National Institute for Health and Care Excellence

Neonatal infection: antibiotics for prevention and treatment

[A] Evidence review for information and support for parents and carers of babies with late-onset neonatal infection

NICE guideline NG195

Evidence reviews underpinning recommendations 1.1.1-1.1.13 in the NICE guideline

April 2021

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Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

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Contents

Information and support for parents and carers of babies with late-onset infection

1.1 Review question

What are the perceived information and support needs for parents and carers with babies with suspected or confirmed late-onset neonatal infection?

1.1.1 Introduction

Neonatal infection is a significant cause of mortality and morbidity in newborn babies. It can lead to life-threatening sepsis, which accounts for 10% of all neonatal deaths. Late-onset neonatal infection occurs more than 72 hours after birth, is present in 7 of every 1000 newborn babies and is responsible for 61 of every 1000 neonatal admissions. Coagulase-negative staphylococci, Enterobacteriaceae and Staphylococcus aureus are the most common organisms identified.

It is important that parents and carers are aware if their baby is at risk of developing late-onset infection and understand what to expect if their baby has been admitted to hospital with an infection. Making sure that parents and carers are aware of issues such as risk factors and consequences of infection can help to improve outcomes for the baby, as well as reducing stress and uncertainty for the baby's family. The aim of this review is therefore to identify what information and support should be provided to a baby's family, including which methods of presenting the information are the most preferred.

1.1.2 Summary of the protocol

Table 1 SPIDER table

Type of review	Qualitative evidence synthesis
Sample	Inclusions: • Expectant parents, and parents and carers of babies aged under 28 days (corrected age) who may or may not be at risk of late-onset neonatal infection • Parents and carers of babies with suspected or confirmed late-onset neonatal infection • Health-care professionals with experiences of caring for babies with suspected or confirmed late-onset neonatal infection Exclusions: • Parents and carers of babies with suspected or confirmed non-bacterial infections • Parents and carers of babies with suspected or confirmed syphilis. • Parents and carers of babies with localised infections. • Parents and carers of babies with suspected or confirmed bacterial infection resulting from therapeutic interventions such as surgery
Phenomenon of Interest	Information and support for parents and carers of babies who may develop late-onset neonatal infection
Design	• Studies using qualitative methods: • Including, semi-structured and structured interviews, focus groups, observations • Qualitative data from mixed methods studies will be included. • Data from surveys will not be included • Qualitative evidence syntheses of above study types

Evaluation	• Themes will be identified from the literature and not pre-specified.
	• Relevant themes may include:
	  • Preferred format and content of information provision
	  • Decision making
	  • Information sources other than healthcare professionals (e.g. support groups, online resources)
	  • Parent/carer involvement in decision-making
	  • Parental/carer anxiety
	  • Impact on the baby's family
	  • Delivery of support (e.g. nurse, peer groups)
	  • Setting (e.g. community, hospital)
	  • Timing of information provision
	  • Support following discharge of the baby from hospital

Research type	Qualitative and mixed methods
Exclusion criteria	• Non-English language studies • Evidence from non-OECD countries

1.1.3 Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual. Studies were uploaded to Nvivo version 11 software and coded into themes based on the data presented in the primary studies. For further details of the methods used see the methods document.

Declarations of interest were recorded according to NICE's 2018 conflicts of interest policy.

1.1.4 Qualitative evidence

1.1.4.1 Included studies

The search returned a total of 3217 results. Of these, 27 were identified as potential includes, and full text articles were ordered and reviewed against the inclusion criteria. One study, using semi-structured interviews, met the inclusion criteria for this review.

The search was re-run in July 2020 to identify any studies which had been published since the date of the original search. This returned a total of 188 results of which 0 were identified as possible included studies. In total there was therefore 1 study, using semi-structured interviews, which met the inclusion criteria for this review.

See Appendix D for evidence tables of included studies.

1.1.4.2 Excluded studies

See Appendix I for excluded studies and reasons for exclusion.

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1.1.5 Summary of studies included in the qualitative evidence

Table 2 Summary of included clinical studies

Study	Study type and time	Population	Type of analysis	Setting	Expectant parents / parents / healthcare professionals
De 2014 (n=36) Australia	• Semi-structured interviews • Questionnaires given towards end of baby's hospital admission	• Parents of febrile infants aged <3 months admitted to hospital • Parents of infants who were previously healthy *Infants with uncomplicated febrile illness - with an unremarkable clinical course and uneventful recovery*	Semi-structured interviews	• Tertiary children's hospital	• Parents and carers

See appendix D for full evidence tables.

1.1.6 Summary of the qualitative evidence

Themes	Studies	CERQual concerns: Methodological limitations (ML), Coherence (C), Adequacy (A), Relevance (R)	CERQual explanation
Parent or carer anxiety Some parents were concerned about missing the signs of serious illness in their baby. Others were concerned about not knowing what was going to happen to their baby while at the hospital. Reassurance that they had done the right thing by taking the baby to the hospital helped to reduce anxiety. Anxiety for some was made worse by their perception of the urgency of treatment when they arrived at the hospital and the number and invasiveness of some of the tests. Anxiety over tests was highlighted by some parents, particularly in relation to lumbar punctures.	**1** De 2014	ML: Serious C: Not serious A: Serious R: Very serious **Overall:** **Very low**	Results were from a single study which was only partially relevant to the review question. Study provided limited information about analysis and excluded parents of preterm babies.
Explanation of procedures Some parents highlighted the importance of a clear explanation of any medical procedures. They highlighted	**1** De 2014	ML: Serious C: Not serious A: Serious	Results were from a single study which was only partially relevant to the review question. Study provided limited information about

how being in a stressful situation made it hard to process all of the information, particularly where complex medical terms were being used. Clear explanations of procedures helped them to understand what was going to happen to the baby and why the tests were important.		R: Very serious **Overall:** **Very low**	analysis and excluded parents of preterm babies.
Parental or carer involvement in decision making Having clear explanations of the management plan, what will happen and when helped parents to trust the team. Being able to ask questions made them feel valued and increased their understanding of what was happening. However, some felt that in a stressful situation it was difficult to know what to ask. Others were either unaware that they had the right to say no to treatment or, although they had been made aware of this, they didn't feel that was really the case because they didn't want their child to get sicker. Some parents were worried that their questions could make them appear paranoid or potentially delay treatment. They were relieved when they were reassured that their concerns were justified.	**1** De 2014	ML: Serious C: Not serious A: Serious R: Very serious **Overall:** **Very low**	Results were from a single study which was only partially relevant to the review question. Study provided limited information about analysis and excluded parents of preterm babies.
Format of information	**1** De 2014	ML: Serious C: Not serious A: Serious	Results were from a single study which was only partially relevant to the review question. Study provided limited information about

It was suggested that parents may prefer fact sheets as source of information as these are easy to understand and can be processed over time.		R: Very serious **Overall:** **Very low**	analysis and excluded parents of preterm babies.

See appendix E for full GRADE-CERQual tables.

1.1.7 Economic evidence

1.1.7.1 Included studies

A single search was performed to identify published economic evaluations of relevance to any of the questions in this guideline update (see Appendix B). This search retrieved 4,398 studies. Based on title and abstract screening, all of the studies could confidently be excluded for this question, as none of them were found to be relevant.

The search was re-run in July 2020 to identify any studies which had been published since the date of the original search. This returned a total of 577 results. Based on title and abstract screening, all the studies could confidently be excluded for this question. Thus, the review for this question does not include any study from the existing literature.

1.1.7.2 Excluded studies

No full-text copies of articles were requested for this review and so there is no excluded studies list.

1.1.8 Summary of included economic evidence

No studies were applicable to this review question.

1.1.9 Economic model

No economic modelling was undertaken for this review because of a lack of economic evidence and because the committee agreed that other topics were higher priorities for economic evaluation.

1.1.10 The committee's discussion and interpretation of the evidence

1.1.10.1. The outcomes that matter most

The committee stated that support following discharge of the baby from medical care was an important outcome. This includes both babies who are discharged from hospital after birth or medical care after a home birth as well as those who are discharged following treatment for suspected infection. Whereas clinicians within a neonatal unit will be familiar with potential signs of late-onset infection, families will be less aware of the risks and signs. Support at discharge should also influence other important outcomes, such as parental or carer anxiety. By being given clear information at discharge, parents and carers can be more confident in asking for help if their child is displaying any signs of infection. The committee also thought that format of information was important, as not everyone may have access to certain types of resources, such as online content.

1.1.10.2 The quality of the evidence

Only one study, with very low-quality evidence, was included in the review. This study included parents of febrile infants, rather than those specifically with neonatal infection, and excluded preterm babies, who may often be at higher risk of infection. However, the committee decided that this was still relevant to the review as this group of parents will face similar experiences to those with babies who develop late-onset infection. In particular they may have similar experiences in relation to awareness of the symptoms and seeing their child receive examinations that they are not necessarily familiar with. Given the differences in population, the study was assessed as partially relevant to the review and the quality was downgraded for relevance. The quality of the study was further downgraded for risk of bias, due to limited information about the analysis methods used in the research.

The inclusion of only one study in the review meant that it was difficult to assess the coherence of findings for each of the themes identified. However, the themes in the article corresponded with the experience of the committee when considering what information is important and the format in which it is given to parents and carers. The evidence was therefore useful to highlight similarities between the opinions of parents and clinicians on what is important, and it did not identify any unexpected themes that the committee may otherwise not have considered. The committee decided that the evidence corresponded with the recommendations that were made for babies at risk of early-onset infection in the 2012 version of this guideline, which were based on committee consensus. It was therefore decided that the 2012 recommendations should be applied to babies at risk of either early- or late-onset infection in this guideline, with minor updates. The committee decided not to make a research recommendation as it was satisfied that the results matched the experience of both the clinicians and lay members on the committee and were sufficient to be able to make effective recommendations.

1.1.10.3 Benefits and harms

The evidence identified in this review was consistent with principles of good practice when communicating with the parents and carers of babies who are being treated for neonatal infection. It also reflects the knowledge and experience of the committee members as well as the recommendations from the 2012 version of this guideline. The recommendations in the previous version of the guideline were extended to include late-onset neonatal infection. They therefore reflect current practice and are not expected to have any harmful effects.

The previous version of the guideline on early onset infection recommended that parents and carers of babies with risk factors for early onset infection should be given verbal and written information on the signs and symptoms of infection. This corresponds with the evidence

found in the current update, that parents appreciated clear explanations of procedures from clinicians and would like fact sheets to help them process information.

The committee noted that babies at risk of late-onset infection would often be cared for at home. Any baby can develop an infection, even if they are not identified as high risk at the time of discharge. The committee therefore thought it was important that all parents and carers should be given information about the signs and symptoms of neonatal infection, when being discharged from hospital. The importance of giving advice to all parents and carers was reflected in the evidence, where parents were worried about missing the symptoms of infection or being seen as overprotective parents if they took their baby to the hospital. The recommendations should therefore ensure that all parents and carers are given information about the signs of neonatal infection, not just those whose babies are considered to be at high risk of infection. Highlighting this information means that parents will be more confident to seek medical advice if they think their child is unwell, thereby reducing the risk of the serious consequences of untreated neonatal infection.

1.1.10.4 Cost effectiveness and resource use

Since the recommendations are not expected to cause a major change in practice, the issue of cost-effectiveness was not considered explicitly, and no resource impact is expected.

1.1.10.5 Other factors the committee took into account

The committee discussed potential equality issues in relation to language barriers. It highlighted the importance of providing information to parents and carers that is either in their first language or in a language that they can clearly understand. Overcoming language barriers should increase the likelihood of a parent or carer identifying the signs of infection and getting medical care for their baby as early as possible. This will help to reduce the risk of a baby developing potentially serious consequences from not receiving early treatment for neonatal infection. Recommendations on establishing clear communication with people using NHS services are already provided in the NICE Patient experience in adult NHS services guideline (CG138, section 1.5 – enabling patients to actively participate in their care), and so the committee did not make separate recommendations for this, but instead cross referred to this guideline. The patient experience guideline not only covers language barriers but also provides information on other communication barriers, such as visual or hearing impairments, or where a patient advocate or family member may also need to be involved in care. The committee decided that this covered the main things for a clinician to consider when communicating with parents and carers.

A similar issue was highlighted in relation to the format in which information is provided, as some people may not have access to certain formats, such as online guidance. The committee felt that the recommendation that clinicians should provide guidance both verbally and in writing at the time of discharge should ensure that everyone has access to the relevant information.

The evidence indicated that many parents had difficulties in understanding clinical terminology when a clinician was explaining the tests or treatment that their babies would receive. The committee agreed that this was an important issue and were satisfied that the existing recommendations for early-onset infection highlight the main signs of infection in a way that is easy for parents and carers to understand. The description of change in skin colour was extended to be specific about a baby becoming very pale, blue/grey or dark yellow. The committee discussed whether colour changes might differ depending on a baby's skin colour, but they were confident that these colour changes could be seen in all babies

and that the recommendation would not result in equality issues. The recommendations also state that clinicians should discuss the best management options for the baby with parents and carers, as well as explaining the reasons for any treatment. This is important as the evidence highlighted that some parents were concerned about not knowing what was going to happen to their baby while they were in hospital, and others said that they did not always receive clear explanations of procedures.

