

## Intrapartum care for women with existing medical conditions or obstetric complications and their babies

[R] Evidence review for no antenatal care

*NICE guideline <TBC at publication>*

*Evidence reviews for women at high risk of adverse outcomes for themselves and/or their baby because of obstetric complications or other reasons*

*September 2018*

*Draft for consultation*

*Developed by the National Guideline Alliance hosted by the Royal College of Obstetricians and Gynaecologists*



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ISBN:



# Contents

<b>Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....</b>	<b>7</b>
Review question .....	7
Introduction .....	7
Summary of the protocol .....	7
Clinical evidence .....	9
Summary of clinical studies included in the evidence review .....	9
Quality assessment of clinical studies included in the evidence review .....	9
Economic evidence .....	9
Summary of studies included in the economic evidence review.....	10
Economic model.....	11
Evidence statements .....	11
Recommendations .....	12
Rationale and impact.....	13
The committee’s discussion of the evidence.....	14
<b>References.....</b>	<b>19</b>
<b>Appendices.....</b>	<b>20</b>
Appendix A – Review protocol.....	20
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	20
Appendix B – Literature search strategies .....	26
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	26
Appendix C – Clinical evidence study selection .....	50
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	50
Appendix D – Excluded studies .....	50
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	50
Clinical studies .....	50
Economic studies .....	53
Appendix E – Clinical evidence tables .....	53
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	53
Appendix F – Forest plots.....	53
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	53
Appendix G – GRADE tables.....	54
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	54

Appendix H – Economic evidence study selection.....	54
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	54
Appendix I – Economic evidence tables .....	54
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	54
Appendix J – Health economic evidence profiles.....	54
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	54
Appendix K – Health economic analysis .....	54
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	54
Appendix L – Research recommendations .....	54
Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour .....	54

# 1 Intrapartum care for women who 2 present in labour having had no 3 antenatal care – risk assessment and 4 management of labour

## Review question

- 6 What are the most appropriate systems for risk assessment and management of  
7 labour for women who present in labour having had no antenatal care?

## Introduction

- 9 The aim of this review is to determine the most appropriate systems for risk  
10 assessment and management of labour for women who present in labour having had  
11 no antenatal care. The NICE guideline on [pregnancy and complex social factors](#)  
12 (CG110) identifies groups of women who may not make full use of antenatal care;  
13 these include pregnant women who are recent migrants, asylum seekers or refugees,  
14 or who have difficulty reading or speaking English.

## 1 Summary of the protocol

- 16 See Table 1 for a summary of the population, intervention, comparison and outcome  
17 (PICO) characteristics of this review.

