

# Appendix I: Health economic evidence – search strategies

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## Abbreviations

Embase	Excerpta Medica Database
HTA	Health Technology Assessment
MEDLINE	Medical Literature Analysis and Retrieval System Online
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
PreMEDLINE	in-process and other non-indexed citations from MEDLINE
EconLit	American Economic Association’s electronic bibliography
NHS EED	National Health Service Economic Evaluation Database

## I.1 Scoping searches

A broad preliminary search of the literature was undertaken in September 2013 to obtain an overview of the issues likely to be covered by the scope, and to help define key areas. Searches were limited to full and partial economic evaluations, and quality of life studies.

- NHS Economic Evaluation Database (NHS EED) [Cochrane Library]
- Excerpta Medica Database (Embase)
- HTA database (technology assessments)
- Medical Literature Analysis and Retrieval System Online (MEDLINE/MEDLINE In-Process)

Further information about this process can be found in the NICE guidelines manual.

### I.1.1 Systematic search

Each search was constructed using the groups of terms set out in Text Box 1. The selection of search terms was kept broad to maximise retrieval of evidence in a wide range of areas of interest to the Guideline Committee.

**Table I.1: Summary of systematic search strategies: search strategy construction**

Review question(s)	Search construction	Study design searched	Databases searched	Date range searched
All questions	<p>General medical databases:                      [(population terms) AND [(health economic and quality of life study terms)]</p> <p>Topic specific databases:                      [(population terms)]</p>	Full and partial economic evaluations	<p>General medical databases:                      Embase, MEDLINE, PreMEDLINE, PsycINFO</p> <p>Topic specific databases:                      NHS EED, HTA, EconLit</p>	1999 to February 2015

## I.2 Search strategies for the identification of health economic studies

### I.2.1 Population search terms

#### Embase, MEDLINE, PreMEDLINE, PsycINFO – OVID

1 emotional attachment/

2 1 use emez

3 reactive attachment disorder/

4 3 use mesz

5 attachment behavior/ or attachment disorders/ or attachment theory/

6 5 use psych

(affect regulation or (attach\* adj2 (abnormal\* or ambivalen\* or anxious\* or avoidant or behavior\* or behaviour\* or diffuse or disinh\* or disorder\* or disorgani\* or disorienta\* or disrupt\* or disturb\* or early or inhib\* or insecure\* or interven\* or organi\* or pattern\* or problem\* or reactive or relation\* or secure or security or style\*1 or theories or theory)) or

7 attuned care or (bonding adj (disorder\* or failure)) or co regulation or coregulation or (compulsive adj2 (compliance or selfrelian\* or self relian\*)) or developmental trauma or (disorgani\* adj2 (caregiv\* or care giv\* or relation\*)) or ((fail\* or reject\* or secur\*) adj2 attach\*) or (insecur\* adj2 (ambivalen\* or attach\* or avoidan\* or disorgani\*)) or (negative intrusive adj2 behav\*) or proximity seeking or psychologically attuned).ti,ab.

((attach\* adj5 (adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or early adult\* or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or new born\* or nursery or nurseries or pediatric\* or paediatr\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young adj2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\* or carer\*1 or caregiv\* or care giv\* or custodian\* or guardian\* or dad or dads or father\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\* or ((communicat\* or conversation\* or familiar or interact\* or language or speech) adj2 partner\*)) or (attach\* and (maternal or mother\* or pregnan\*)) or mother child dyad\*).ti,ab.

9 or/2,4,6-8

10 9 or attachment.ti,ab.

11 adoption/ or adopted child/ or adoptive parent/ or foster care/ or institutional care/ or institutionalization/ or orphanage/ or residential home/

12 11 use emez

13 adoption/ or child, institutionalized/ or foster home care/ or group homes/ or institutionalization/ or orphanages/ or residential facilities/

14 13 use mesz

adoptees/ or exp “adoption (child)”/ or adoptive parents/ or foster care/ or foster children/  
15 or foster parents/ or group homes/ or institutional schools/ or institutionalization/ or  
orphanages/ or residential care institutions/