The committee discussed whether any of the recommendations from the 2012 version of the guideline needed to be updated so that it applied to both early- and late-onset infection. They were satisfied that the recommendations were appropriate for the families and carers of all babies, but decided to extend the definition of breathing difficulties from rapid breathing to abnormal breathing, with a list of potential breathing problems. This will help make parents more aware of what to look for if they are concerned that their baby might have an infection.

1.1.11 Recommendations supported by this evidence review

This evidence review supports recommendations 1.1.1-1.1.13.

1.1.12 References – included studies

1.1.12.1 Effectiveness

De, Sukanya, Tong, Allison, Isaacs, David et al. (2014) Parental perspectives on evaluation and management of fever in young infants: an interview study. Archives of disease in childhood 99(8): 717-23

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Appendices

Appendix A – Review protocols

Review protocol for what information and support should be provided for parents and carers of babies with suspected or confirmed late-onset neonatal infection?

ID	Field	Content
0.	PROSPERO registration number	CRD42019158604
1.	Review title	Information and support for parents and carers of babies with late-onset neonatal infection
2.	Review question	What are the perceived information and support needs for parents and carers with babies with suspected or confirmed late-onset neonatal infection?
3.	Objective	To identify the information and support that should be provided for pregnant women or expectant parents with risk factors for late-onset neonatal infection and for parents and carers of babies at risk of late-onset neonatal infection, and those with suspected or confirmed late-onset neonatal infection. The review will synthesise qualitative data on information needs of parents and carers, as perceived by parents and carers themselves and by health-care professionals.
4.	Searches	The following databases will be searched:

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		• Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Embase • MEDLINE (including 'in process' and 'E-pub ahead of print') • Database of Abstracts of Reviews of Effect (DARE) • Psychinfo Searches will be restricted by: • English language • Human studies • Conference abstracts • No date limit will be used Other searches: None The searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion.

		The full search strategies for MEDLINE database will be published in the final review.
5.	Condition or domain being studied	Infection is a significant cause of mortality and morbidity in neonates. It may be late-onset which, for the purpose of this guideline is classified as infection more than 72 hours after birth, although can be considered as infection at greater than 7 days after birth. Late-onset neonatal infection can lead to life-threatening sepsis, which accounts for 10% of all neonatal deaths.
6.	Population	Inclusion: - Expectant parents, and parents and carers of babies aged under 28 days (corrected age) who may or may not be at risk of late-onset neonatal infection - Parents and carers of babies with suspected or confirmed late-onset neonatal infection - Health-care professionals with experiences of caring for babies with suspected or confirmed late-onset neonatal infection Exclusion:

		• Parents and carers of babies with suspected or confirmed non-bacterial infections.
		• Parents and carers of babies with suspected or confirmed syphilis.
		• Parents and carers of babies with localised infections.
		• Parents and carers of babies with suspected or confirmed bacterial infection resulting from therapeutic interventions such as surgery
		• Parents and carers of babies with suspected or confirmed meningitis who are not receiving care in neonatal units (covered by the NICE guideline on bacterial meningitis and meningococcal septicaemia)
7.	Intervention/Exposure/Test	• Perceived information and support needs of parents and carers of neonates with, or at risk of, neonatal infection among health practitioners and parents and carers.
8.	Comparator/Reference standard/Confounding factors	Not applicable (qualitative review question)
9.	Types of study to be included	Studies using qualitative methods: • Including, semi-structured and structured interviews, focus groups, observations

		• Qualitative data from mixed methods studies will be included. • Data from surveys will not be included Qualitative evidence syntheses of above study types
10.	Other exclusion criteria	Non-English language studies Evidence from non-OECD countries (Non-OECD counties were excluded because the pathogens and risk factors which result in neonatal infection vary between countries. The committee thought that countries who are part of the OECD are likely to have more similar pathogens and standards of care to the UK than those which are not part of the OECD.)
11.	Context	The review will cover all contexts in which information and support is provided to parents and carers who have a child at risk of or who has suspected or confirmed late onset neonatal infection. All settings where care of pregnant women and neonates is provided will be covered including: antenatal care (community or hospital based), postal natal care (community or hospital based), neonatal care (neonatal unit).
12.	Primary outcomes (critical outcomes)	Themes will be identified from the literature and not pre-specified. Relevant themes may include: • Preferred format and content of information provision

		• Decision making
		• Information sources other than healthcare professionals (e.g. support groups, online resources)
		• Parent/carer involvement in decision-making
		• Parental/carer anxiety
		• Impact on the baby's family
		• Delivery of support (e.g. nurse, peer groups)
		• Setting (e.g. community, hospital)
		• Timing of information provision
		• Support following discharge of the baby from hospital
13.	Secondary outcomes (important outcomes)	Not applicable
14.	Data extraction (selection and coding)	All references identified by the searches and from other sources will be uploaded into EPPI reviewer and de-duplicated. 10% of the abstracts will be reviewed by two reviewers, with any disagreements resolved by discussion or, if necessary, a third independent reviewer. The full text of potentially eligible studies will be retrieved and will be assessed in line with the criteria outlined above. A standardised form

		will be used to extract data from studies. Study investigators may be contacted for missing data where time and resources allow. This review will make use of the priority screening functionality within the EPPI-reviewer software. Included studies will be uploaded to NVivo 11 for coding and identification of themes.
15.	Risk of bias (quality) assessment	The methodological quality of the included studies will be assessed using the CASP qualitative checklist as described in Developing NICE guidelines: the manual.
16.	Strategy for data synthesis	Data extracted from the papers will be grouped together into themes (aggregative coding). These themes will be examined for common factors and differences, which will be reported in the summary of qualitative findings table. The quality of evidence will be assessed used GRADE-CERQual.
17.	Analysis of sub-groups	Stratifications: • Term vs preterm babies • babies who have been admitted to hospital from home

		• Vulnerable women (including non-attenders at antenatal clinics, low socioeconomic status (defined using deprivation quintiles), level of education or low income) • ethnicity • People for who English is a second language • age of parent/carer (under 25s vs older parents) The stratifications listed above will be coded. Within each theme, evidence for each of the stratified groups will be presented separately.
18.	Type and method of review	☐ Intervention ☐ Diagnostic ☐ Prognostic ☐ Qualitative ☐ Epidemiologic ☐ Service Delivery ☐ Other (please specify)

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19.	Language	English		
20.	Country	England		
21.	Anticipated or actual start date	01/01/2019		
22.	Anticipated completion date	12/08/2020		
23.	Stage of review at time of this submission	**Review stage**	**Started**	**Completed**
		Preliminary searches		
		Piloting of the study selection process		
		Formal screening of search results against eligibility criteria		
		Data extraction		

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		Risk of bias (quality) assessment		
		Data analysis		
24.	Named contact	**5a. Named contact** Guideline Updates Team **5b Named contact e-mail** NIupdate@nice.org.uk **5e Organisational affiliation of the review** National Institute for Health and Care Excellence (NICE)		
25.	Review team members	From the Guideline Updates Team: • Dr Kathryn Hopkins • Dr Clare Dadswell • Mr Fadi Chehadah • Mr Wesley Hubbard • Dr Stacey Chang-Douglass		
26.	Funding sources/sponsor	This systematic review is being completed by the Centre for Guidelines which receives funding from NICE.		

27.	Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
28.	Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website.
29.	Other registration details	None
30.	Reference/URL for published protocol	None
31.	Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: • notifying registered stakeholders of publication • publicising the guideline through NICE's newsletter and alerts

		• issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
32.	Keywords	Information, support, late onset neonatal infection
33.	Details of existing review of same topic by same authors	None
34.	Current review status	☐ Ongoing ☐ Completed but not published ☐ Completed and published ☐ Completed, published and being updated ☐ Discontinued
35..	Additional information	None
36.	Details of final publication	The guideline with supporting evidence reviews will be published on the NICE website.

Appendix B – Literature search strategies

Clinical search literature search strategy

The search was conducted on 12th March 2020. The following databases were searched:

Medline, Medline In Process, Medline E-pub Ahead of print, Embase, PsycINFO (all via the Ovid platform), Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, (both via the Wiley platform), and the DARE database (via the CRD platform).

Population and Intervention terms

Medline, Medline in Process, Medline E-pub Ahead of Print

1   exp Infant, Newborn/

2   Term Birth/

3   Infant Care/

4   Perinatal Care/

5   Intensive Care Units, Neonatal/

6   Intensive Care, Neonatal/

7   Infant Health/

8   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw.

9   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw.

10   or/1-9

11   exp Bacterial Infections/

12   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw.

13   exp Sepsis/

14   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw.

15   (septic* adj4 shock*).tw.

16   (bacter?emia* or bacill?emia*).tw.

17   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw.

18   or/11-17

19   exp Streptococcus/

20   exp Staphylococcus/

21   (streptococc* or staphylococc*).tw.

22   (GBS or MRSA or NRCS-A or MSSA).tw.

23   (met?icillin-resistant adj3 aureus).tw.

24   exp Escherichia coli/

25   (((Escheric* or E) adj2 coli) or ecoli*).tw.

26   exp Listeria/

27   listeria*.tw.

28   exp Klebsiella/

29   klebsiella*.tw.

30   exp Pseudomonas/

31   (pseudomonas or chryseomonas or flavimonas).tw.

32   Enterobacteriaceae/

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw.

34   ((enteric or coliform) adj2 bac*).tw.

35   exp Neisseria/

36   neisseria*.tw.

37   exp Haemophilus influenzae/

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw.

39   exp Serratia/

40   serratia*.tw.

41   exp Cronobacter/

42   (cronobact* or sakazaki* or malonatic*).tw.

43   exp Acinetobacter/

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw.

45   exp Fusobacterium/

46   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw.

47   exp Enterococcus/

48   enterococc*.tw.

49   or/19-48

50   18 or 49

51   10 and 50

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw.

53   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw.

54   52 or 53

55   51 or 54

56   Parental Notification/

57   exp Third-Party Consent/

58   exp Parents/ed, lj

59   Caregivers/ed, lj

60   Family/ed, lj

61   Grandparents/ed, lj

62   exp Legal Guardians/ed, lj

63   Professional Family Relations/

64   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) adj4 (inform* or support* or consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or knowledge* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*)).tw.

65   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) adj4 (advice* or advis* or material* or litera* or help* or assist* or network* or workshop* or work-shop* or group* or association* or organi?ation* or forum* or program* or service* or exchang* or meeting* or discuss*)).tw.

66   ((professional* or practitioner*) adj4 (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) adj4 (relations* or associate*)).tw.

67   or/56-66

68   exp Parents/

69   Family/

70   Caregivers/

71   Grandparents/

72   exp Legal Guardians/

73   (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*).tw.

74   or/68-73

75   exp Patient Acceptance of Health Care/

76   exp Attitude to Health/

77   exp Patient Compliance/

78   exp Social Support/

79   Friends/

80   Interpersonal Relations/

81   exp Peer Group/

82   exp Social Networking/

83   exp Consumer Health Information/

84   Information Dissemination/

85   exp Information Literacy/

86   Health Promotion/

87   exp Professional-Patient Relations/

88   (information* or communicat* or advice* or advis* or support*).ti.

89   ((patient* or peer* or health* or medic* or consumer*) adj4 (inform* or support* or advice* or advis* or knowledge* or material* or litera*)).tw.

90   (patient* adj4 (consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*)).tw.

91   ((information* or advice* or advis* or support* or help* or assist* or litera*) adj4 (need* or demand* or right* or oblig* or use* or using* or desir* or requir* or expect* or suggest* or disseminat* or distribut* or provision*)).tw.

92   ((information* or advice* or advis* or help* or assist* or litera*) adj4 support*).tw.

93   ((pysch* or emot* or mental* or sentiment*) adj4 (support* or help* or advice* or advis* or assist* or workshop* or work-shop*)).tw.

94   ((friend* or buddy* or buddies* or befriend* or be-friend* or companion*) adj4 (support* or help* or advice* or advis* or assist* or network* or workshop* or work-shop*)).tw.

95   ((patient* or support* or consumer* or social*) adj4 (group* or association* or organi?ation* or network* or forum* or program* or workshop* or work-shop*)).tw.

96   ((peer* or communit* or volunteer* or voluntary* or social*) adj4 (group* or support* or network* or service* or program* or forum* or workshop* or work-shop* or exchang* or meeting* or discuss*)).tw.

97   ((health* or well-ness* or wellness* or well-being* or wellbeing* or resilien* or coping*) adj4 (promot* or campaign* or advocat* or encourag* or improv* or workshop* or work-shop* or strateg*)).tw.

98   ((helpseek* or seek* or search*) adj4 (support* or help* or advice* or advis* or assist* or help*)).tw.

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99   (selfhelp* or self-help* or selfmanag* or self-manag* or self-support* or selfsupport*).tw.

100   ((professional* or practitiioner*) adj4 patient* adj4 (relations* or associate*)).tw.

101   Health Education/

102   Patient Education as Topic/

103   (educat* or learn* or teach* or instruct* or taught* or train or training*).tw.

104   or/75-103

105   74 and 104

106   patient education handout.pt.

107   Pamphlets/

108   (booklet* or leaflet* or pamphlet* or brochure* or handout* or hand-out*).tw.

109   exp Computers/

110   exp Computer Communication Networks/

111   Computer Assisted Instruction/

112   exp User-Computer Interface/

113   Therapy, Computer-Assisted/

114   Cloud Computing/

115   exp Online Systems/

116   Mobile Applications/

117   Medical Informatics Applications/

118   (online or web or internet or digital*).ti.