### 18 Table 1: Summary of the protocol (PICO table)

<b>Population</b>	Women who present in labour having had no antenatal care
<b>Intervention</b>	<p><u>Intervention 1</u> Any assessment or management protocols, tools or scoring systems for women with no antenatal care for use at the onset of labour</p> <p><u>Intervention 2</u> One or more of the following recorded assessments performed during labour and birth in addition to usual intrapartum care (see comparison section for definition of usual care):</p> <ul style="list-style-type: none"> <li>• clinical history <ul style="list-style-type: none"> <li>○ woman's age</li> <li>○ gestational age</li> <li>○ pre-existing medical, surgical and gynaecological conditions or history of medical conditions</li> <li>○ substance misuse</li> <li>○ obstetric history</li> <li>○ family history</li> <li>○ mental health</li> <li>○ FGM</li> <li>○ concealed pregnancy</li> </ul> </li> <li>• physical examination <ul style="list-style-type: none"> <li>○ needle marks</li> <li>○ evidence of abuse or trauma</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ FGM</li> <li>● tests <ul style="list-style-type: none"> <li>○ blood tests (HIV, hepatitis, blood group, full blood count, blood glucose, or blood group antibodies)</li> <li>○ swabs (for example, if chlamydia is suspected)</li> <li>○ urine tests (drug use, infection, protein, or glucose)</li> <li>○ ultrasound scan for number of babies, placental site, presentation, estimated gestation and fetal weight, and viability</li> </ul> </li> <li>● current pregnancy <ul style="list-style-type: none"> <li>○ fetal growth/size</li> <li>○ placental site</li> </ul> </li> <li>● other <ul style="list-style-type: none"> <li>○ assessment of language</li> <li>○ socio-economic status</li> <li>○ learning needs</li> <li>○ domestic abuse</li> <li>○ birth environment</li> <li>○ mental capacity</li> </ul> </li> </ul> <p><u>Intervention 3</u> Risk assessment and management by an MDT (including multiple professionals such as a midwife, consultant obstetrician, anaesthetist, social worker, neonatal team for assessment, translator if needed, and possibly psychiatrist)</p> <p><u>Intervention 4</u> Cardiotocography (CTG) applied because the woman has received no antenatal care rather than because of risk factors outlined in the NICE guideline on <a href="#">intrapartum care for healthy women and babies</a> (CG190):</p> <ul style="list-style-type: none"> <li>● on admission</li> <li>● during established labour</li> </ul>
<b>Comparison</b>	<p><u>Comparison 1</u> Usual care, that is assessment or management protocols, tools or scoring systems as per women with antenatal care, such as recommendations in the NICE guideline on <a href="#">intrapartum care for healthy women and babies</a> (CG190) or modified early obstetric warning score (MEOWS)</p> <p><u>Comparison 2</u> Usual care as per women with antenatal care: initial assessment recommendations in the NICE guideline on <a href="#">intrapartum care for healthy women and babies</a> (CG190), excluding the recommendation about reviewing antenatal notes</p> <p><u>Comparison 3</u> Usual care, for example assessment and management by a midwife without the support of the MDT</p> <p><u>Comparison 4</u></p> <ul style="list-style-type: none"> <li>● Intermittent auscultation (IA): <ul style="list-style-type: none"> <li>○ on admission</li> <li>○ during established labour</li> </ul> </li> </ul>
<b>Outcome</b>	For the woman:



	<ul style="list-style-type: none"><li>• mortality</li><li>• morbidities</li><li>• mode of birth</li><li>• woman's experience of labour and birth, including experience of the birth companion, separation of the woman and baby and breastfeeding initiation</li><li>• admission to HDU or ITU and duration of hospital stay</li></ul> <p>For the baby:</p> <ul style="list-style-type: none"><li>• mortality</li><li>• morbidities<ul style="list-style-type: none"><li>○ any morbidities for comparisons 1, 2 and 3</li><li>○ for comparison 4 (CTG versus IA), major neonatal morbidity could include hypoxic ischaemic encephalopathy (HIE), cerebral palsy, neurodevelopmental disability, developmental delay, or neonatal seizures</li><li>○ for comparison 4 (CTG versus IA), cord blood gas values at birth (arterial or venous pH &lt;7.10)</li></ul></li></ul>
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- 1 CTG: cardiotocography; FGM: female genital mutilation; HIE: hypoxic ischaemic encephalopathy; HIV:  
2 human immunodeficiency virus; IA: intermittent auscultation; MDT: multidisciplinary team

- 3 For further details see the full review protocol in Appendix A – Review protocol. The  
4 search strategies are presented in Appendix B – Literature search strategies.

## Clinical evidence

### Included studies

- 7 No clinical evidence was identified for this review.  
8 See the study selection flow chart in Appendix C – Clinical evidence study selection.

### Excluded studies

- 10 Studies not included in this review with reasons for their exclusion are listed in  
11 Appendix D – Excluded studies.

### Summary of clinical studies included in the evidence review

- 13 No clinical evidence was identified for this review (and so there are no evidence  
14 tables in Appendix E – Clinical evidence tables). No meta-analysis was undertaken  
15 for this review (and so there are no forest plots in Appendix F – Forest plots).

### Quality assessment of clinical studies included in the evidence review

- 17 No clinical evidence was identified for this review (and so no quality assessment was  
18 undertaken and there are no GRADE tables in Appendix G – GRADE tables).

## Economic evidence

### Included studies

- 21 Three cost effectiveness analyses were included in this review (see 'Summary of  
22 studies included in the economic evidence review').

- 1 All the analyses (Grobman 1999, Mrus 2004, Stringer 1999) evaluated rapid HIV
- 2 testing for women who presented in labour having had no antenatal care.
- 3 See also the study selection flow chart in Supplement 2 (Health economics).

