab)	32,798
#4	#1 AND (#2 OR #3)	4,320
#5	'qualitative research'/exp OR 'observational study'/exp OR 'observational method'/exp OR 'questionnaire'/exp OR 'interview'/exp OR 'verbal communication'/exp OR 'thematic analysis'/exp OR 'recording'/exp OR 'semi-structured':ti,ab OR semistructured:ti,ab OR unstructured:ti,ab OR informal:ti,ab OR 'in-depth':ti,ab OR indepth:ti,ab OR 'face-to-face':ti,ab OR structured:ti,ab OR interview*:ti,ab OR discussion:ti,ab OR discussions:ti,ab OR 'focus group':ti,ab OR 'focus groups':ti,ab OR qualitative:ti,ab OR ethnography:ti,ab OR ethnographic:ti,ab OR fieldwork:ti,ab OR 'field work':ti,ab OR 'key informant':ti,ab OR questionnaire:ti,ab OR questionnaires:ti,ab OR survey:ti,ab OR surveys:ti,ab OR surveyed:ti,ab OR 'open-ended question*':ti,ab OR 'thematic analysis':ti,ab OR workshop:ti,ab OR workshops:ti,ab	2,432,939
#5	#3 AND #4	2,076

(continued)

TABLE E1. (Continued)

EMBASE		
No.	Query	Results
#6	#5 AND [english]/lim AND [humans]/lim	1,912
#7	#6 NOT ('case report'/exp OR 'a case report':ti OR ': case report':ti OR 'case study'/exp OR 'editorial'/exp OR 'letter'/exp OR 'note'/exp OR [editorial]/lim OR [letter]/lim OR [note]/lim)	1,871
Web of Science		
Set	Search	Results
#1	TS=(asthma OR asthmatic)	164,711
#2	TS=("patient compliance" OR "medication adherence" OR "medication compliance" OR "medication nonadherence" OR "medication non adherence" OR "medication noncompliance" OR "medication non compliance" OR "medication compliance" OR "medication persistence" OR "adherence to therapy" OR "adherence to treatment" OR "compliance to therapy" OR "compliance to treatment" OR "patient adherence" OR "patients adherence" OR "therapy adherence" OR "therapy compliance" OR "treatment adherence" OR "treatment compliance" OR "attitude to health")	31,306
#3	TS=(inhaler OR inhalers OR "asthma treatment" OR "asthma treatments" OR "asthma medication" OR "asthma medications" OR "asthma drug" OR "asthma drugs" OR "controller drug" OR "controller drugs" OR "controller medication" OR "controller medications" OR "asthma control" OR "asthma management" OR antiasthmatic OR antiasthmatics OR "anti asthmatic" OR "anti asthmatics" OR accolate OR advair OR aerobid OR albuterol OR aminophylline OR arformoterol OR asmanex OR azmacort OR beclomethasone OR benralizumab OR brethine OR budesonide OR cromolyn OR daliresp OR deltasone OR dexamethasone OR dulera OR dupilumab OR elixophyllin OR flovent OR flunisolide OR fluticasone OR foradil OR formoterol OR indacaterol OR intal OR lebrizumab OR levalbuterol OR maxair OR medrol OR mepolizumab OR methylprednisolone OR mometasone OR montelukast OR nedocromil OR olodaterol OR omalizumab OR onbrez OR