119   (app or apps).tw.

120   ((internet* or web or cloud* or digital* or online*) adj3 (base* or comput* or process* or stor* or system* or application* or intervention* or program* or therap* or forum* or tablet*)).tw.

121   ((laptop* or palm* or handheld* or tablet* or pda or pc) adj2 comput*).tw.

122   (email* or e-mail* or electronic mail*).tw.

123   Search Engine/

124   (search* adj2 engine*).tw.

125   exp Telephone/

126   Hotlines/

127   (telephon* or helpline* or help-line* or hotline* or hot-line* or cellphone* or texting* or phone or phones* or smartphone* or smartwatch*).tw.

128   ((text* or audio* or multimedia* or multi-media* or intstant* or pictur*) adj2 messag*).tw.

129   (mobile health* or mhealth* or m-health* or ehealth* or e-health* or emental* or e-mental*).tw.

130   (mobile* adj3 (base* or application* or intervention* or device* or technolog* or tablet*)).tw.

131   exp Audiovisual Aids/

132   (audiovisual* or audio-visual*).tw.

133   (visual* adj2 aid*).tw.

134   (radio or radios or television* or DVD* or blu-ray* or VHS* or video*).tw.

135   exp Communications Media/

136   ((communication* or transmiss* or transmit* or social*) adj4 media*).tw.

137   (Facebook* or Twitter* or WhatsApp* or Snapchat* or Linkedin* or Instagram* or YouTube* or Wikipedia* or Reddit*).tw.

138   (telecommunicat* or teleconference*).tw.

139   (tele* adj2 (communicat* or conference*)).tw.

140   Blogging/

141   (blog* or vlog*).tw.

142   or/106-141

143   67 or 105 or 142

144   55 and 143

145   Animals/ not Humans/

146   144 not 145

147   limit 146 to english language

Embase

1   newborn/

2   term birth/

3   infant care/

4   perinatal care/

5   neonatal intensive care unit/

6   newborn intensive care/

7   child health/

8   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw.

9   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw.

10   or/1-9

11   exp bacterial infection/

12   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw.

13   exp sepsis/

14   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw.

15   (septic* adj4 shock*).tw.

16   (bacter?emia* or bacill?emia*).tw.

17   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw.

18   or/11-17

19   exp Streptococcus/

20   exp Staphylococcus/

21   (streptococc* or staphylococc*).tw.

22   (GBS or MRSA or NRCS-A or MSSA).tw.

23   (met?icillin-resistant adj3 aureus).tw.

24   exp Escherichia coli/

25   (((Escheric* or E) adj2 coli) or ecoli*).tw.

26   exp Listeria/

27   listeria*.tw.

28   exp Klebsiella/

29   klebsiella*.tw.

30   exp Pseudomonas/

31   (pseudomonas or chryseomonas or flavimonas).tw.

32   Enterobacteriaceae/

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw.

34   ((enteric or coliform) adj2 bac*).tw.

35   exp Neisseria/

36   neisseria*.tw.

37   exp Haemophilus influenzae/

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw.

39   exp Serratia/

40   serratia*.tw.

41   exp cronobacter/

42   (cronobact* or sakazaki* or malonatic*).tw.

43   exp Acinetobacter/

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw.

45   exp Fusobacterium/

46   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw.

47   exp Enterococcus/

48   enterococc*.tw.

49   or/19-48

50   18 or 49

51   10 and 50

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw.

53   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw.

54   52 or 53

55   51 or 54

56   parental notification/

57   informed consent/

58   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) adj4 (inform* or support* or consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or knowledge* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*)).tw.

59   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) adj4 (advice* or advis* or material* or litera* or help* or assist* or network* or workshop* or work-shop* or group* or association* or organi?ation* or forum* or program* or service* or exchang* or meeting* or discuss*)).tw.

60   ((professional* or practitioner*) adj4 (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) adj4 (relations* or associate*)).tw.

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61   or/56-60

62   exp parent/

63   family/

64   caregiver/

65   exp grandparent/

66   legal guardian/

67   (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or
wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or
stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad*
or grandfather* or third-part* or stepfamil*).tw.

68   or/62-67

69   exp patient attitude/

70   attitude to health/

71   social support/

72   friend/

73   friendship/

74   human relation/

75   exp peer group/

76   exp social network/

77   consumer health information/

78   information dissemination/

79   information literacy/

80   health promotion/

81   exp professional-patient relationship/

82   (information* or communicat* or advice* or advis* or support*).ti.

83   ((patient* or peer* or health* or medic* or consumer*) adj4 (inform* or support* or
advice* or advis* or knowledge* or material* or litera*)).tw.

84   (patient* adj4 (consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or
permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat*
or represent* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or
complian* or adher* or accede*)).tw.

85   ((information* or advice* or advis* or support* or help* or assist* or litera*) adj4 (need*
or demand* or right* or oblig* or use* or using* or desir* or requir* or expect* or suggest* or
disseminat* or distribut* or provision*)).tw.

86   ((information* or advice* or advis* or help* or assist* or litera*) adj4 support*).tw.

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87   ((pysch* or emot* or mental* or sentiment*) adj4 (support* or help* or advice* or advis* or assist* or workshop* or work-shop*)).tw.

88   ((friend* or buddy* or buddies* or befriend* or be-friend* or companion*) adj4 (support* or help* or advice* or advis* or assist* or network* or workshop* or work-shop*)).tw.

89   ((patient* or support* or consumer* or social*) adj4 (group* or association* or organi?ation* or network* or forum* or program* or workshop* or work-shop*)).tw.

90   ((peer* or communit* or volunteer* or voluntary* or social*) adj4 (group* or support* or network* or service* or program* or forum* or workshop* or work-shop* or exchang* or meeting* or discuss*)).tw.

91   ((health* or well-ness* or wellness* or well-being* or wellbeing* or resilien* or coping*) adj4 (promot* or campaign* or advocat* or encourag* or improv* or workshop* or work-shop* or strateg*)).tw.

92   ((helpseek* or seek* or search*) adj4 (support* or help* or advice* or advis* or assist* or help*)).tw.

93   (selfhelp* or self-help* or selfmanag* or self-manag* or self-support* or selfsupport*).tw.

94   ((professional* or practitiioner*) adj4 patient* adj4 (relations* or associate*)).tw.

95   health education/

96   patient education/

97   (educat* or learn* or teach* or instruct* or taught* or train or training*).tw.

98   or/69-97

99   68 and 98

100   (booklet* or leaflet* or pamphlet* or brochure* or handout* or hand-out*).tw.

101   exp computer/

102   exp internet/

103   computer interface/

104   exp computer assisted therapy/

105   cloud computing/

106   online system/

107   exp mobile application/

108   medical informatics/

109   (online or web or internet or digital*).ti.

110   (app or apps).tw.

111   ((internet* or web or cloud* or digital* or online*) adj3 (base* or comput* or process* or stor* or system* or application* or intervention* or program* or therap* or forum* or tablet*)).tw.

112   ((laptop* or palm* or handheld* or tablet* or pda or pc) adj2 comput*).tw.

113   e-mail/

114   (email* or e-mail* or electronic mail*).tw.

115   search engine/

116   (search* adj2 engine*).tw.

117   telephone/

118   exp mobile phone/

119   hotline/

120   (telephon* or helpline* or help-line* or hotline* or hot-line* or cellphone* or texting* or phone or phones* or smartphone* or smartwatch*).tw.

121   text messaging/

122   ((text* or audio* or multimedia* or multi-media* or intstant* or pictur*) adj2 messag*).tw.

123   (mobile health* or mhealth* or m-health* or ehealth* or e-health* or emental* or e-mental*).tw.

124   (mobile* adj3 (base* or application* or intervention* or device* or technolog* or tablet*)).tw.

125   exp audiovisual equipment/

126   audiovisual aid/

127   radio/

128   (audiovisual* or audio-visual*).tw.

129   (visual* adj2 aid*).tw.

130   (radio or radios or television* or DVD* or blu-ray* or VHS* or video*).tw.

131   mass medium/

132   social media/

133   ((communication* or transmiss* or transmit* or social*) adj4 media*).tw.

134   (Facebook* or Twitter* or WhatsApp* or Snapchat* or Linkedin* or Instagram* or YouTube* or Wikipedia* or Reddit*).tw.

135   exp telecommunication/

136   (telecommunicat* or teleconference*).tw.

137   (tele* adj2 (communicat* or conference*)).tw.

138   blogging/

139   (blog* or vlog*).tw.

140   or/100-139

141   61 or 99 or 140

142   55 and 141

143   nonhuman/ not human/

144   142 not 143

145   limit 144 to english language

146   limit 145 to (conference abstract or conference paper or "conference review")

147   145 not 146

PsycINFO

1   exp infant development/

2   neonatal period/

3   exp birth/

4   perinatal period/

5   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw.

6   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw.

7   or/1-6

8   exp bacterial disorders/

9   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw.

10   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw.

11   (bacter?emia* or bacill?emia*).tw.

12   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw.

13   (septic* adj4 shock*).tw.

14   or/8-13

15   exp microorganisms/

16   (streptococc* or staphylococc*).tw.

17   (GBS or MRSA or NRCS-A or MSSA).tw.

18   (met?icillin-resistant adj3 aureus).tw.

19   (((Escheric* or E) adj2 coli) or ecoli*).tw.

20   listeria*.tw.

21   klebsiella*.tw.

22   (pseudomonas or chryseomonas or flavimonas).tw.

23   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw.

24   ((enteric or coliform) adj2 bac*).tw.

25   neisseria*.tw.

26   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw.

27   serratia*.tw.

28   (cronobact* or sakazaki* or malonatic*).tw.

29   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw.

30   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw.

31   enterococc*.tw.

32   or/15-31

33   14 or 32

34   7 and 33

35   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw.

36   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw.

37   35 or 36

38   34 or 37

39   limit 38 to human

40   limit 39 to english language

41   limit 40 to (chapter or dissertation or encyclopedia entry or obituary or poetry or review-book or review-media)

42   40 not 41

43   limit 42 to (classic book or conference proceedings or "handbook/manual" or reference book or "textbook/study guide")

44   42 not 43

Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials

#1   MeSH descriptor: [Infant, Newborn] explode all trees

#2   MeSH descriptor: [Term Birth] this term only

#3   MeSH descriptor: [Infant Care] this term only

#4   MeSH descriptor: [Perinatal Care] this term only

#5   MeSH descriptor: [Intensive Care Units, Neonatal] this term only

#6   MeSH descriptor: [Intensive Care, Neonatal] this term only

#7   MeSH descriptor: [Infant Health] this term only

#8   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*)):ti,ab,kw

#9   ((premature* or pre-mature* or preterm* or pre-term*) near/4 (child* or infant* or baby* or babies* or offspring)):ti,ab,kw

#10   {or #1-#9}

#11   MeSH descriptor: [Bacterial Infections] 1 tree(s) exploded

#12   ((bacter* or strep* or staph* or GNB) near/4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)):ti,ab,kw

#13   MeSH descriptor: [Sepsis] 2 tree(s) exploded

#14   (sepsis or septic?emia* or py?emia* or pyho?emia*):ti,ab,kw

#15   (septic* near/4 shock*):ti,ab,kw

#16   (bacter?emia* or bacill?emia*):ti,ab,kw

#17   ((blood*) near/4 (infect* or contamin* or invas* or invad*)):ti,ab,kw

#18   {or #11-#17}

#19   MeSH descriptor: [Streptococcus] explode all trees

#20   MeSH descriptor: [Staphylococcus] explode all trees

#21   (streptococc* or staphylococc*):ti,ab,kw

#22   (GBS or MRSA or NRCS-A or MSSA):ti,ab,kw

#23   (met?icillin-resistant near/3 aureus):ti,ab,kw

#24   MeSH descriptor: [Escherichia coli] explode all trees

#25   ((((Escheric* or E) near/2 (coli)) or (ecoli*))):ti,ab,kw

#26   MeSH descriptor: [Listeria] explode all trees

#27   (listeria*):ti,ab,kw

#28   MeSH descriptor: [Klebsiella] explode all trees

#29   (klebsiella*):ti,ab,kw

#30   MeSH descriptor: [Pseudomonas] explode all trees

#31   (pseudomonas or chryseomonas or flavimonas):ti,ab,kw

#32   MeSH descriptor: [Enterobacteriaceae] explode all trees

#33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia):ti,ab,kw

#34   ((enteric or coliform) near/2 (bac*)):ti,ab,kw

#35   MeSH descriptor: [Neisseria] explode all trees

#36   (neisseria*):ti,ab,kw

#37   MeSH descriptor: [Haemophilus influenzae] explode all trees

#38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) near/2 (influenz*
or pfeiffer* or meningitidis)):ti,ab,kw

#39   MeSH descriptor: [Serratia] explode all trees

#40   (serratia*):ti,ab,kw

#41   MeSH descriptor: [Cronobacter] explode all trees

#42   (cronobact* or sakazaki* or malonatic*):ti,ab,kw

#43   MeSH descriptor: [Acinetobacter] explode all trees

#44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or
calcoacetic*):ti,ab,kw.