### Excluded studies

- 5 Studies not included in this review with reasons for their exclusion are listed in
- 6 Supplement 2 (Health economics).

### Summary of studies included in the economic evidence review

- 8 Table 2 provides a brief summary of the included studies.

#### 9 Table 2: Summary of included studies (economic evidence)

Study	Population	Intervention/Comparison	Perspective and cost year	Comments
Grobman 1999 Cost effectiveness analysis using decision analytic modelling USA	Women without adequate antenatal care	Rapid HIV testing in the intrapartum period versus no HIV testing.  Women would receive counselling before testing as part of the rapid HIV testing intervention and antiretroviral treatment for those who tested positive	Healthcare payer 1997 prices	Base-case analysis assumed an HIV seroprevalence of 1.5%  Univariate sensitivity analysis performed to explore the effect of altering HIV seroprevalence
Mrus 2004 Cost effectiveness analysis using decision analytic modelling USA	Women in labour with no antenatal care	Rapid HIV testing followed by antiretroviral treatment for women who tested positive	Societal perspective 2000 prices	Base-case analysis assumed an HIV seroprevalence of 0.51%  Univariate sensitivity analysis performed to explore the effect of altering HIV seroprevalence  Further analyses performed to explore the comparative cost effectiveness

Study	Population	Intervention/Comparison	Perspective and cost year	Comments
				of different antiretroviral treatments
Stringer 1999 Cost effectiveness analysis using decision analytic modelling USA	Unregistered women presenting in labour with no antenatal care	Rapid HIV testing followed by antiretroviral treatment for women who tested positive versus prophylactic treatment for all women versus no treatment (usual care for women with unknown HIV status)	Healthcare system and third-party payer perspective  1998 prices	Base-case analysis assumed an HIV seroprevalence of 5%  Univariate sensitivity analysis performed to explore the effect of altering HIV seroprevalence

- 1 See also the narrative review, economic evidence tables, results of quality
- 2 assessment and health economic evidence profiles in Supplement 2 (Health
- 3 economics).

### Economic model

- 5 No economic modelling was undertaken for this review because the committee
- 6 agreed that other topics were higher priorities for economic evaluation (see
- 7 Supplement 2 (Health economics)).

### Evidence statements

#### 9 Clinical evidence

- 10 No clinical evidence was identified for this review.

#### 11 Health economic evidence

- 12 One cost effectiveness analysis undertaken in a US setting found voluntary rapid HIV
- 13 testing in labour followed by treatment of seropositive women dominated no testing,
- 14 with 68 cases of paediatric HIV infection averted per 100,000 women presenting in
- 15 labour with no antenatal care, and a saving of \$6 million. This analysis is partially
- 16 applicable to the NICE decision-making context and is characterised by potentially
- 17 serious limitations.

- 18 Another cost effectiveness analysis undertaken in a US setting found rapid HIV
- 19 testing followed by treatment of seropositives dominated no testing, with 27 cases of
- 20 paediatric HIV infection averted per 50,000 women presenting in labour with no
- 21 antenatal care, and a societal saving of £3 million. This analysis is partially applicable
- 22 to the NICE decision-making context and is characterised by potentially serious
- 23 limitations.

- 24 A third cost effectiveness analysis undertaken in a US setting found rapid HIV testing
- 25 in labour followed by treatment of seropositive women dominated no testing, with 183

1 cases of paediatric HIV infection averted per 100,00 women with no antenatal care  
2 and a saving to the healthcare system of \$10.6 million. This analysis is partially  
3 applicable to the NICE decision-making context and is characterised by potentially  
4 serious limitations. The same cost effectiveness analysis found prophylactic  
5 antiretroviral treatment of all women in labour presenting with no antenatal care,  
6 compared with rapid HIV testing in labour followed by treatment of seropositive  
7 women, cost \$342,068 per additional paediatric HIV infection averted. This analysis  
8 is partially applicable to the NICE decision-making context and is characterised by  
9 potentially serious limitations.