16 15 use psych

17 (((adopt\* or foster\*) adj3 (carer\*1 or caregiv\* or care giv\* or custodian\* or dad or dads or  
famil\* or father\* or guardian\* or maternal\* or mother\* or mum or mums or parent\* or  
paternal\* or stepparent\*)) or ((adoptive or foster\*) adj (care or home\*)) or ((adopt\* or  
foster\* or group home\* or (place\* adj2 care) or institution\* or (local authority adj2 care)  
or looked after\* or out of home care or placement\* or residential) adj3 (adolescen\* or  
baby or babies or boy or boys or child\* or delinquen\* or early adult\* or girl\* or grader\* or  
born\* or nursery or nurseries or pediatric\* or paediatr\* or preadolescen\* or preschool\* or  
preteen\* or school\* or student\* or teen\* or toddler\* or (young adj2 (adult\* or people\* or  
patient\* or person\* or population\*)) or youngster\* or youth\*)) or (care order\* or care  
giving environment or (care adj2 (leaver or proceeding\*)) or childrens home or (child\*  
adj2 (accom\* or care home\* or establishment\* or home\* or institution\*)) or corporate  
parent\* or unplanned move or edge of\*1 care or (family adj2 friends care) or kinship care  
or state dependent\*).ti,ab.

18 or/12,14,16-17

19 exp adolescence/ or exp adolescent/ or adolescent development/ or exp child/ or child  
development/ or exp childhood/ or disabled student/ or elementary student/ or high  
school student/ or high school/ or kindergarten/ or middle school student/ or middle  
school/ or exp newborn/ or nursery school/ or primary school/ or exp puberty disorders/  
or school/ or student/

20 19 use emez

21 exp adolescent/ or adolescent development/ or exp child/ or exp child development/ or  
exp infant/ or minors/ or puberty/ or puberty, delayed/ or puberty, precocious/ or  
students/ or exp schools/

22 21 use mesz

23 adolescent development/ or boarding schools/ or charter schools/ or exp child  
development/ or classmates/ or elementary schools/ or exp elementary school students/  
or graduate schools/ or high school students/ or high schools/ or institutional schools/ or  
junior high school students/ or junior high schools/ or kindergarten students/ or  
kindergartens/ or middle schools/ or nongraded schools/ or nursery schools/ or exp  
preschool students/ or puberty/ or schools/ or special education students/ or students/ or  
vocational school students/

24 23 use psych

25 24 use psych or (infancy 2 23 mo or neonatal birth 1 mo or preschool age 2 5 yrs or  
adolescence 13 17 yrs or childhood birth 12 yrs or school age 6 12 yrs).ag.

26 (adolescen\* or child\* or infan\* or juvenile\* or play therap\* or teen\*).hw,id.

27 (adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or early adult\* or  
girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or

newborn\* or new born\* or nursery or nurseries or pediatric\* or paediatr\* or play therap\* or preadolescen\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young adj2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\*).ti,ab.

28 or/20,22,24-27

29 exp family therapy/ or parenting education/

30 29 use emez

31 exp family therapy/

32 31 use mesz

33 exp family therapy/ or parent training/ or parenting skills/

34 33 use psyh

35 caregiver/ or exp child parent relation/ or maternal behavior/ or exp parent/ or exp parental behavior/

36 35 use emez

37 caregivers/ or maternal behavior/ or exp parent-child relations/ or exp parenting/ or exp parents/ or paternal behavior/

38 37 use mesz

39 caregivers/ or foster parents/ or exp parent child communication/ or exp parent child relations/ or parental involvement/ or exp parenting/ or exp parents/

40 39 use psyh

41 (carer\*1 or caregiv\* or care giv\* or custodian\* or famil\* or guardian\* or dad or dads or father\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\* or ((communicat\* or conversation\* or familiar or interact\* or language or speech) adj2 partner\*) or (significant adj2 (adult\* or relation\*))).ti,ab.

42 (father\* or mother\* or parent\*).hw.

43 or/30,32,34,36,38,40-42

44 (fetal or foetal or fetus or foetus or infant\* or newborn\* or neonat\* or new born\*).ti,ab,hw.

45 (antinat\* or anti nat\* or antipart\* or anti part\* or perinat\* or peri nat\* or postnat\* or post nat\* or prenat\* or pre nat\* or pregnan\*).ti,ab,hw.