#45   MeSH descriptor: [Fusobacterium] explode all trees

#46   (fusobact* or sphaerophor* or necrophorum or nucleatum):ti,ab,kw

#47   MeSH descriptor: [Enterococcus] explode all trees

#48   (enterococc*):ti,ab,kw

#49   {or #19-#48}

#50   #18 or #49

#51   #10 and #50

#52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) near/4
(infect*)):ti,ab,kw

#53   ((premature* or pre-mature* or "preterm*" or "pre-term*") near/4 (child* or infant* or
baby* or babies* or offspring) near/4 (infect*)):ti,ab,kw

#54   #52 or #53

#55   #51 or #54

#56   MeSH descriptor: [Parental Notification] this term only

#57   MeSH descriptor: [Third-Party Consent] explode all trees

#58   MeSH descriptor: [Parents] explode all trees and with qualifier(s): [education - ED]

#59   MeSH descriptor: [Caregivers] this term only and with qualifier(s): [legislation &
jurisprudence - LJ, education - ED]

#60   MeSH descriptor: [Grandparents] this term only and with qualifier(s): [education - ED]

#61   MeSH descriptor: [Legal Guardians] explode all trees and with qualifier(s): [education
- ED, legislation & jurisprudence - LJ]

#62   MeSH descriptor: [Professional-Family Relations] this term only

#63   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or
wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or
stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad*
or grandfather* or third-part* or stepfamil*) near/4 (inform* or support* or consent* or approv*

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or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or knowledge* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*)):ti,ab,kw

#64   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) near/4 (advice* or advis* or material* or litera* or help* or assist* or network* or workshop* or work-shop* or group* or association* or organi?ation* or forum* or program* or service* or exchang* or meeting* or discuss*)):ti,ab,kw

#65   ((professional* or practitioner*) near/4 (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) near/4 (relations* or associate*)):ti,ab,kw

#66   {or #56-#65}

#67   MeSH descriptor: [Parents] explode all trees

#68   MeSH descriptor: [Family] this term only

#69   MeSH descriptor: [Caregivers] this term only

#70   MeSH descriptor: [Grandparents] this term only

#71   MeSH descriptor: [Legal Guardians] explode all trees

#72   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*)):ti,ab,kw

#73   {or #67-#72}

#74   MeSH descriptor: [Patient Acceptance of Health Care] explode all trees

#75   MeSH descriptor: [Attitude to Health] explode all trees

#76   MeSH descriptor: [Patient Compliance] explode all trees

#77   MeSH descriptor: [Social Support] explode all trees

#78   MeSH descriptor: [Friends] this term only

#79   MeSH descriptor: [Interpersonal Relations] this term only

#80   MeSH descriptor: [Peer Group] explode all trees

#81   MeSH descriptor: [Social Networking] explode all trees

#82   MeSH descriptor: [Consumer Health Information] explode all trees

#83   MeSH descriptor: [Information Dissemination] this term only

#84   MeSH descriptor: [Information Literacy] explode all trees

#85   MeSH descriptor: [Health Promotion] this term only

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Neonatal infection: antibiotics for prevention and treatment evidence review for information and suppor late-onset neonatal infection FINAL (April 2021)

#86   MeSH descriptor: [Professional-Patient Relations] explode all trees

#87   (information* or communicat* or advice* or advis* or support*):ti

#88   ((patient* or peer* or health* or medic* or consumer*) near/4 (inform* or support* or advice* or advis* or knowledge* or material* or litera*)):ti,ab,kw

#89   ((patient*) near/4 (consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*)):ti,ab,kw

#90   ((information* or advice* or advis* or support* or help* or assist* or litera*) near/4 (need* or demand* or right* or oblig* or use* or using* or desir* or requir* or expect* or suggest* or disseminat* or distribut* or provision*)):ti,ab,kw

#91   ((information* or advice* or advis* or help* or assist* or litera*) near/4 (support*)):ti,ab,kw

#92   ((pysch* or emot* or mental* or sentiment*) near/4 (support* or help* or advice* or advis* or assist* or workshop* or work-shop*)):ti,ab,kw

#93   ((friend* or buddy* or buddies* or befriend* or be-friend* or companion*) near/4 (support* or help* or advice* or advis* or assist* or network* or workshop* or work-shop*)):ti,ab,kw

#94   ((patient* or support* or consumer* or social*) near/4 (group* or association* or organi?ation* or network* or forum* or program* or workshop* or work-shop*)):ti,ab,kw

#95   ((peer* or communit* or volunteer* or voluntary* or social*) near/4 (group* or support* or network* or service* or program* or forum* or workshop* or work-shop* or exchang* or meeting* or discuss*)):ti,ab,kw

#96   ((health* or well-ness* or wellness* or well-being* or wellbeing* or resilien* or coping*) near/4 (promot* or campaign* or advocat* or encourag* or improv* or workshop* or work-shop* or strateg*)):ti,ab,kw

#97   ((helpseek* or seek* or search*) near/4 (support* or help* or advice* or advis* or assist* or help*)):ti,ab,kw

#98   (selfhelp* or self-help* or selfmanag* or self-manag* or self-support* or selfsupport*):ti,ab,kw

#99   ((professional* or practitiioner*) near/4 (patient*) near/4 (relations* or associate*)):ti,ab,kw

#100   MeSH descriptor: [Health Education] this term only

#101   MeSH descriptor: [Patient Education as Topic] this term only

#102   (educat* or learn* or teach* or instruct* or taught* or train or training*):ti,ab,kw

#103   {or #74-#102}

#104   #73 and #103

#105   (patient education handout):pt

#106   MeSH descriptor: [Pamphlets] this term only

#107   (booklet* or leaflet* or pamphlet* or brochure* or handout* or hand-out*):ti,ab,kw

#108   MeSH descriptor: [Computers] explode all trees

#109   MeSH descriptor: [Computer Communication Networks] explode all trees

#110   MeSH descriptor: [Computer-Assisted Instruction] this term only

#111   MeSH descriptor: [User-Computer Interface] explode all trees

#112   MeSH descriptor: [Therapy, Computer-Assisted] this term only

#113   MeSH descriptor: [Cloud Computing] this term only

#114   MeSH descriptor: [Online Systems] explode all trees

#115   MeSH descriptor: [Mobile Applications] this term only

#116   MeSH descriptor: [Medical Informatics Applications] this term only

#117   (online or web or internet or digital*):ti

#118   (app or apps):ti,ab,kw

#119   ((internet* or web or cloud* or digital* or online*) near/3 (base* or comput* or process* or stor* or system* or application* or intervention* or program* or therap* or forum* or tablet*)):ti,ab,kw

#120   ((laptop* or palm* or handheld* or tablet* or pda or pc) near/2 (comput*)):ti,ab,kw

#121   (email* or e-mail* or electronic mail*):ti,ab,kw

#122   MeSH descriptor: [Search Engine] this term only

#123   (search* near/2 engine*):ti,ab,kw

#124   MeSH descriptor: [Telephone] explode all trees

#125   MeSH descriptor: [Hotlines] this term only

#126   (telephon* or helpline* or help-line* or hotline* or hot-line* or cellphone* or texting* or phone or phones* or smartphone* or smartwatch*):ti,ab,kw

#127   ((text* or audio* or multimedia* or multi-media* or intstant* or pictur*) near/2 (messag*)):ti,ab,kw

#128   (mobile health* or mhealth* or m-health* or ehealth* or e-health* or emental* or e-mental*):ti,ab,kw

#129   ((mobile*) near/3 (base* or application* or intervention* or device* or technolog* or tablet*)):ti,ab,kw

#130   MeSH descriptor: [Audiovisual Aids] explode all trees

#131   (audiovisual* or audio-visual*):ti,ab,kw

#132   (visual* near/2 aid*):ti,ab,kw

#133   (radio or radios or television* or DVD* or blu-ray* or VHS* or video*):ti,ab,kw

#134   MeSH descriptor: [Communications Media] explode all trees

#135   ((communication* or transmiss* or transmit* or social*) near/4 (media*)):ti,ab,kw

#136   (Facebook* or Twitter* or WhatsApp* or Snapchat* or Linkedin* or Instagram* or YouTube* or Wikipedia* or Reddit*):ti,ab,kw

#137   (telecommunicat* or teleconference*):ti,ab,kw

#138   ((tele*) near/2 (communicat* or conference*)):ti,ab,kw

#139   MeSH descriptor: [Blogging] this term only

#140   (blog* or vlog*):ti,ab,kw

#141   {or #105-#140}

#142   #66 or #104 or #141

#143   #55 and #142

#144   (conference):pt

#145   (clinicaltrials or trialsearch):so

#146   #144 or #145

#147   #143 not #146

DARE

1   MeSH DESCRIPTOR infant, Newborn

2   MeSH DESCRIPTOR Term Birth

3   MeSH DESCRIPTOR Infant Care

4   MeSH DESCRIPTOR Perinatal Care

5   MeSH DESCRIPTOR Intensive Care Units, Neonatal

6   MeSH DESCRIPTOR Intensive Care, Neonatal

7   MeSH DESCRIPTOR Infant Health

8   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*)

9   ((premature* or pre-mature* or preterm* or pre-term*) NEAR4 (child* or infant* or baby* or babies* or offspring))

10   #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9

11   MeSH DESCRIPTOR Bacterial Infections EXPLODE ALL TREES

12   ((bacter* or strep* or staph* or GNB) NEAR4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*))

13   MeSH DESCRIPTOR Sepsis EXPLODE ALL TREES

14   (sepsis or septic?emia* or py?emia* or pyho?emia*)

15   (septic* NEAR4 shock*)

16   (bacter?emia* or bacill?emia*)

17   ((blood*) NEAR4 (infect* or contamin* or invas* or invad*))

18   #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17

19   MeSH DESCRIPTOR Streptococcus EXPLODE ALL TREES

20   MeSH DESCRIPTOR Staphylococcus EXPLODE ALL TREES

21   (streptococc* or staphylococc*)

22   (GBS or MRSA or NRCS-A or MSSA)

23   (met?icillin-resistant NEAR3 aureus)

24   MeSH DESCRIPTOR Escherichia coli EXPLODE ALL TREES

25   (((Escheric* or E) NEAR2 (coli) OR (ecoli*)))

26   MeSH DESCRIPTOR Listeria EXPLODE ALL TREES

27   (listeria*)

28   MeSH DESCRIPTOR Klebsiella EXPLODE ALL TREES

29   (klebsiella)

30   MeSH DESCRIPTOR Pseudomonas EXPLODE ALL TREES

31   (pseudomonas or chryseomonas or flavimonas)

32   MeSH DESCRIPTOR Enterobacteriaceae EXPLODE ALL TREES

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia)

34   ((enteric or coliform) NEAR2 (bac*))

35   MeSH DESCRIPTOR Neisseria EXPLODE ALL TREES

36   (neisseria*)

37   MeSH DESCRIPTOR Haemophilus influenzae EXPLODE ALL TREES

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) NEAR2 (influenz* or pfeiffer* or meningitidis))

39   MeSH DESCRIPTOR Serratia EXPLODE ALL TREES

40   (serratia*)

41   MeSH DESCRIPTOR Cronobacter EXPLODE ALL TREES

42   (cronobact* or sakazaki* or malonatic*)

43   MeSH DESCRIPTOR Acinetobacter EXPLODE ALL TREES

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*)

45   MeSH DESCRIPTOR Fusobacterium EXPLODE ALL TREES

46   (fusobact* or sphaerophor* or necrophorum or nucleatum)

47   MeSH DESCRIPTOR Enterococcus EXPLODE ALL TREES

48   (enterococc*)

49   (#19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 OR #46 OR #47 OR #48)

50   (#18 OR #49)

51   (#10 AND #50)

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) NEAR4 (infect*))

53   ((prematur*e or pre-mature* or preterm* or pre-term*) NEAR4 (child* or infant* or baby* or babies* or offspring) NEAR4 (infect*))

54   (#52 OR #53)

55   (#51 OR #54)

56   MeSH DESCRIPTOR Parental Notification

57   MeSH DESCRIPTOR third-Party Consent EXPLODE ALL TREES

58   MeSH DESCRIPTOR Parents EXPLODE ALL TREES WITH QUALIFIER ED

59   MeSH DESCRIPTOR Caregivers WITH QUALIFIERS ED, LJ

60   MeSH DESCRIPTOR Grandparents WITH QUALIFIER ED

61   MeSH DESCRIPTOR Legal Guardians EXPLODE ALL TREES WITH QUALIFIERS ED, LJ

62   MeSH DESCRIPTOR Professional-Family Relations

63   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) NEAR4 (inform* or support* or consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or knowledge* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*))

64   ((parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) NEAR4 (advice* or advis* or material* or litera* or help* or assist* or network* or workshop* or work-shop* or group* or association* or organi?ation* or forum* or program* or service* or exchang* or meeting* or discuss*))

65   ((professional* or practitioner*) NEAR4 (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*) NEAR4 (relations* or associate*))

66   #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65

67   MeSH DESCRIPTOR Parents EXPLODE ALL TREES

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68   MeSH DESCRIPTOR Family

69   MeSH DESCRIPTOR Caregivers

70   MeSH DESCRIPTOR Grandparents

71   MeSH DESCRIPTOR Legal Guardians EXPLODE ALL TREES

72   (parent* or famil* or carer* or caregiv* or care-giv* or spous* or husband* or wife* or wive* or mother* or father* or dad* or mum* or mom* or stepparent* or stepfather* or stepmother* or stepm?m* or stepdad* or guardian* or grandparent* or grandm* or grandad* or grandfather* or third-part* or stepfamil*)