## 1Recommendations

11 R1. For women who have had no antenatal care, be aware of the particular  
12 importance of following the recommendations on establishing rapport and treating  
13 with respect in the NICE guideline on [intrapartum care for healthy women and](#)  
14 [babies](#).

15 R2. Provide obstetric-led intrapartum care for women who have had no antenatal  
16 care, and alert the neonatal team and, if relevant, the anaesthetic team.

17 R3. For a woman with no antenatal care who has difficulty understanding, speaking  
18 and reading English, provide an interpreter (who may be a link worker or advocate  
19 and should not be a member of her family, her legal guardian or her partner), who  
20 can communicate with her in her preferred language. [This recommendation is  
21 adapted from the NICE guideline on [pregnancy and complex social factors](#)].

22 R4. If possible, take a full medical, psychological and social history from women who  
23 have had no antenatal care.

- 24 • Try to find out why there has been no care during pregnancy.
- 25 • Ask the woman who, if anyone, she would like to support her as her birth  
26 companion(s) during labour.
- 27 • Explore sensitively any possible vulnerability or safeguarding concerns, including:
- 28 ○ young maternal age
- 29 ○ maternal mental health
- 30 ○ maternal learning disability
- 31 ○ maternal substance misuse
- 32 ○ domestic or sexual abuse
- 33 ○ homelessness
- 34 ○ human trafficking
- 35 ○ female genital mutilation
- 36 ○ the woman or family members being known to children's services.

37 R5. Carry out an obstetric and general medical examination of a woman with no  
38 antenatal care as soon as she presents.

39 R6. Carry out an assessment of the unborn baby, including ultrasound if possible, to  
40 determine:

- 41 • viability
- 42 • the presentation
- 43 • the possibility of multiple pregnancy
- 44 • the placental site.

- 1 R7. Offer women who have had no antenatal care, tests for:
  - 2 • full blood count for anaemia
  - 3 • blood group and rhesus D status
  - 4 • atypical red cell alloantibodies.
  - 5 • random blood glucose
  - 6 • asymptomatic bacteriuria.
- 7 R8. Offer rapid HIV testing to women thought to be at high risk of infection, which
- 8 might include:
  - 9 • recent migrants from countries with high rates of HIV infection
  - 10 • women who misuse substances intravenously
  - 11 • suspected sexual abuse.
- 12 R9. Explain to a woman who has had no antenatal care why and when information
- 13 about her pregnancy may need to be shared with other agencies. [This
- 14 recommendation is adapted from the NICE guideline on [pregnancy and complex](#)
- 15 [social factors](#)].
- 16 R10. Contact the woman's GP and, if appropriate, other health or social care
- 17 professionals for more information about the woman's history and to plan ongoing
- 18 care.
- 19 R11. If there are safeguarding concerns, refer the woman to safeguarding services,
- 20 document the referral and inform healthcare professionals such as the GP, health
- 21 visitor and paediatric teams, and social care professionals (see the NICE guidelines
- 22 on [pregnancy and complex social factors](#), [child maltreatment](#) and [child abuse and](#)
- 23 [neglect](#)).
- 24 R12. Follow the recommendations in the NICE guideline on [intrapartum care for](#)
- 25 [healthy women and babies](#) when no medical conditions or obstetric complications are
- 26 identified in women who present in labour with no antenatal care.

## 2 Rationale and impact

### 2 Why the committee made the recommendations

29 No evidence was found on intrapartum care for women who have had no antenatal

30 care so the committee agreed to make recommendations based on their expertise

31 and knowledge of good clinical practice.

32 Because of the lack of baseline information and a birth plan, intrapartum care for

33 these women should be led by an obstetrician who will carry out a full assessment of

34 the risks for the woman and her baby. The neonatal team should be alerted because

35 the committee agreed that there is an increased risk of serious medical problems for

36 the baby when a woman has had no antenatal care. Sometimes an anaesthetic team

37 may also be needed.

38 Sensitive enquiry should be made to try to understand the reasons for the lack of

39 antenatal care, as well as to identify any vulnerability and safeguarding issues. It is

40 important to ask the woman who she would like as her birth companion(s) and to

41 identify their relationship with her. If there is a language barrier, an independent

42 interpreter should be used rather than the woman's birth companion(s).