46 or/10,18 and (or/28,43-45)

### EconLit – ProQuest

1. (“affect regulation” or (attach\* near/2 (abnormal\* or ambivalen\* or anxious\* or avoidant or behavior\* or behaviour\* or diffuse or disinhib\* or disorder or disorgani\* or disorienta\* or disrupt\* or disturb\* or early or inhib\* or insecure\* or interven\* or organi\*

or pattern or problem or reactive or relation\* or secure or security or style or theories or theory)) or “attuned care” or (bonding near/1 (disorder\* or failure)) or “co regulation” or coregulation or (compulsive near/2 (compliance or selfrelian\* or “self relian\*\*”)) or “developmental trauma” or (disorgani\* near/2 (caregiv\* or “care giv\*\*” or relation\*)) or ((fail\* or reject\* or secur\*) near/2 attach\*) or (insecur\* near/2 (ambivalen\* or attach\* or avoidan\* or disorgani\*)) or (“negative intrusive” near/2 behav\*) or “proximity seeking” or “psychologically attuned”) or ((attach\* near/5 (adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or “early adult\*\*” or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or “new born\*\*” or nursery or nurseries or pediatric\* or paediatr\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young near/2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\* or carer or caregiv\* or “care giv\*\*” or custodian\* or guardian\* or dad or dads or father\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\* or ((communicat\* or conversation\* or familiar or interact\* or language or speech) near/2 partner\*)) or (attach\* and (maternal or mother\* or pregnan\*)) or “mother child dyad\*\*”) or attachment or (((adopt\* or foster\*) near/3 (carer or caregiv\* or “care giv\*\*” or custodian\* or dad or dads or famil\* or father\* or guardian\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\*)) or ((adoptive or foster\*) near/1 (care or home\*)) or ((adopt\* or foster\* or “group home\*\*” or (place\* near/2 care) or institution\* or (“local authority” near/2 care) or “looked after\*\*” or “out of home care” or placement\* or residential) near/3 (adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or “early adult\*\*” or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or “new born\*\*” or nursery or nurseries or pediatric\* or paediatr\* or preadolescen\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young near/2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\*)) or (“care order\*\*” or “care giving environment” or (care near/2 (leaver or proceeding\*)) or “childrens home” or (child\* near/2 (accom\* or “care home\*\*” or establishment\* or home\* or institution\*)) or “corporate parent\*\*” or “unplanned move” or “edge of care” or (family near/2 friends care) or “kinship care” or “state dependent\*\*”))) and ((adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or “early adult\*\*” or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or “new born\*\*” or nursery or nurseries or pediatric\* or paediatr\* or “play therap\*\*” or preadolescen\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young near/2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\*) or (carer or caregiv\* or “care giv\*\*” or custodian\* or famil\* or guardian\* or dad or dads or father\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\* or ((communicat\* or conversation\* or familiar or interact\* or language or speech) near/2 partner\*) or (significant near/2 (adult\* or relation\*)) or (fetal or foetal or fetus or foetus or infant\* or newborn\* or neonat\* or “new born\*\*”) or (antinat\* or “anti nat\*\*” or antipart\* or “anti part\*\*” or perinat\* or “peri nat\*\*” or postnat\* or “post nat\*\*” or prenatal\* or “pre nat\*\*” or pregnan\*))

## HTA, NHS EED - Wiley

1 mesh descriptor: [reactive attachment disorder] this term only

2 (“affect regulation” or (attach\* near/2 (abnormal\* or ambivalen\* or anxious\* or avoidant or behavior\* or behaviour\* or diffuse or disinhib\* or disorder or disorgani\* or disorienta\* or disrupt\* or disturb\* or early or inhib\* or insecure\* or interven\* or organi\* or pattern or problem or reactive or relation\* or secure or security or style or theories or theory)) or “attuned care” or (bonding near/1 (disorder\* or failure)) or “co regulation” or coregulation or (compulsive near/2 (compliance or selfrelian\* or “self relian\*\*”) or