pediapred OR pirbuterol OR prednisolone OR prednisone OR proair OR procaterol OR proventil OR pulmicort OR qvar OR Roflumilast OR salmeterol OR SAR231893 OR serevent OR singulair OR spiriva OR symbicort OR terbutaline OR theolair OR theophylline OR tilade OR tiotropium OR tralokinumab OR triamcinolone OR uniphyll OR ventolin OR vilanterol OR xolair OR xopenex OR zafirlukast OR zileuton OR zyflo) AND TS=("patient attitude" OR adherence OR nonadherence OR "non adherence" OR comply OR compliance OR noncompliance OR "non compliance" OR satisfaction OR participation OR acceptance OR preference OR preferences OR attitude OR attitudes OR "self-management" OR barrier OR barriers OR belief OR beliefs OR enable OR enables OR enabler OR enablers OR facilitate OR facilitates OR facilitators OR perception OR perceptions OR perceive OR perceived OR misperception OR misperceptions OR misperceive OR misperceived)	12,458
#4	#1 AND (#2 OR #3)	5,283
#5	TS=(qualitative OR "observational study" OR "observational method" OR "thematic analysis" OR "semi-structured" OR semistructured OR unstructured OR informal OR "in-depth" OR indepth OR "face-to-face" OR structured OR interview OR interviews OR discussion OR discussions OR "focus group" OR "focus groups" OR ethnography OR ethnographic OR fieldwork OR "field work" OR "key informant" OR questionnaire OR questionnaires OR survey OR surveys OR surveyed OR workshop OR workshops)	6,671,901
#5	(#3 AND #4) AND TS=(Adult OR Adults)	1,331
#6	#5 AND LANGUAGE: (English) DOCUMENT TYPES: (Article OR Meeting Abstract OR Review)	600
CINAHL		
No.	Query	Results
S1	(MH "Asthma+") OR TI (asthma OR asthmatic) OR AB (asthma OR asthmatic)	32,896
S2	(MH "Medication Compliance") OR TI ("medication adherence" OR "medication compliance" OR "medication nonadherence" OR "medication non adherence" OR "medication noncompliance" OR "medication non compliance" OR "medication compliance" OR "medication persistence" OR "adherence to therapy" OR "adherence to treatment" OR "compliance to therapy" OR "compliance to treatment" OR "patient adherence" OR "patients adherence" OR "therapy adherence" OR "therapy compliance" OR "treatment adherence" OR "treatment compliance") OR AB ("medication adherence" OR "medication compliance" OR "medication nonadherence" OR "medication non adherence" OR "medication noncompliance" OR "medication non compliance" OR "medication compliance" OR "medication persistence" OR "adherence to therapy" OR "adherence to treatment" OR "compliance to therapy" OR "compliance to treatment" OR "patient adherence" OR "patients adherence" OR "therapy adherence" OR "therapy compliance" OR "treatment adherence" OR "treatment compliance")	18,985