1 Blood and urine tests normally performed as part of routine antenatal care should be  
2 offered to check for markers of anaemia and infection. Rapid HIV testing should be  
3 offered to women who are thought to be at high risk of HIV because steps can be  
4 taken to prevent mother-to-child transmission of known HIV infection during vaginal  
5 birth. Evidence suggested that HIV testing would offer a good balance of benefits and  
6 costs in women at high risk of infection. The test results would be used to plan care  
7 during labour, birth and postnatally.

8 The committee agreed that the woman's GP should be contacted to obtain more  
9 information about her history and to plan for her own and the baby's ongoing care.  
10 Safeguarding concerns should be considered and if necessary referrals made. The  
11 woman should be informed when other healthcare professionals, social care  
12 professionals, safeguarding teams or the police need to be contacted. It is also  
13 important to document and share information with relevant professionals, such as the  
14 paediatric team and local health providers, for continuation of care.

### **15 Impact of the recommendations on practice**

16 The recommendations largely reflect good clinical practice and therefore will not  
17 mean a large change. However, rapid HIV testing is not currently widely available. An  
18 assessment of local needs for such services should be done.

### **19 The committee's discussion of the evidence**

#### **20 Interpreting the evidence**

##### **21 The outcomes that matter most**

22 The committee rated maternal mortality and morbidities and mortality in the baby as  
23 critical outcomes because not having received antenatal care is a significant risk  
24 factor for these outcomes. The committee rated mode of birth as an important  
25 outcome because not having received antenatal care could increase the risk of  
26 unnecessary interventions leading to poor outcomes. The committee also rated a  
27 woman's experience of labour and birth, including the experience of her birth  
28 companion(s), separation of the woman and baby and breastfeeding initiation, as  
29 important outcomes. The committee was aware that some women with no antenatal  
30 care can feel pressurised into having a caesarean section. In addition to the physical  
31 consequences of surgery, a caesarean section is more likely to result in separation of  
32 the woman and baby and this can have a negative impact on breastfeeding and  
33 perinatal mental health. The committee rated perinatal morbidities as important  
34 outcomes. For intrapartum fetal monitoring (cardiotocography versus intermittent  
35 auscultation), the committee agreed that hypoxic ischaemic encephalopathy (HIE),  
36 cerebral palsy, neurodevelopmental disability, developmental delay, neonatal  
37 seizures and cord blood gas values at birth (arterial or venous pH < 7) were  
38 important outcomes. These morbidities may arise because of fetal hypoxia in labour.  
39 The committee considered any morbidities in the baby as important outcomes for the  
40 other aspects of care to be evaluated in the review.

##### **41 The quality of the evidence**

42 No clinical evidence was identified for this review.

##### **43 Benefits and harms**

44 Antenatal care aims to monitor the wellbeing of the pregnant woman and her baby  
45 and progress of the pregnancy, to screen for anomalies or complications, to give

1 women information about healthy pregnancy, and to plan for labour and birth. In  
2 essence, it is offered to minimise the risk of adverse birth events and experiences.  
3 However, some women present in labour having had no antenatal care. In such  
4 situations, labour and birth need to be managed without the baseline information and  
5 birth plan normally established as part of antenatal care.

6 Because of the potential risks and complexities during labour and birth for women  
7 with no antenatal care and their babies, the committee agreed that in these  
8 circumstances antenatal care should be obstetrician-led. Obstetricians have the  
9 expertise needed to triage potentially complex medical and obstetric issues. The  
10 committee agreed that intrapartum care for women with no antenatal care and their  
11 babies should not be unnecessarily medicalised if there are no clinical indications,  
12 and they thought the best person to assess this would usually be the obstetrician. In  
13 addition, the neonatal team and, if relevant, the anaesthetic team should be notified  
14 because of the increased possibility of complications.

15 In addition to physical and medical issues, it is important to recognise and assess  
16 social and psychological factors in care for these women. Healthcare professionals  
17 should recognise the sensitivity of such issues and care for women with respect in all  
18 circumstances. This motivated the committee to include a recommendation that  
19 healthcare professionals should be aware of the particular importance of the  
20 recommendations in the NICE guideline on [intrapartum care for healthy women and](#)  
21 [babies](#) (CG190) that relate to establishing rapport and treating the woman with  
22 respect.