“developmental trauma” or (disorgani\* near/2 (caregiv\* or “care giv\*” or relation\*)) or ((fail\* or reject\* or secur\*) near/2 attach\*) or (insecur\* near/2 (ambivalen\* or attach\* or avoidan\* or disorgani\*)) or (“negative intrusive” near/2 behav\*) or “proximity seeking” or “psychologically attuned”):ti,ab

3 ((attach\* near/5 (adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or “early adult\*” or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or “new born\*” or nursery or nurseries or pediatric\* or paediatr\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young near/2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\* or carer or caregiv\* or “care giv\*” or custodian\* or guardian\* or dad or dads or father\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\* or ((communicat\* or conversation\* or familiar or interact\* or language or speech) near/2 partner\*)) or (attach\* and (maternal or mother\* or pregnan\*)) or “mother child dyad”):ti,ab

4 attachment:ti,ab

5 #1 or #2 or #3 or #4

6 mesh descriptor: [adoption] this term only

7 mesh descriptor: [child care] this term only

8 mesh descriptor: [child custody] this term only

9 mesh descriptor: [child, institutionalized] this term only

10 mesh descriptor: [foster home care] this term only

11 mesh descriptor: [group homes] this term only

12 mesh descriptor: [infant care] this term only

13 mesh descriptor: [institutionalization] this term only

14 mesh descriptor: [orphanages] this term only

15 mesh descriptor: [residential facilities] this term only

16 (((adopt\* or foster\*) near/3 (carer or caregiv\* or “care giv\*” or custodian\* or dad or dads or famil\* or father\* or guardian\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\*)) or ((adoptive or foster\*) near/1 (care or home\*)) or ((adopt\* or foster\* or “group home\*” or (place\* near/2 care) or institution\* or (“local authority” near/2 care) or “looked after\*” or “out of home care” or placement\* or residential) near/3 (adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or “early adult\*” or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or “new born\*” or nursery or nurseries or pediatric\* or paediatr\* or preadolescen\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young near/2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\*)) or (“care order\*” or “care giving environment” or (care near/2 (leaver or proceeding\*)) or “childrens home” or (child\* near/2 (accom\* or “care home\*” or establishment\* or home\* or institution\*)) or “corporate parent\*” or “unplanned move” or “edge of care” or (family near/2 friends care) or “kinship care” or “state dependent”):ti,ab



- 17 #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16
- 18 mesh descriptor: [child] explode all trees
- 19 mesh descriptor: [infant] 1 tree(s) exploded 1
- 20 mesh descriptor: [adolescent development] this term only
- 21 mesh descriptor: [child development] explode all trees
- 22 mesh descriptor: [minors] this term only
- 23 mesh descriptor: [puberty, delayed] this term only
- 24 mesh descriptor: [puberty, precocious] this term only
- 25 mesh descriptor: [students] this term only
- 26 mesh descriptor: [adolescent] this term only
- 27 mesh descriptor: [schools] 2 tree(s) exploded
- 28 (adolescen\* or child\* or infan\* or juvenile\* or “play therap\*” or teen\*):kw  
  
(adolescen\* or baby or babies or boy or boys or child\* or delinquen\* or “early adult\*” or girl\* or grader\* or infant\* or junior or juvenile\* or kindergarten\* or minors or neonat\* or newborn\* or “new born\*” or nursery or nurseries or pediatric\* or paediatr\* or “play therap\*” or preadolescen\* or preschool\* or preteen\* or school\* or student\* or teen\* or toddler\* or (young near/2 (adult\* or people\* or patient\* or person\* or population\*)) or youngster\* or youth\*):ti,ab
- 29
- 30 #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29
- 31 mesh descriptor: [family therapy] this term only
- 32 mesh descriptor: [caregivers] this term only
- 33 mesh descriptor: [maternal behavior] 1 tree(s) exploded
- 34 mesh descriptor: [parent-child relations] explode all trees
- 35 mesh descriptor: [parenting] this term only
- 36 mesh descriptor: [parents] 3 tree(s) exploded
- 37 mesh descriptor: [paternal behavior] this term only  
  
(carer or caregiv\* or “care giv\*” or custodian\* or famil\* or guardian\* or dad or dads or father\* or maternal\* or mother\* or mum or mums or parent\* or paternal\* or stepparent\* or ((communicat\* or conversation\* or familiar or interact\* or language or speech) near/2 partner\*) or (significant near/2 (adult\* or relation\*))) :ti,ab
- 38
- 39 (father\* or mother\* or parent\*):kw
- 40 #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39