73   #67 OR #68 OR #69 OR #70 OR #71 OR #72

74   MeSH DESCRIPTOR Patient Acceptance of Health Care EXPLODE ALL TREES

75   MeSH DESCRIPTOR Attitude to Health EXPLODE ALL TREES

76   MeSH DESCRIPTOR Patient Compliance EXPLODE ALL TREES

77   MeSH DESCRIPTOR Social Support EXPLODE ALL TREES

78   MeSH DESCRIPTOR Friends

79   MeSH DESCRIPTOR Interpersonal Relations

80   MeSH DESCRIPTOR Peer Group EXPLODE ALL TREES

81   MeSH DESCRIPTOR Social Networking EXPLODE ALL TREES

82   MeSH DESCRIPTOR Consumer Health Information EXPLODE ALL TREES

83   MeSH DESCRIPTOR Information Dissemination

84   MeSH DESCRIPTOR Information Literacy EXPLODE ALL TREES

85   MeSH DESCRIPTOR Health Promotion

86   MeSH DESCRIPTOR Professional-Patient Relations EXPLODE ALL TREES

87   (information* or communicat* or advice* or advis* or support*):TI

88   ((patient* or peer* or health* or medic* or consumer*) NEAR4 (inform* or support* or advice* or advis* or knowledge* or material* or litera*))

89   ((patient*) NEAR4 (consent* or approv* or assent* or acquiesc* or authori?e* or permiss* or permit* or sanction* or accord or accords or notif* or disclos* or involv* or engag* or advocat* or represent* or recommend* or accept* or nonaccept* or utiliz* or utilis* or comply* or complian* or adher* or accede*))

90   ((information* or advice* or advis* or support* or help* or assist* or litera*) NEAR4 (need* or demand* or right* or oblig* or use* or using* or desir* or requir* or expect* or suggest* or disseminat* or distribut* or provision*))

91   ((information* or advice* or advis* or help* or assist* or litera*) NEAR4 (support*))

92   ((pysch* or emot* or mental* or sentiment*) NEAR4 (support* or help* or advice* or advis* or assist* or workshop* or work-shop*))

93   ((friend* or buddy* or buddies* or befriend* or be-friend* or companion*) NEAR4 (support* or help* or advice* or advis* or assist* or network* or workshop* or work-shop*))

94   ((patient* or support* or consumer* or social*) NEAR4 (group* or association* or organi?ation* or network* or forum* or program* or workshop* or work-shop*))

95   ((peer* or communit* or volunteer* or voluntary* or social*) NEAR4 (group* or support* or network* or service* or program* or forum* or workshop* or work-shop* or exchang* or meeting* or discuss*))

96   ((health* or well-ness* or wellness* or well-being* or wellbeing* or resilien* or coping*) NEAR4 (promot* or campaign* or advocat* or encourag* or improv* or workshop* or work-shop* or strateg*))

97   ((helpseek* or seek* or search*) NEAR4 (support* or help* or advice* or advis* or assist* or help*))

98   (selfhelp* or self-help* or selfmanag* or self-manag* or self-support* or selfsupport*)

99   ((professional* or practitiioner*) NEAR4 (patient*) NEAR4 (relations* or associate*))

100   MeSH DESCRIPTOR Health Education

101   MeSH DESCRIPTOR Patient Education as Topic

102   (educat* or learn* or teach* or instruct* or taught* or train or training*)

103   #74 OR #75 OR #76 OR #77 OR #78 OR #79 OR #80 OR #81 OR #82 OR #83 OR #84 OR #85 OR #86 OR #87 OR #88 OR #89 OR #90 OR #91 OR #92 OR #93 OR #94 OR #95 OR #96 OR #97 OR #98 OR #99 OR #100 OR #101 OR #102

104   #73 AND #103

105   MeSH DESCRIPTOR patient education handout EXPLODE ALL TREES

106   MeSH DESCRIPTOR Pamphlets

107   (booklet* or leaflet* or pamphlet* or brochure* or handout* or hand-out*)

108   MeSH DESCRIPTOR Computers EXPLODE ALL TREES

109   MeSH DESCRIPTOR Computer Communication Networks EXPLODE ALL TREES

110   MeSH DESCRIPTOR Computer-Assisted Instruction

111   MeSH DESCRIPTOR User-Computer Interface EXPLODE ALL TREES

112   MeSH DESCRIPTOR Therapy, Computer-Assisted

113   MeSH DESCRIPTOR Cloud Computing

114   MeSH DESCRIPTOR Online Systems EXPLODE ALL TREES

115   MeSH DESCRIPTOR Mobile Applications

116   MeSH DESCRIPTOR Medical Informatics Applications

117   (online or web or internet or digital*):TI

118   (app or apps)

119   ((internet* or web or cloud* or digital* or online*) NEAR3 (base* or comput* or process* or stor* or system* or application* or intervention* or program* or therap* or forum* or tablet*))

120   ((laptop* or palm* or handheld* or tablet* or pda or pc) NEAR2 (comput*))

121   (email* or e-mail* or electronic mail*)

122   MeSH DESCRIPTOR Search Engine

123   (search* NEAR2 engine*)

124   MeSH DESCRIPTOR Telephone EXPLODE ALL TREES

125   MeSH DESCRIPTOR Hotlines

126   (telephon* or helpline* or help-line* or hotline* or hot-line* or cellphone* or texting* or phone or phones* or smartphone* or smartwatch*)

127   ((text* or audio* or multimedia* or multi-media* or intstant* or pictur*) NEAR2 (messag*))

128   (mobile health* or mhealth* or m-health* or ehealth* or e-health* or emental* or e-mental*)

129   ((mobile*) NEAR3 (base* or application* or intervention* or device* or technolog* or tablet*))

130   MeSH DESCRIPTOR Audiovisual Aids EXPLODE ALL TREES

131   (audiovisual* or audio-visual*)

132   (visual* NEAR2 aid*)

133   (radio or radios or television* or DVD* or blu-ray* or VHS* or video*)

134   MeSH DESCRIPTOR Communications Media EXPLODE ALL TREES

135   ((communication* or transmiss* or transmit* or social*) NEAR4 (media*))

136   (Facebook* or Twitter* or WhatsApp* or Snapchat* or Linkedin* or Instagram* or YouTube* or Wikipedia* or Reddit*)

137   (telecommunicat* or teleconference*)

138   ((tele*) NEAR2 (communicat* or conference*))

139   MeSH DESCRIPTOR Blogging

140   (blog* or vlog*)

141   #105 OR #106 OR #107 OR #108 OR #109 OR #110 OR #111 OR #112 OR #113 OR #114 OR #115 OR #116 OR #117 OR #118 OR #119 OR #120 OR #121 OR #122 OR #123 OR #124 OR #125 OR #126 OR #127 OR #128 OR #129 OR #130 OR #131 OR #132 OR #133 OR #134 OR #135 OR #136 OR #137 OR #138 OR #139 OR #140

142   #66 OR #104 OR #141

143   #55 AND #142

144   * IN DARE

145   #143 AND #144

50

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Virus terms

The following terms were combined as 'Not' with the other sections of the search strategy to remove any papers focused on viral illness.

The Medline virus terms are listed below. These were translated across all databases used in the search:

1   exp Virus Diseases/

2   exp Viruses/

3   (virus* or viral* or retrovir* or arbovir* or lentivir* or deltaretrovir* or adenovir*).tw.

4   HIV*.tw.

5   (cytomegalovir* or CMV*).tw.

6   herpes*.tw.

7   (papillomavir* or HPV*).tw.

8   ((hepatitis* or hepatitid*) adj2 (A or B or C or D or E)).tw.

9   (parechovir* or echovir*).tw.

10   (yellow* adj2 fever*).tw.

11   rhinovir*.tw.

12   (coronavir* or deltacoronavir*).tw.

13   rotavir*.tw.

14   (enterovir* or coxsackie*).tw.

15   exp Malaria/

16   (malaria* or paludism*).tw.

17   exp Syphilis/

18   (syphili* or neurosyphili* or neuro-syphili*).tw.

19   or/1-18

Health Economics literature search strategy

Sources searched to identify economic evaluations

- MEDLINE (Ovid)
- MEDLINE in Process (Ovid)
- Medline E-pubs (Ovid)
- Embase (Ovid)
- EconLit (Ovid)

A single search was performed to identify published economic evaluations of relevance to any of the questions in this guideline update in July 2019. Search filters to retrieve economic evaluations and quality of life papers were appended to the population and intervention terms to identify relevant evidence. Searches were not undertaken for qualitative RQs. Searches were re-run in July 2020 where the filters were added to the population terms.

Health economics search strategy

Database: Medline (Ovid)
1   exp Infant, Newborn/ (607120)
2   Term Birth/ (2958)
3   Infant Care/ (9209)
4   Perinatal Care/ (4613)
5   Intensive Care Units, Neonatal/ (14748)
6   Intensive Care, Neonatal/ (5673)
7   Infant Health/ (783)
8   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw. (394580)
9   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw. (50922)
10   or/1-9 (791905)
11   exp Bacterial Infections/ (886598)
12   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw. (148920)
13   exp Sepsis/ (123123)
14   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw. (100090)
15   (septic* adj4 shock*).tw. (19697)
16   (bacter?emia* or bacill?emia*).tw. (26877)
17   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw. (38725)
18   or/11-17 (1097119)
19   exp Streptococcus/ (78627)
20   exp Staphylococcus/ (104852)
21   (streptococc* or staphylococc*).tw. (206696)
22   (GBS or MRSA or NRCS-A or MSSA).tw. (27020)
23   (met?icillin-resistant adj3 aureus).tw. (23563)
24   exp Escherichia coli/ (278943)
25   (((Escheric* or E) adj2 coli) or ecoli*).tw. (289781)
26   exp Listeria/ (15143)
27   listeria*.tw. (18688)

28   exp Klebsiella/ (19836)

29   klebsiella*.tw. (26962)

30   exp Pseudomonas/ (71592)

31   (pseudomonas or chryseomonas or flavimonas).tw. (85911)

32   Enterobacteriaceae/ (18945)

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw. (30291)

34   ((enteric or coliform) adj2 bac*).tw. (5982)

35   exp Neisseria/ (20482)

36   neisseria*.tw. (18785)

37   exp Haemophilus influenzae/ (13731)

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw. (19500)

39   exp Serratia/ (6599)

40   serratia*.tw. (8439)

41   exp Cronobacter/ (655)

42   (cronobact* or sakazaki* or malonatic*).tw. (958)

43   exp Acinetobacter/ (9822)

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw. (15154)

45   exp Fusobacterium/ (3796)

46   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw. (5425)

47   exp Enterococcus/ (19718)

48   enterococc*.tw. (26150)

49   or/19-48 (765874)

50   18 or 49 (1614537)

51   10 and 50 (65444)

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw. (16079)

53   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw. (946)

54   52 or 53 (16770)

55   51 or 54 (74853)

56   Economics/ (27206)

57   exp "Costs and Cost Analysis"/ (237006)

58   Economics, Dental/ (1911)

59   exp Economics, Hospital/ (24558)

60   exp Economics, Medical/ (14206)

61   Economics, Nursing/ (3999)

62   Economics, Pharmaceutical/ (2941)

63   Budgets/ (11315)

64   exp Models, Economic/ (15053)

65   Markov Chains/ (14321)

66   Monte Carlo Method/ (28322)

67   Decision Trees/ (11133)

68   econom$.tw. (238765)

69   cba.tw. (9764)

70   cea.tw. (20532)

71   cua.tw. (999)

72   markov$.tw. (17997)

73   (monte adj carlo).tw. (29925)

74   (decision adj3 (tree$ or analys$)).tw. (13431)

75   (cost or costs or costing$ or costly or costed).tw. (460618)

76   (price$ or pricing$).tw. (33468)

77   budget$.tw. (23716)

78   expenditure$.tw. (49355)

79   (value adj3 (money or monetary)).tw. (2096)

80   (pharmacoeconomic$ or (pharmaco adj economic$)).tw. (3485)

81   or/56-80 (926379)

82   "Quality of Life"/ (194718)

83   quality of life.tw. (229884)

84   "Value of Life"/ (5706)

85   Quality-Adjusted Life Years/ (12284)

86   quality adjusted life.tw. (10842)

87   (qaly$ or qald$ or qale$ or qtime$).tw. (8901)

Neonatal infection: antibiotics for prevention and treatment evidence review for information and suppor
late-onset neonatal infection FINAL (April 2021)

88   disability adjusted life.tw. (2741)

89   daly$.tw. (2486)

90   Health Status Indicators/ (23409)

91   (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).tw. (22454)

92   (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw. (1323)

93   (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw. (4902)

94   (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw. (29)

95   (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw. (381)

96   (euroqol or euro qol or eq5d or eq 5d).tw. (9001)

97   (qol or hql or hqol or hrqol).tw. (44126)

98   (hye or hyes).tw. (60)

99   health$ year$ equivalent$.tw. (38)

100   utilit$.tw. (171457)

101   (hui or hui1 or hui2 or hui3).tw. (1304)

102   disutili$.tw. (396)

103   rosser.tw. (94)

104   quality of wellbeing.tw. (14)

105   quality of well-being.tw. (381)

106   qwb.tw. (190)

107   willingness to pay.tw. (4500)

108   standard gamble$.tw. (783)