23 The committee recognised that women presenting in labour with no antenatal care  
24 are a diverse group of individuals and the reasons why a particular woman has no  
25 antenatal care are equally varied. For example, there are women:

- 26 • who visit or enter the UK from countries where women do not receive antenatal  
27 care routinely
- 28 • are not aware of the opportunity to receive antenatal care or aware of the  
29 importance of antenatal care
- 30 • whose partners or families do not allow them to access antenatal care
- 31 • with learning disabilities whom the services might have missed
- 32 • who misuse substances and are unable or unwilling to access antenatal care
- 33 • who are modern slaves or have experienced human trafficking
- 34 • who do not know they are pregnant and have therefore not accessed antenatal  
35 care.

36 The committee agreed that it is important to try to understand why a woman has not  
37 accessed antenatal care. In addition to attending to the immediate needs of the  
38 woman in labour, it is important to recognise potential health, social care and  
39 safeguarding needs and their implications beyond childbirth.

40 The committee emphasised that to establish a sense of the woman's situation it is  
41 important to take a history from the woman herself and not from her birth  
42 companion(s) so that she can give own account of her situation. In line with the NICE  
43 guideline on [pregnancy and complex social factors](#) (CG110), if the woman has  
44 difficulty understanding, speaking or reading English, an interpreter should be  
45 provided; the interpreter should not be the woman's partner, guardian or a family  
46 member so that an objective interpretation of the woman's situation can be obtained.

47 An assessment of the woman's medical, psychological and social history should be  
48 undertaken as fully as possible to establish her situation and the reasons she has not

- 1 accessed antenatal care, to assess the risk of complications in labour and birth, and
- 2 to assess safeguarding issues for the woman and her baby in order to plan
- 3 supportive postnatal care.
  
- 4 In addition, the woman's GP should be contacted to obtain information regarding any
- 5 medical issues and to plan ongoing care, such as postnatal checks.
  
- 6 Safeguarding issues might include sexual abuse, domestic violence, substance
- 7 misuse, forced marriage, human trafficking and female genital mutilation. The
- 8 committee discussed that in their experience it is important to include in the care of
- 9 the woman those individuals who have prior knowledge about her situation and risks
- 10 in relation to safeguarding issues. The committee also agreed that it is important to
- 11 assess and recognise any learning disabilities or cognitive impairment and, if
- 12 present, to address any specific needs in relation to these.
  
- 13 The committee agreed that the NICE guideline on [pregnancy and complex social](#)
- 14 [factors](#) (CG110), which provides a model for service provision for pregnant women
- 15 with complex social factors, was particularly relevant to women in labour with no
- 16 antenatal care. The guideline deals with aspects of care during pregnancy for women
- 17 who misuse substances, women who are recent migrants, asylum seekers or
- 18 refugees, those who have difficulty reading or speaking English, women under the
- 19 age of 20 years and those who have experienced domestic violence. In the
- 20 committee's experience, such women more often present in labour without having
- 21 antenatal care. While the guideline covers aspects of care during pregnancy, it
- 22 provides insights into issues relevant to intrapartum care.
  
- 23 The committee recognised that some women presenting in labour with no antenatal
- 24 care would be in vulnerable life situations. Attending a healthcare facility to give birth
- 25 provides an opportunity to provide help and support to such women. When
- 26 safeguarding issues arise, healthcare professionals should discuss them with the
- 27 woman and if information about the pregnancy needs to be shared with other
- 28 agencies (for example, other healthcare professionals, social care professionals, or
- 29 the police) this should be explained to the woman. The committee agreed that it is
- 30 important to document such matters carefully, and to inform the GP, health visitor
- 31 and paediatric teams and social care professionals.
  