(continued)

TABLE E1. (Continued)

CINAHL		
No.	Query	Results
S3	(MH "Nebulizers and Vaporizers") OR TI (inhaler OR inhalers OR "asthma treatment" OR "asthma treatments" OR "asthma medication" OR "asthma medications" OR "asthma drug" OR "asthma drugs" OR "controller drug" OR "controller drugs" OR "controller medication" OR "controller medications" OR "asthma control" OR "asthma management" OR antiasthmatic OR antiasthmatics OR "anti asthmatic" OR "anti asthmatics" OR accolat OR advair OR aerobid OR albuterol OR aminophylline OR arformoterol OR asmanex OR azmacort OR beclomethasone OR benralizumab OR brethine OR budesonide OR cromolyn OR daliresp OR deltasone OR dexamethasone OR dulera OR dupilumab OR elixophyllin OR flovent OR flunisolide OR fluticasone OR foradil OR formoterol OR indacaterol OR intal OR lebrikizumab OR levalbuterol OR maxair OR medrol OR mepolizumab OR methylprednisolone OR mometasone OR montelukast OR nedocromil OR olodaterol OR omalizumab OR onbrez OR pediaped OR pirbuterol OR prednisolone OR prednisone OR proair OR procaterol OR proventil OR pulmicort OR qvar OR Roflumilast OR salmeterol OR SAR231893 OR serevent OR singularir OR spiriva OR symbicort OR terbutaline OR theolair OR theophylline OR tilade OR tiotropium OR tralokinumab OR triamcinolone OR uniphyll OR ventolin OR vilanterol OR xolair OR xopenex OR zafirlukast OR zileuton OR zyflo) OR AB (inhaler OR inhalers OR "asthma treatment" OR "asthma treatments" OR "asthma medication" OR "asthma medications" OR "asthma drug" OR "asthma drugs" OR "controller drug" OR "controller drugs" OR "controller medication" OR "controller medications" OR "asthma control" OR "asthma management" OR antiasthmatic OR antiasthmatics OR "anti asthmatic" OR "anti asthmatics" OR accolat OR advair OR aerobid OR albuterol OR aminophylline OR arformoterol OR asmanex OR azmacort OR beclomethasone OR benralizumab OR brethine OR budesonide OR cromolyn OR daliresp OR deltasone OR dexamethasone OR dulera OR dupilumab OR elixophyllin OR flovent OR flunisolide OR fluticasone OR foradil OR formoterol OR indacaterol OR intal OR lebrikizumab OR levalbuterol OR maxair OR medrol OR mepolizumab OR methylprednisolone OR mometasone OR montelukast OR nedocromil OR olodaterol OR omalizumab OR onbrez OR pediaped OR pirbuterol OR prednisolone OR prednisone OR proair OR procaterol OR proventil OR pulmicort OR qvar OR Roflumilast OR salmeterol OR SAR231893 OR serevent OR singularir OR spiriva OR symbicort OR terbutaline OR theolair OR theophylline OR tilade OR tiotropium OR tralokinumab OR triamcinolone OR uniphyll OR ventolin OR vilanterol OR xolair OR xopenex OR zafirlukast OR zileuton OR zyflo)	19,265
S4	(MH "Patient Attitudes") OR TI ("patient attitude" OR adherence OR nonadherence OR "non adherence" OR comply OR compliance OR noncompliance OR "non compliance" OR satisfaction OR participation OR acceptance OR preference OR preferences OR attitude OR attitudes OR "self-management" OR barrier OR barriers OR belief OR beliefs OR enable OR enables OR enabler OR enablers OR facilitate OR facilitates OR facilitators OR perception OR perceptions OR perceive OR perceived OR misperception OR misperceptions OR misperceive OR misperceived) OR AB ("patient attitude" OR adherence OR nonadherence OR "non adherence" OR comply OR compliance OR noncompliance OR "non compliance" OR satisfaction OR participation OR preference OR preferences OR attitude OR attitudes OR "self-management" OR barrier OR barriers OR belief OR beliefs OR enable OR enables OR enabler OR enablers OR facilitate OR facilitates OR facilitators OR perception OR perceptions OR perceive OR perceived OR misperception OR misperceptions OR misperceive OR misperceived)	403,689
S5	S3 AND S4	1,947
S6	S2 OR S5	20,570
S7	S1 AND S6	1,737
S8	(MH "Qualitative Studies+") OR (MH "Interviews+") OR (MH "Observational Methods+") OR (MH "Surveys") OR (MH "Focus Groups") OR (MH "Audiorecording") OR (MH "Questionnaires+") OR TI ("semi-structured" OR semistructured OR unstructured OR informal OR "in-depth" OR indepth OR "face-to-face" OR structured OR interview OR interviews OR discussion OR discussions OR "focus group" OR "focus groups" OR qualitative OR ethnography OR ethnographic OR fieldwork OR "field work" OR "key informant" OR questionnaire OR questionnaires OR survey OR surveys OR surveyed OR "open-ended question" OR "open-ended questions" OR "thematic analysis" OR workshop OR workshops) OR AB ("semi-structured" OR semistructured OR unstructured OR informal OR "in-depth" OR indepth OR "face-to-face" OR structured OR interview OR interviews OR discussion OR discussions OR "focus group" OR "focus groups" OR qualitative OR ethnography OR ethnographic OR fieldwork OR "field work" OR "key informant" OR questionnaire OR questionnaires OR survey OR surveys OR surveyed OR "open-ended question" OR "open-ended questions" OR "thematic analysis" OR workshop OR workshops)	714,799
S9	S7 AND S8 Limiters - English Language; Age Groups: All Adult	315