109   time trade off.tw. (1037)

110   time tradeoff.tw. (238)

111   tto.tw. (899)

112   or/82-111 (493012)

113   81 or 112 (1350947)

114   55 and 113 (3480)

115   limit 114 to ed=20190716-20200724 (226)

116   animals/ not humans/ (4686781)

117   115 not 116 (213)

118   limit 117 to english language (208)

Database: MiP (Ovid)

1   exp Infant, Newborn/ (0)

2   Term Birth/ (0)

3   Infant Care/ (0)

4   Perinatal Care/ (0)

5   Intensive Care Units, Neonatal/ (0)

6   Intensive Care, Neonatal/ (0)

7   Infant Health/ (0)

8   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw. (32462)

9   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw. (4347)

10   or/1-9 (34405)

11   exp Bacterial Infections/ (0)

12   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw. (17517)

13   exp Sepsis/ (0)

14   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw. (12331)

15   (septic* adj4 shock*).tw. (2749)

16   (bacter?emia* or bacill?emia*).tw. (2792)

17   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw. (4519)

18   or/11-17 (35377)

19   exp Streptococcus/ (0)

20   exp Staphylococcus/ (0)

21   (streptococc* or staphylococc*).tw. (22112)

22   (GBS or MRSA or NRCS-A or MSSA).tw. (4384)

23   (met?icillin-resistant adj3 aureus).tw. (3264)

24   exp Escherichia coli/ (0)

25   (((Escheric* or E) adj2 coli) or ecoli*).tw. (21337)

26   exp Listeria/ (0)

27   listeria*.tw. (2351)

28   exp Klebsiella/ (0)

29   klebsiella*.tw. (4101)

30   exp Pseudomonas/ (0)

31   (pseudomonas or chryseomonas or flavimonas).tw. (10779)

32   Enterobacteriaceae/ (0)

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw. (4282)

34   ((enteric or coliform) adj2 bac*).tw. (585)

35   exp Neisseria/ (0)

36   neisseria*.tw. (1256)

37   exp Haemophilus influenzae/ (0)

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw. (1064)

39   exp Serratia/ (0)

40   serratia*.tw. (829)

41   exp Cronobacter/ (0)

42   (cronobact* or sakazaki* or malonatic*).tw. (168)

43   exp Acinetobacter/ (0)

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw. (2747)

45   exp Fusobacterium/ (0)

46   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw. (821)

47   exp Enterococcus/ (0)

48   enterococc*.tw. (3589)

49   or/19-48 (59520)

50   18 or 49 (83682)

51   10 and 50 (2543)

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw. (1246)

53   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw. (81)

54 52 or 53 (1309)

55 51 or 54 (3367)

56 Economics/ (0)

57 exp "Costs and Cost Analysis"/ (0)

58 Economics, Dental/ (0)

59 exp Economics, Hospital/ (0)

60 exp Economics, Medical/ (0)

61 Economics, Nursing/ (0)

62 Economics, Pharmaceutical/ (0)

63 Budgets/ (0)

64 exp Models, Economic/ (0)

65 Markov Chains/ (1)

66 Monte Carlo Method/ (2)

67 Decision Trees/ (0)

68 econom$.tw. (47080)

69 cba.tw. (456)

70 cea.tw. (2004)

71 cua.tw. (198)

72 markov$.tw. (5795)

73 (monte adj carlo).tw. (17215)

74 (decision adj3 (tree$ or analys$)).tw. (2609)

75 (cost or costs or costing$ or costly or costed).tw. (99726)

76 (price$ or pricing$).tw. (6047)

77 budget$.tw. (5074)

78 expenditure$.tw. (6509)

79 (value adj3 (money or monetary)).tw. (364)

80 (pharmacoeconomic$ or (pharmaco adj economic$)).tw. (502)

81 or/56-80 (172313)

82 "Quality of Life"/ (0)

83 quality of life.tw. (40043)

84 "Value of Life"/ (0)

85   Quality-Adjusted Life Years/ (0)

86   quality adjusted life.tw. (1728)

87   (qaly$ or qald$ or qale$ or qtime$).tw. (1455)

88   disability adjusted life.tw. (523)

89   daly$.tw. (479)

90   Health Status Indicators/ (0)

91   (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).tw. (2735)

92   (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw. (779)

93   (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw. (773)

94   (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw. (5)

95   (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw. (20)

96   (euroqol or euro qol or eq5d or eq 5d).tw. (1711)

97   (qol or hql or hqol or hrqol).tw. (7636)

98   (hye or hyes).tw. (8)

99   health$ year$ equivalent$.tw. (2)

100   utilit$.tw. (32031)

101   (hui or hui1 or hui2 or hui3).tw. (203)

102   disutili$.tw. (60)

103   rosser.tw. (4)

104   quality of wellbeing.tw. (9)

105   quality of well-being.tw. (29)

106   qwb.tw. (13)

107   willingness to pay.tw. (957)

108   standard gamble$.tw. (62)

109   time trade off.tw. (119)

110   time tradeoff.tw. (11)

111   tto.tw. (145)

112   or/82-111 (74419)

113	81 or 112 (236895)
114	55 and 113 (231)
115	limit 114 to dt=20190716-20200724 (89)
116	animals/ not humans/ (1)
117	115 not 116 (89)
118	limit 117 to english language (89)

Database: Medline E-pubs (Ovid)

1	exp Infant, Newborn/ (0)
2	Term Birth/ (0)
3	Infant Care/ (0)
4	Perinatal Care/ (0)
5	Intensive Care Units, Neonatal/ (0)
6	Intensive Care, Neonatal/ (0)
7	Infant Health/ (0)
8	(newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw. (6371)
9	((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw. (1421)
10	or/1-9 (6871)
11	exp Bacterial Infections/ (0)
12	((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw. (2219)
13	exp Sepsis/ (0)
14	(sepsis or septic?emia* or py?emia* or pyho?emia*).tw. (1706)
15	(septic* adj4 shock*).tw. (361)
16	(bacter?emia* or bacill?emia*).tw. (347)
17	(blood* adj4 (infect* or contamin* or invas* or invad*)).tw. (688)
18	or/11-17 (4700)
19	exp Streptococcus/ (0)
20	exp Staphylococcus/ (0)
21	(streptococc* or staphylococc*).tw. (2264)

22   (GBS or MRSA or NRCS-A or MSSA).tw. (468)

23   (met?icillin-resistant adj3 aureus).tw. (345)

24   exp Escherichia coli/ (0)

25   (((Escheric* or E) adj2 coli) or ecoli*).tw. (2275)

26   exp Listeria/ (0)

27   listeria*.tw. (198)

28   exp Klebsiella/ (0)

29   klebsiella*.tw. (476)

30   exp Pseudomonas/ (0)

31   (pseudomonas or chryseomonas or flavimonas).tw. (1004)

32   Enterobacteriaceae/ (0)

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw. (460)

34   ((enteric or coliform) adj2 bac*).tw. (64)

35   exp Neisseria/ (0)

36   neisseria*.tw. (177)

37   exp Haemophilus influenzae/ (0)

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw. (149)

39   exp Serratia/ (0)

40   serratia*.tw. (72)

41   exp Cronobacter/ (0)

42   (cronobact* or sakazaki* or malonatic*).tw. (14)

43   exp Acinetobacter/ (0)

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw. (290)

45   exp Fusobacterium/ (0)

46   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw. (112)

47   exp Enterococcus/ (0)

48   enterococc*.tw. (403)

49   or/19-48 (6238)

50   18 or 49 (9619)

51   10 and 50 (455)

Neonatal infection: antibiotics for prevention and treatment evidence review for information and suppor
late-onset neonatal infection FINAL (April 2021)

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw. (255)

53   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw. (16)

54   52 or 53 (268)

55   51 or 54 (651)

56   Economics/ (0)

57   exp "Costs and Cost Analysis"/ (0)

58   Economics, Dental/ (0)

59   exp Economics, Hospital/ (0)

60   exp Economics, Medical/ (0)

61   Economics, Nursing/ (0)

62   Economics, Pharmaceutical/ (0)

63   Budgets/ (0)

64   exp Models, Economic/ (0)

65   Markov Chains/ (0)

66   Monte Carlo Method/ (0)

67   Decision Trees/ (0)

68   econom$.tw. (6645)

69   cba.tw. (61)

70   cea.tw. (331)

71   cua.tw. (17)

72   markov$.tw. (718)

73   (monte adj carlo).tw. (1219)

74   (decision adj3 (tree$ or analys$)).tw. (519)

75   (cost or costs or costing$ or costly or costed).tw. (13246)

76   (price$ or pricing$).tw. (954)

77   budget$.tw. (555)

78   expenditure$.tw. (1143)

79   (value adj3 (money or monetary)).tw. (65)

80   (pharmacoeconomic$ or (pharmaco adj economic$)).tw. (51)

81   or/56-80 (21922)

82   "Quality of Life"/ (0)

83   quality of life.tw. (7520)

84   "Value of Life"/ (0)

85   Quality-Adjusted Life Years/ (0)

86   quality adjusted life.tw. (388)

87   (qaly$ or qald$ or qale$ or qtime$).tw. (329)

88   disability adjusted life.tw. (101)

89   daly$.tw. (88)

90   Health Status Indicators/ (0)

91   (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).tw. (479)

92   (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw. (50)

93   (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw. (180)

94   (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw. (1)

95   (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw. (4)

96   (euroqol or euro qol or eq5d or eq 5d).tw. (407)

97   (qol or hql or hqol or hrqol).tw. (1460)

98   (hye or hyes).tw. (1)

99   health$ year$ equivalent$.tw. (0)

100   utilit$.tw. (4989)

101   (hui or hui1 or hui2 or hui3).tw. (18)

102   disutili$.tw. (12)

103   rosser.tw. (0)

104   quality of wellbeing.tw. (0)

105   quality of well-being.tw. (9)

106   qwb.tw. (3)

107   willingness to pay.tw. (184)

108   standard gamble$.tw. (7)

109   time trade off.tw. (20)

110   time tradeoff.tw. (2)

111   tto.tw. (18)

112   or/82-111 (12826)

113   81 or 112 (32909)

114   55 and 113 (55)

115   limit 114 to english language (55)

Database: Embase (Ovid)

1   newborn/ (526097)

2   term birth/ (3569)

3   infant care/ (1049)

4   perinatal care/ (14198)

5   neonatal intensive care unit/ (10192)

6   newborn intensive care/ (26405)

7   child health/ (27137)

8   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw. (536460)

9   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw. (68782)

10   or/1-9 (841089)

11   exp bacterial infection/ (838120)

12   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw. (208658)

13   exp sepsis/ (263922)

14   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw. (168012)

15   (septic* adj4 shock*).tw. (36223)

16   (bacter?emia* or bacill?emia*).tw. (40194)

17   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw. (61015)

18   or/11-17 (1201558)

Neonatal infection: antibiotics for prevention and treatment evidence review for information and suppor
late-onset neonatal infection FINAL (April 2021)

19   exp Streptococcus/ (128274)

20   exp Staphylococcus/ (209430)

21   (streptococc* or staphylococc*).tw. (262126)

22   (GBS or MRSA or NRCS-A or MSSA).tw. (46092)

23   (met?icillin-resistant adj3 aureus).tw. (34157)

24   exp Escherichia coli/ (361361)

25   (((Escheric* or E) adj2 coli) or ecoli*).tw. (339772)

26   exp Listeria/ (24096)

27   listeria*.tw. (22102)

28   exp Klebsiella/ (59561)

29   klebsiella*.tw. (42289)

30   exp Pseudomonas/ (144052)

31   (pseudomonas or chryseomonas or flavimonas).tw. (118130)

32   Enterobacteriaceae/ (23812)

33   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw. (42447)

34   ((enteric or coliform) adj2 bac*).tw. (7285)

35   exp Neisseria/ (32218)

36   neisseria*.tw. (22936)

37   exp Haemophilus influenzae/ (29007)

38   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw. (24329)

39   exp Serratia/ (14280)

40   serratia*.tw. (10397)

41   exp cronobacter/ (817)

42   (cronobact* or sakazaki* or malonatic*).tw. (1214)

43   exp Acinetobacter/ (27955)

44   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw. (23888)

45   exp Fusobacterium/ (7678)

46   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw. (7403)

47   exp Enterococcus/ (49841)

48   enterococc*.tw. (37571)

49   or/19-48 (967441)

50   18 or 49 (1894492)

51   10 and 50 (70672)

52   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw. (21945)

53   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw. (1283)

54   52 or 53 (22885)

55   51 or 54 (83775)

56   exp Health Economics/ (845404)

57   exp "Health Care Cost"/ (290992)

58   exp Pharmacoeconomics/ (202216)

59   Monte Carlo Method/ (40279)

60   Decision Tree/ (13001)

61   econom$.tw. (368838)

62   cba.tw. (12788)

63   cea.tw. (34786)

64   cua.tw. (1498)

65   markov$.tw. (30389)

66   (monte adj carlo).tw. (48341)

67   (decision adj3 (tree$ or analys$)).tw. (23602)

68   (cost or costs or costing$ or costly or costed).tw. (772396)

69   (price$ or pricing$).tw. (57398)

70   budget$.tw. (38616)

71   expenditure$.tw. (74588)

72   (value adj3 (money or monetary)).tw. (3455)

73   (pharmacoeconomic$ or (pharmaco adj economic$)).tw. (8625)