- 32 In terms of managing labour and birth, the woman should be offered a general
- 33 medical and obstetric examination to assess the risk of potential complications and to
- 34 ensure that she woman is coping well with labour and birth. If possible, ultrasound
- 35 assessment to assess viability of the baby, to determine its presentation, to identify
- 36 multiple pregnancy, and to identify the placental position. The committee recognised
- 37 that ultrasound is not always available, for example, if a woman is in labour in a
- 38 home setting. Estimating gestational age can be helpful, however, the committee
- 39 agreed that estimating gestational age via ultrasound during labour is difficult and
- 40 inaccurate. The committee agreed that unless there are clinical reasons continuous
- 41 cardiotocography is not needed.
  
- 42 Blood and urine testing should be offered in line with recommendations in the NICE
- 43 guideline on [antenatal care for uncomplicated pregnancies](#) (CG62). Routine blood
- 44 and urine tests for pregnant women include those for anaemia, blood group, rhesus
- 45 D status, atypical red cell alloantibodies, blood glucose and bacteriuria.
  
- 46 If the woman is HIV positive, there will be a concern about vertical transmission of
- 47 HIV from the woman to the baby during vaginal birth and through breastfeeding. If
- 48 the woman's HIV status is unknown and she is thought to be at high risk of infection,
- 49 rapid HIV testing in a laboratory to provide a result within hours should be offered.



- 1 Women for whom this might be particularly relevant include recent migrants from
- 2 countries with high rates of HIV infection (for example, some countries in sub-
- 3 Saharan Africa), women who misuse substances intravenously (and potentially re-
- 4 use contaminated needles) and women in whom sexual abuse is suspected.
- 5 Ongoing management for women found to be HIV positive is outside the scope of
- 6 this guideline.
  
- 7 The committee agreed that if no medical conditions or obstetric complications are
- 8 identified, intrapartum care for women with no antenatal care should be provided in
- 9 line with the NICE guideline on [intrapartum care for healthy women and babies](#)
- 10 (CG190).

### **10 Cost effectiveness and resource use**

12 Health economic evidence on the cost-effectiveness of rapid HIV testing for women  
13 with no antenatal care was available from 3 studies. The studies suggested that rapid  
14 HIV testing for women with no antenatal care would not only be cost effective but  
15 would be cost saving, with the costs of testing, counselling and treatment being more  
16 than offset by savings in treating lifetime paediatric HIV infection.

17 Each of the studies was based in a US setting and undertook a cost effectiveness  
18 analysis using decision analytic modelling. The base-case analysis in each model  
19 used prevalence rates of HIV infection ranging from 0.5% to 5.0%, although the  
20 impact of different prevalence rates was assessed through sensitivity analysis. All 3  
21 analyses compared no intervention with rapid testing for HIV infection followed by  
22 treatment with zidovudine of women who tested positive and their babies after birth.  
23 Important drivers of cost differences in these analyses was the prevalence of HIV  
24 infection in women without antenatal care, the costs of paediatric HIV infection and  
25 the reduced risk of intrapartum HIV transmission as a result of treatment.

26 All of the studies were considered to be partially applicable to the NICE decision  
27 making context, and to have potentially serious limitations. The studies were dated  
28 and set in a different healthcare system to the NHS. Although each study undertook  
29 one-way sensitivity analysis to assess parameter uncertainty, PSA was not  
30 undertaken. Estimates of the effectiveness of treatment were not based on  
31 randomised clinical trials, although sensitivity analysis was used to assess the  
32 importance of uncertainty with respect to treatment effects.

33 The committee discussed that the available evidence was outdated and did not  
34 necessarily reflect the UK setting and current situation, especially in terms of the  
35 tests being used, the diagnostic accuracy of HIV tests, the assumed HIV prevalence  
36 in the population of interest, the life expectancy for HIV-positive babies, the  
37 effectiveness of antiretroviral treatment in preventing vertical transmission of HIV,  
38 and associated short- and long-term costs.

39 In current practice, rapid HIV testing may not be performed or available, although  
40 same-day testing is available in most large centres. Rapid testing requires 24-hour  
41 availability of laboratory facilities and technicians. Considering the rare occasions  
42 when it would be needed, the cost effectiveness of such service provision is likely to  
43 vary between hospitals and units, particularly in low-prevalence settings.  
44 Furthermore, there are potential implementation issues in setting up a rapid testing  
45 service where one does not currently exist.

