



S1. Appendix. Full Search Strategy.

ADHD

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Medline ALL	Ovid	1946 - Present	44	44
Embase	Embase.com	1971 - Present	115	81
Web of Science Core Collection*	Web of Knowledge	1975 - Present	95	39
Cochrane Central Register of Controlled Trials	Wiley	1992 - Present	3	1
Total			257	165

*Science Citation Index Expanded (1975-present) ; Social Sciences Citation Index (1975-present) ; Arts & Humanities Citation Index (1975-present) ; Conference Proceedings Citation Index- Science (1990-present) ; Conference Proceedings Citation Index- Social Science & Humanities (1990-present) ; Emerging Sources Citation Index (2005-present)

No other database limits were used than those specified in the search strategies

Medline

(exp *"Eczema"/ OR exp *"Dermatitis, Atopic"/ OR *"Pruritus"/ OR (eczema* OR ((atopic*) ADJ3 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*).ti.) AND ("Attention Deficit Disorder with Hyperactivity"/ OR (((attention*) ADJ3 (deficit*) ADJ3 (disorder*)) OR ((attenti* OR concentrat*) ADJ3 (defici*)) OR ADHD).ti.) AND (exp "Child"/ OR exp "Infant"/ OR "Adolescent"/ OR exp "Pediatrics"/ OR (adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*).ab,ti,kf.)

Embase

('eczema'/exp/mj OR 'atopic dermatitis'/exp/mj OR 'pruritus'/exp/mj OR (eczema* OR ((atopic*) NEAR/3 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*):ti) AND ('attention deficit hyperactivity disorder'/exp OR (((attention*) NEAR/3 (deficit*) NEAR/3 (disorder*)) OR ((attenti* OR concentrat*) NEAR/3 (defici*)) OR ADHD):ab,ti,kw) AND ('juvenile'/exp OR 'pediatrics'/exp OR (adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*):ab,ti,kw)

Web of Science

TI=(eczema* OR ((atopic*) NEAR/2 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*) AND TS=(((attention*) NEAR/2 (deficit*) NEAR/2 (disorder*)) OR ((attenti* OR concentrat*) NEAR/2 (defici*)) OR ADHD) AND TS=(adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*)

Cochrane CENTRAL

((eczema* OR ((atopic*) NEAR/3 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*):ti) AND (((attention*) NEAR/3 (deficit*) NEAR/3 (disorder*)) OR ((attenti* OR concentrat*)



NEAR/3 (defici*) OR ADHD):ab,ti,kw) **AND** ((adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*):ab,ti,kw)

ASD

Database searched	Platform	Years of coverage	Records	Records after duplicates removed
Medline ALL	Ovid	1946 - Present	26	26
Embase	Embase.com	1971 - Present	44	26
Web of Science Core Collection*	Web of Knowledge	1975 - Present	34	16
Cochrane Central Register of Controlled Trials	Wiley	1992 - Present	1	1
Total			105	69

*Science Citation Index Expanded (1975-present) ; Social Sciences Citation Index (1975-present) ; Arts & Humanities Citation Index (1975-present) ; Conference Proceedings Citation Index- Science (1990-present) ; Conference Proceedings Citation Index- Social Science & Humanities (1990-present) ; Emerging Sources Citation Index (2005-present)

No other database limits were used than those specified in the search strategies

Medline
(exp *"Eczema"/ OR exp *"Dermatitis, Atopic"/ OR *"Pruritus"/ OR (eczema* OR ((atopic*) ADJ3 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*).ti.) **AND** (exp "Autism Spectrum Disorder"/ OR (autis* OR ((development* OR neurocognitiv* OR neuro-cognitiv*) ADJ2 (disorder*)) OR Asperger*).ab,ti,kf.) **AND** (exp "Child"/ OR exp "Infant"/ OR "Adolescent"/ OR exp "Pediatrics"/ OR (adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*).ab,ti,kf.)

Embase
(('eczema'/exp/mj OR 'atopic dermatitis'/exp/mj OR 'pruritus'/exp/mj OR (eczema* OR ((atopic*) NEAR/3 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*):ti) **AND** ('autism'/exp OR (autis* OR ((development* OR neurocognitiv* OR neuro-cognitiv*) NEAR/2 (disorder*)) OR Asperger*):ab,ti,kw) **AND** ('juvenile'/exp OR 'pediatrics'/exp OR (adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*):ab,ti,kw)

Web of Science
TI=(eczema* OR ((atopic*) NEAR/2 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*) **AND** TS=(autis* OR ((development* OR neurocognitiv* OR neuro-cognitiv*) NEAR/2 (disorder*)) OR Asperger*) **AND** TS=(adolescent* OR teenager* OR child* OR toddler* OR boy OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR paediatric*)

Cochrane CENTRAL
((eczema* OR ((atopic*) NEAR/3 (dermatit* OR neurodermat*)) OR eczematous* OR prurit* OR itch*):ti) **AND** ((autis* OR ((development* OR neurocognitiv* OR neuro NEXT/1 cognitiv*) NEAR/2



77 (disorder*) OR Asperger*):ab,ti,kw) **AND** ((adolescent* OR teenager* OR child* OR toddler* OR boy
78 OR boys OR girl OR girls OR infant OR infants OR baby OR babies OR newborn* OR pediatric* OR
79 paediatric*):ab,ti,kw)
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