74   or/56-73 (1760062)

75   "Quality of Life"/ (469927)

76   Quality Adjusted Life Year/ (26663)

77   Quality of Life Index/ (2774)

78   Short Form 36/ (29036)

79   Health Status/ (127411)

80   quality of life.tw. (439622)

81   quality adjusted life.tw. (19747)

82   (qaly$ or qald$ or qale$ or qtime$).tw. (20178)

83   disability adjusted life.tw. (4103)

84   daly$.tw. (4016)

85   (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).tw. (41434)

86   (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw. (2420)

87   (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw. (9462)

88   (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw. (61)

89   (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw. (455)

90   (euroqol or euro qol or eq5d or eq 5d).tw. (20619)

91   (qol or hql or hqol or hrqol).tw. (97056)

92   (hye or hyes).tw. (135)

93   health$ year$ equivalent$.tw. (41)

94   utilit$.tw. (289831)

95   (hui or hui1 or hui2 or hui3).tw. (2300)

96   disutili$.tw. (924)

97   rosser.tw. (124)

98   quality of wellbeing.tw. (42)

99   quality of well-being.tw. (486)

100   qwb.tw. (253)

101   willingness to pay.tw. (8837)

102   standard gamble$.tw. (1104)

103   time trade off.tw. (1708)

104   time tradeoff.tw. (291)

105   tto.tw. (1683)
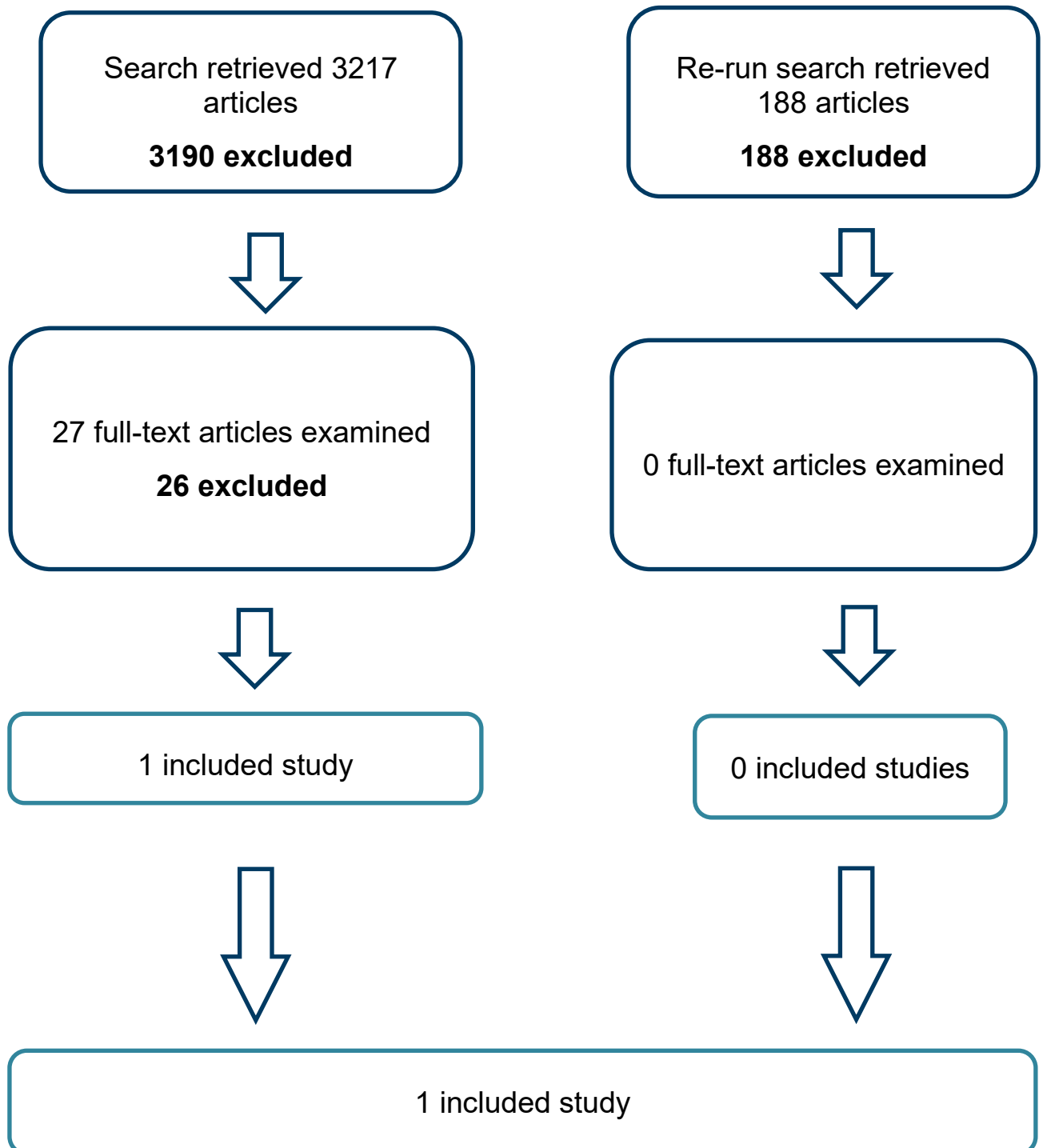
106   or/75-105 (989974)

107   74 or 106 (2593254)

108   55 and 107 (5731)

109   limit 108 to dc=20190716-20200724 (558)

110   nonhuman/ not human/ (4649157)

111   109 not 110 (522)

112   limit 111 to english language (510)

113   limit 112 to (conference abstract or conference paper or "conference review") (113)

114   112 not 113 (397)

Database: Econlit (Ovid)

1   (newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*).tw. (732)

2   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring)).tw. (45)

3   1 or 2 (767)

4   ((bacter* or strep* or staph* or GNB) adj4 (infect* or diseas* or contaminat* or mening* or pneumon* or nosocomial*)).tw. (49)

5   (sepsis or septic?emia* or py?emia* or pyho?emia*).tw. (17)

6   (septic* adj4 shock*).tw. (1)

7   (bacter?emia* or bacill?emia*).tw. (3)

8   (blood* adj4 (infect* or contamin* or invas* or invad*)).tw. (17)

9   (streptococc* or staphylococc*).tw. (18)

10   (GBS or MRSA or NRCS-A or MSSA).tw. (40)

11   (met?icillin-resistant adj3 aureus).tw. (8)

12   (((Escheric* or E) adj2 coli) or ecoli*).tw. (47)

13   listeria*.tw. (6)

14   klebsiella*.tw. (0)

15   (pseudomonas or chryseomonas or flavimonas).tw. (6)

16   (enterobact* or sodalis or paracolobactrum or ewingella or leclercia).tw. (1)

17   ((enteric or coliform) adj2 bac*).tw. (0)

18   neisseria*.tw. (1)

19   ((h?emophil* or H or bacter* or bacill* or mycobacter* or coccobac*) adj2 (influenz* or pfeiffer* or meningitidis)).tw. (14)

20   serratia*.tw. (0)

21   (cronobact* or sakazaki* or malonatic*).tw. (1)

22   (acinetobact* or herellea* or mima or baumanni* or genomosp* or calcoacetic*).tw. (2)

23   (fusobact* or sphaerophor* or necrophorum or nucleatum).tw. (0)

24   enterococc*.tw. (5)

25   or/4-24 (194)

26   ((newborn* or new born* or neonat* or neo-nat* or perinat* or peri-nat*) adj4 infect*).tw. (11)

27   ((premature* or pre-mature* or preterm* or pre-term*) adj4 (child* or infant* or baby* or babies* or offspring) adj4 infect*).tw. (1)

28   26 or 27 (12)

29   25 or 28 (205)

30   3 and 29 (15)

31   limit 30 to yr="2019 -Current" (1)

Appendix C –Qualitative evidence study selection

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┌─────────────────────────┐        ┌─────────────────────────┐
│  Search retrieved 3217  │        │  Re-run search retrieved│
│        articles         │        │       188 articles      │
│                         │        │                         │
│     3190 excluded       │        │      188 excluded       │
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            │                                  │
            ▼                                  ▼
┌─────────────────────────┐        ┌─────────────────────────┐
│                         │        │                         │
│ 27 full-text articles   │        │ 0 full-text articles    │
│       examined          │        │       examined          │
│                         │        │                         │
│     26 excluded         │        │                         │
└─────────────────────────┘        └─────────────────────────┘
            │                                  │
            ▼                                  ▼
┌─────────────────────────┐        ┌─────────────────────────┐
│    1 included study     │        │   0 included studies    │
└─────────────────────────┘        └─────────────────────────┘
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            ▼                                  ▼
┌─────────────────────────────────────────────────────────────┐
│                     1 included study                         │
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Appendix D –Qualitative evidence

De, 2014

Bibliographic Reference	De, Sukanya; Tong, Allison; Isaacs, David; Craig, Jonathan C; Parental perspectives on evaluation and management of fever in young infants: an interview study.; Archives of disease in childhood; 2014; vol. 99 (no. 8); 717-23

Study Characteristics

Study type	Semi structured interviews
Aim of study	Explore the concerns, beliefs, attitudes and perspectives of parents of young infants hospitalised with a febrile illness
Study location	Australia
Study setting	Tertiary children's hospital
Study methods	Used the consolidated criteria for reporting qualitative research (COREQ). Participants selected using purposive sampling to include a range of demographic characteristics such as age, gender and birth order. Eligible parents identified by reviewing daily hospital admissions and were approached towards the end of the hospital stay. Interview prompts were developed based on clinical experience, literature review, feedback from paediatricians and researchers, and were piloted with five parents. Semi-structured, face-to-face interviews were conducted just prior to discharge from hospital, to enable a clear parental recollection of events and experiences while capturing the complete inpatient experience. The interviews were conducted in the privacy of a meeting room located in the ward. If both parents participated, they were interviewed together.
Population	Parents of febrile infants aged <3 months admitted to hospital
Study dates	November 2011 - December 2012
Sources of funding	None reported
Inclusion Criteria	Parents of febrile infants aged <3 months admitted to hospital Parents of infants who were previously healthy Infants with uncomplicated febrile illness - with an unremarkable clinical course and uneventful recovery
Exclusion criteria	Parents of infants with a complex medical background Parents of premature infants Parents of infants with prolonged hospitalisation and complex interventions Non-English speaking parents

Sample characteristics	**Sample size** 36 parents of 27 infants **Reason for stopping recruitment** Once data saturation was reached **Parent's age** 21-30: 38%; 31-40: 56%; 40+: 6% **Parents % female** 39% **Age of the baby** <4 weeks: 33%; 4-8 weeks: 52%; 8-12 weeks: 15% **Duration of admission (days)** 2-3: 52%; 3-5: 41%; 5+: 7%
Relevant themes	Reassurance and support Facilitators to parental empowerment Barriers to parental empowerment

Risk of bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes *(Explore the concerns, beliefs, attitudes and perspectives of parents of young infants hospitalised with a febrile illness)*
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(Purposive sampling to include a range of demographic characteristics such as age, gender and birth order)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Limited - stated that the interviews were conducted by the first author who was a paediatrician not involved in the family's care but no further information)*
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Limited information. States that the analysis was conducted using grounded theory principles and*

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Section	Question	Answer
		that the data were coded but limited information about triangulation or validation)
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Moderate *(Limited information about analysis, including triangulation and validation. No acknowledgement of the relationships between researchers and participants)*
	Relevance	Partially relevant *(Focused on parents with febrile infants rather than specifically late-onset infection. Excluded premature infants who may be at higher risk of developing infection)*

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late-onset neonatal infection FINAL (April 2021)

Appendix E   –GRADE-CERQual tables

Theme	Illustrative quotes	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Parent or carer anxiety Parents were concerned about whether they had missed potential warning signs of serious illness in their baby. They also had concerns about not knowing what procedures would be happening in the hospital or understanding what is involved in those procedures Reassurance that they had done the right thing by taking their baby to the hospital helped to reduce anxiety.	*"Babies can deteriorate so quickly. As a first-time parent you don't know much, being advised, told what to do is quite important."* *"We were in Emergency and wondering whether we were being overprotective parents and one of the doctors said, 'you did the right thing'.* *We were relieved."* *"It was about 40 minutes before we got spoken to or even told well this is what is going to happen. That was the only thing I was a little bit upset about. I never mind waiting. I just wanted to know whether I could wrap him up and put him to sleep or whether he had to be left unwrapped to be assessed and probably for me it was racing through my head and the big thing was*	**Serious**[1]	**Not serious**[2]	**Serious**[3]	**Serious**[4]	**Very low**

Theme	Illustrative quotes	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
	fever we have been admitted what is going on what is it they were thinking."					
Explanation of procedures Parents stated that a clear explanation of what happens in a medical procedure is important, particularly in relation to lumbar punctures. The use of medical terms rather than simple terminology can make it harder to understand either the diagnosis or the tests that are being carried out.	*"I did not know what they were talking about. They were talking their own language, like jargons, they said it is a UTI and I was like, 'what is that?' That's when I looked on the internet did some research of my own."* *"It's hard to take all the information in and the wording is important— when they talked about the lumbar puncture that they needed to take the fluid from around the baby's brain we imagined the needle going into the head, I was standing, I felt my head spin and had to hold on to something."*	**Serious**[1] One study at moderate risk of bias *(Limited information about analysis, including triangulation and validation. No acknowledgement of the relationships between researchers and participants)*	**Not serious**[2]	**Serious**[3]	**Serious**[4]	**Very low**