- 41 (fetal or foetal or fetus or foetus or infant\* or newborn\* or neonat\* or “new born\*”):ti,ab,hw.
- 42 (antinat\* or “anti nat\*” or antipart\* or “anti part\*” or perinat\* or “peri nat\*” or postnat\* or “post nat\*” or prenat\* or “pre nat\*” or pregnan\*):ti,ab,hw.
- 43 (#5 or #17) and (#30 or #40 or #41 or #42)

## I.3 Study design filters

### I.3.1 Health economic and quality of life study design filter

#### Embase, MEDLINE, PreMEDLINE, PsycINFO – OVID

- 1 budget/ or exp economic evaluation/ or exp fee/ or funding/ or exp health care cost/ or health economics/ or exp pharmacoeconomics/ or resource allocation/
- 2 1 use emez
- 3 exp budgets/ or exp “costs and cost analysis”/ or economics/ or exp economics, hospital/ or exp economics, medical/ or economics, nursing/ or economics, pharmaceutical/ or exp “fees and charges”/ or exp resource allocation/ or value of life/
- 4 3 use mesz, prem
- 5 exp "costs and cost analysis"/ or "cost containment"/ or economics/ or finance/ or funding/ or health care economics/ or pharmacoeconomics/ or exp professional fees/ or resource allocation/
- 6 5 use psych
- 7 (cost\$ or economic\$ or pharmacoeconomic\$ or pharmaco economic\$).ti. or (cost\$ adj2 (effective\$ or utilit\$ or benefit\$ or minimi\$)).ab. or economic model\$.tw. or (budget\$ or fee or fees or financ\$ or price or prices or pricing or resource\$ allocat\$ or (value adj2 (monetary or money))).ti,ab.
- 8 decision theory/ or decision tree/ or monte carlo method/ or \*nonbiological model/ or (statistical model/ and exp economic aspect/) or stochastic model/ or \*theoretical model/
- 9 8 use emez
- 10 exp decision theory/ or markov chains/ or exp models, economic/ or \*models, organizational/ or \*models, theoretical/ or monte carlo method/
- 11 10 use mesz, prem
- 12 exp decision theory/ or exp stochastic modeling/
- 13 12 use psych
- 14 ((decision adj (analy\$ or model\$ or tree\$)) or economic model\$ or markov or monte carlo).ti,ab.
- 15 quality adjusted life year/ or "quality of life index"/ or short form 12/ or short form 20/ or short form 36/ or short form 8/ or sickness impact profile/

- 16 15 use emez
- 17 quality-adjusted life years/ or sickness impact profile/
- 18 17 use mesz, prem
- 19 "\*\*quality of life"/
- 20 19 use psych
- 21 (((disability or quality) adj adjusted) or (adjusted adj2 life)).ti,ab.
- 22 (disutili\$ or (utilit\$ adj1 (health or score\$ or value\$ or weigh\$))).ti,ab.
- 23 (health year equivalent or hye or hyes).ti,ab.
- 24 (daly or qal or qald or qale or qaly or qtime\$ or qwb\$).ti,ab.
- 25 discrete choice.ti,ab.
- 26 (euroqol\$ or euro qol\$ or eq5d\$ or eq 5d\$).ti,ab.
- 27 (hui or hui1 or hui2 or hui3).ti,ab.
- 28 ((quality adj2 (wellbeing or well being)) or quality adjusted life or qwb or (value adj2 (money or monetary))).ti,ab.
- 29 (qol or hqi\$ or hqi\$or h qol\$ or hrqol or hr qol or hr ql or hrql).ti,ab.
- 30 rosser.ti,ab.
- 31 sickness impact profile.ti,ab.
- 32 (standard gamble or time trade\$ or tto or willingness to pay or wtp).ti,ab.
- 33 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).ti,ab.
- 34 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).ti,ab.
- 35 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).ti,ab.
- 36 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).ti,ab
- 37 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).ti,ab.
- 38 or/ 2,4,6-7,9,11,13-14,16,18,20-37