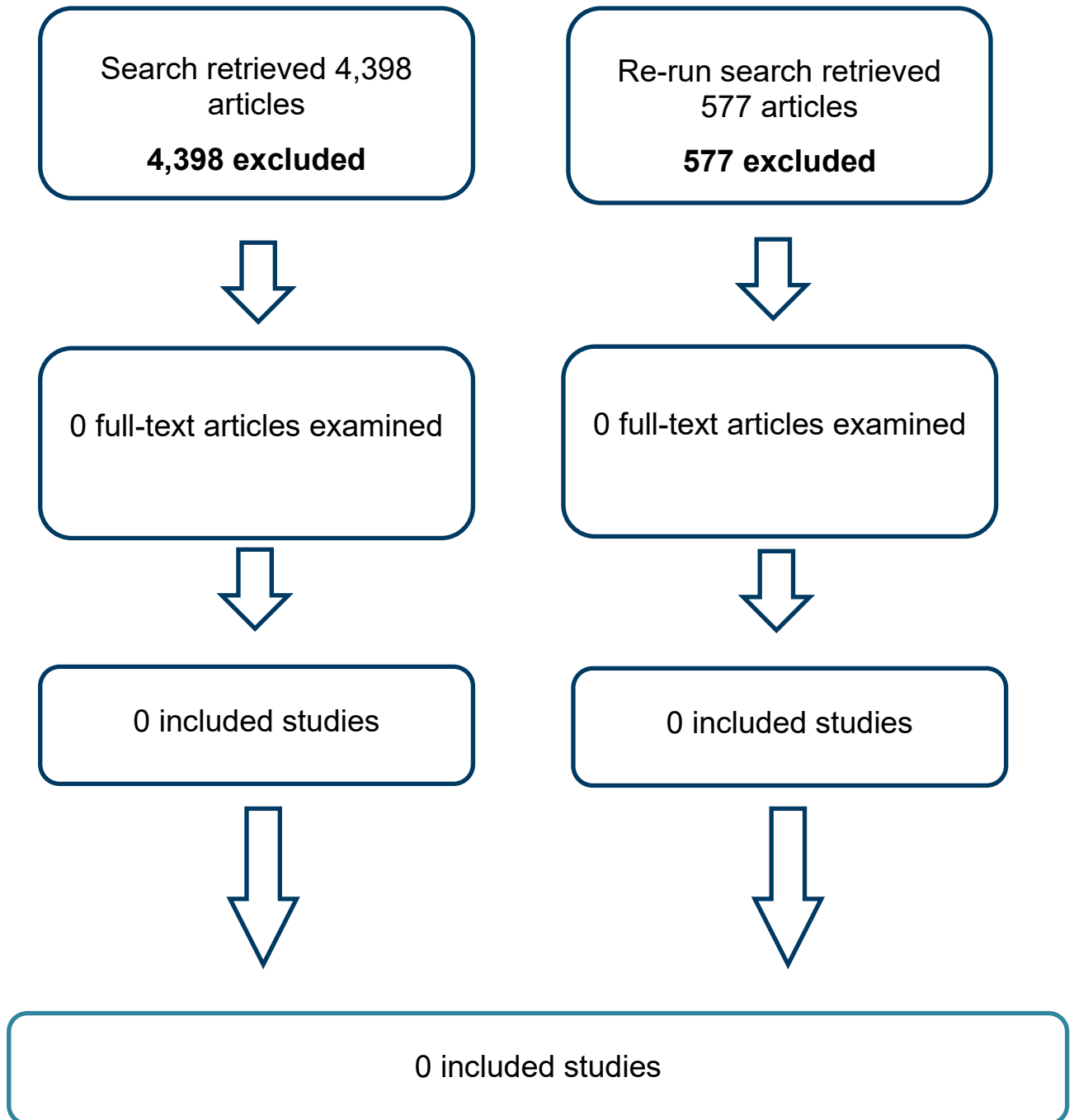| Theme	Illustrative quotes	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
	"The doctor that saw us in emergency was brilliant. She drew a diagram of the lumbar puncture, explained what was going to happen, the risks associated with it, I was told what may happen if he didn't have it so I think I was quite pleased with the information." The turning point was when the registrar came in and said they were going to do the lumbar puncture and he sat down and went over everything step by step from the start of the day up until then, what had happened—that was the turning point."					

Theme	Illustrative quotes	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
	The manner of the doctor in emergency was excellent. He very clearly explained so we knew exactly what was going to happen, that our baby would go through a number of tests, and some would be hard to watch but he was gentle, kind. That in many ways was the key. If you get the explanation first and someone takes the time to sit to tell you what is happening, you are prepared to go through a whole lot of things because you have been warned."					
Decision making and parental or carer involvement Parents valued having a clear explanation of the management plan. Some were either unaware that they had the right to say no to a treatment or didn't feel that this was really an option.	*"It was scary because they explained the risks and they said it was up to me but really there was no choice."* *"The next day I was told you have the right to say no, I didn't know that. You feel a little bit like you are at the mercy of say the nurses or the doctor no one said if you*	**Serious**[1]	**Not serious**[2]	**Serious**[3]	**Serious**[4]	**Very low**

Theme	Illustrative quotes	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
	are really uncomfortable with this we can stop." *"When you are sleep deprived, when you are concerned, [and] when you are worried sick and things happen so quick, your head seems to go blank. I was in so much shock I couldn't come up with any question."*					
Format of information Parents indicated that fact sheets would be a helpful way to explain what was happening.	*"Fact sheets would be really good. It is hard to ask questions when the doctors are rushing in and out. By the time they are back you forget what you were about to ask."*	**Serious[1]**	**Not serious[2]**	**Serious[3]**	**Serious[4]**	**Very low**

1. One study at moderate risk of bias (De 2014 - limited information about analysis, including triangulation and validation. No acknowledgement of the relationships between researchers and participants)
2. One study where the themes support the patterns found in the data
3. Results are based on a single study with 36 parents
4. Evidence from a single study. Parents of preterm babies were excluded

Appendix F   – Economic evidence study selection

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┌─────────────────────────┐        ┌─────────────────────────┐
│  Search retrieved 4,398 │        │  Re-run search retrieved│
│         articles        │        │      577 articles       │
│                         │        │                         │
│     4,398 excluded      │        │      577 excluded       │
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┌─────────────────────────┐        ┌─────────────────────────┐
│                         │        │                         │
│ 0 full-text articles    │        │ 0 full-text articles    │
│      examined           │        │      examined           │
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│   0 included studies    │        │   0 included studies    │
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│                   0 included studies                      │
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Appendix G   – Economic evidence tables

No economic evidence is available as none of the studies in the economic search results were found to be relevant.

Appendix H – Health economic model

This question was not prioritised for original economic analysis.

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Appendix I — Excluded studies

Study	Code [Reason]
Aronson, Paul L and Fraenkel, Liana (2017) Is Shared Decision-making the Right Approach for Febrile Infants?. Pediatrics 140(3)	- Review article but not a systematic review
Brar, Simrit, Tang, Selphee, Drummond, Neil et al. (2009) Perinatal care for South Asian immigrant women and women born in Canada: telephone survey of users. Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC 31(8): 708-716	- Study does not report any of the factors of interest specified in the protocol *[Qualitative research of experiences of pregnant women but not in relation to infection]*
Burton, Tracy, Saini, Shivani, Maldonado, Luis et al. (2018) Parental Refusal for Treatments, Procedures, and Vaccines in the Newborn Nursery. Advances in pediatrics 65(1): 89-104	- Review article but not a systematic review
Byrne, Paul A; Miller, Carol; Justus, Kathy (2006) Neonatal group B streptococcal infection related to breast milk. Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine 1(4): 263-70	- Not a relevant study design *[Individual patient case study]*
Cho, J.-Y., Lee, J., Young, A. et al. (2012) Parental concerns about their premature infants' health after discharge from the neonatal intensive care unit: A questionnaire survey for anticipated guidance in a neonatal follow-up clinic. Korean Journal of Pediatrics 55(8): 272-279	- Study does not include population of interest *[Babies and young children up to 24 months. Results not reported separately]*
Cleveland, Lisa M, Carmona, Elenice Valentim, Paper, Bruce et al. (2015) Baby Boy Jones Interactive Case-Based Learning Activity: A Web-Delivered Teaching Strategy. Nurse educator 40(4): 179-82	- Study does not report any of the factors of interest specified in the protocol *[Strategy to help nurses identify neonates at risk of infection]*
Crocetti, M; Moghbeli, N; Serwint, J (2001) Fever phobia revisited: have parental misconceptions about fever changed in 20 years?. Pediatrics 107(6): 1241-6	- Study does not report any of the factors of interest specified in the protocol *[Children with fever. Most of the parents had children aged 3 months and over]*
Darbyshire, Philip, Collins, Carmel, McDonald, Helen M et al. (2003) Taking antenatal group B Streptococcus seriously: women's experiences of screening and perceptions of risk. Birth (Berkeley, Calif.) 30(2): 116-23	- Study does not contain outcomes of interest *[Women's knowledge of GBS]*

Study	Code [Reason]
de Salaberry, J., Hait, V., Thornton, K. et al. (2019) Journey to mother baby care: Implementation of a combined care/couplet model in a Level 2 neonatal intensive care unit. Birth Defects Research 111(15): 1060-1072	- Not a relevant study design *[Report of a change in care model]*
Frederiksen, M C (2008) A needed information source. Clinical pharmacology and therapeutics 83(1): 22-3	- Not a relevant study design *[Article commentary]*
Kafatos, A G, Tsitoura, S, Pantelakis, S N et al. (1991) Maternal and infant health education in a rural Greek community. Hygie 10(1): 32-7	- Full text paper not available
Karimi, Mehran, Eslami, Zia, Shamsi, Farimah et al. (2012) The effect of educational intervention on decreasing mothers' expressed breast milk bacterial contamination whose infants are admitted to neonatal intensive care unit. Journal of research in health sciences 13(1): 43-7	- Not a relevant study design *[Before and after quantitative study]*
Lassi, Zohra S and Bhutta, Zulfiqar A (2015) Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes. The Cochrane database of systematic reviews: cd007754	- Not a relevant study design *[Systematic review of RCTs]*
McQuaid, Fiona, Pask, Sophie, Locock, Louise et al. (2016) Attitudes towards antenatal vaccination, Group B streptococcus and participation in clinical trials: Insights from focus groups and interviews of parents and healthcare professionals. Vaccine 34(34): 4056-61	- Study does not report any of the factors of interest specified in the protocol *[Opinions of a GBS vaccine]*
Murry, Kathy (2002) Facing the challenge of group B strep. Midwifery today with international midwife: 38-41	- Full text paper not available
Pearce, Rebecca and Baardsnes, Jason (2012) Term MRI for small preterm babies: do parents really want to know and why has nobody asked them?. Acta paediatrica (Oslo, Norway : 1992) 101(10): 1013-5	- Not a relevant study design *[Article correspondence]*
Plumb, Jane and Holwell, Dawn (2004) Group B strep: prevention is better than cure. The practising midwife 7(3): 17-21	- Review article but not a systematic review

Study	Code [Reason]
Rubarth, Lori Baas (2003) The lived experience of nurses caring for newborns with sepsis. Journal of obstetric, gynecologic, and neonatal nursing : JOGNN 32(3): 348-56	- Study does not report any of the factors of interest specified in the protocol *[Nurses experiences of caring for babies with sepsis]*
Saranya, G. (2017) E-health assistance for antenatal care. Research Journal of Pharmacy and Technology 10(8): 2561-2563	- Not a relevant study design *[Description of eHealth system]*
Sasidharan, C K, Gokul, E, Anoop, P et al. (2005) Benefits of maternal participation in newborn nurseries. Indian journal of pediatrics 72(10): 829-33	- Based in a non-OECD country
Starlander, G.; Lytsy, B.; Melhus, A. (2010) Lack of hygiene routines among patients and family members at patient hotels - A possible route for transmitting puerperal fever. Scandinavian Journal of Infectious Diseases 42(67): 554-556	- Not a relevant study design *[Individual case studies]*
Steinhorn, R.H. and deRegnier, R.-A. (2016) After the NICU: helping parents achieve the best outcomes. Journal of Pediatrics 176: 1-4	- Not a relevant study design *[Article summary]*
The Lancet Child & Adolescent, Health (2019) Putting the family at the centre of newborn health. The Lancet Child and Adolescent Health 3(1): 1	- Not a relevant study design *[Article commentary]*
Vohr, B.R. (2019) The importance of parent presence and involvement in the single-family room and open-bay NICU. Acta Paediatrica, International Journal of Paediatrics 108(6): 986-988	- Not a relevant study design *[Editorial]*
Weiss, Deborah, Dunn, Sandra I, Sprague, Ann E et al. (2018) Effect of a population-level performance dashboard intervention on maternal-newborn outcomes: an interrupted time series study. BMJ quality & safety 27(6): 425-436	- Not a relevant study design *[Interrupted time series evaluating maternal dashboard intervention]*
Westrup, B., Stjernqvist, K., Kleberg, A. et al. (2002) Neonatal individualized care in practice: A Swedish experience. Seminars in Neonatology 7(6): 447-457	- Not a relevant study design *[Report of Swedish care model]*