46 While recognising that the prevalence of HIV infection in England is generally low,  
47 the committee was of the view that rapid HIV testing during the intrapartum period in  
48 women with no antenatal care would be cost effective if the woman had a higher

1 likelihood of having undiagnosed HIV. The costs of testing and treatment would be  
2 relatively low and there are potentially large savings from averting a paediatric HIV  
3 infection as well as improvements in quality of life that would be achieved in  
4 otherwise infected babies. In addition, the cost and potential harm of unnecessary  
5 caesarean section could outweigh the cost of offering rapid HIV testing for certain  
6 women. Therefore, the committee felt justified in making an offer of rapid HIV testing  
7 to women in the intrapartum period with no antenatal care, if the woman is thought to  
8 be at higher likelihood of having undiagnosed HIV.

**Other factors the committee took into account**

10 The committee was aware that some women with no antenatal care might not be  
11 registered with a GP or they might not engage with postnatal care. These women are  
12 at particular risk of maternal morbidity and mortality. The committee hoped that the  
13 guideline recommendations about multidisciplinary working involving health and  
14 social care services, sharing information, and engaging with the woman would  
15 facilitate improvement in this area. This would also help to improve the longer-term  
16 health and wellbeing of the woman and the baby.

17 The committee was also aware of the NICE guidelines on [child maltreatment](#) (CG89)  
18 and [child abuse and neglect](#) (NG76) and referred to these in their recommendations  
19 related to safeguarding.

# 1 **References**

## 2 **Grobman 1999**

3 Grobman, W. A., Garcia, P. M., The cost-effectiveness of voluntary intrapartum rapid  
4 human immunodeficiency virus testing for women without adequate prenatal care,  
5 American Journal of Obstetrics & Gynecology, 181, 1062-71, 1999

## 6 **Mrus 2004**

7 Mrus, J. M., Tsevat, J., Cost-effectiveness of interventions to reduce vertical HIV  
8 transmission from pregnant women who have not received prenatal care, Medical  
9 Decision Making, 24, 30-9, 2004

## 10 **Stringer 1999**

11 Stringer, J. S., Rouse, D. J., Rapid testing and zidovudine treatment to prevent  
12 vertical transmission of human immunodeficiency virus in unregistered parturients: a  
13 cost-effectiveness analysis, Obstetrics & Gynecology, 94, 34-40, 1999  
14

# 1 Appendices

## Appendix A – Review protocol

### Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour

Item	Details	Working notes
Area in the scope	Women at high risk of adverse outcomes for themselves and/or their baby because of obstetric complications or other reasons – intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour	
Review question in the scope	What are the most appropriate systems for risk assessment and management of labour for women who present in labour having had no antenatal care?	
Review question for the guideline	What are the most appropriate systems for risk assessment and management of labour for women who present in labour having had no antenatal care?	
Objective	The aim of this review is to determine the most appropriate systems for risk assessment and management of labour for women who present in labour having had no antenatal care. This is an important topic because inadequate utilisation of antenatal care services has been shown to be associated with increased odds of maternal death in the UK (Nair 2015, Nair 2016)	
Population and directness	<p>Women who present in labour having had no antenatal care</p> <p>Studies in which up to 34% of the women have multiple pregnancy will be included. Evidence in which any of the women have multiple pregnancy should be downgraded for indirectness.</p>	
Intervention	<p><u>Intervention 1</u></p> <p>Any assessment or management protocols, tools or scoring systems for women with no antenatal care for use at the onset of labour</p> <p><u>Intervention 2</u></p> <p>One or more of the following recorded assessments performed during labour and birth in addition to usual intrapartum care (see comparison section for definition of usual care):</p> <ul style="list-style-type: none"> <li>• clinical history <ul style="list-style-type: none"> <li>○ woman's age</li> <li>○ gestational age</li> <li>○ pre-existing medical, surgical and gynaecological conditions or history of medical conditions</li> <li>○ substance misuse</li> <li>○ obstetric history</li> <li>○ family history</li> <li>○ mental health</li> <li>○ FGM</li> </ul> </li> </ul>	•

Item	Details	Working notes
	<ul style="list-style-type: none"> <li>○ concealed pregnancy</li> <li>● physical examination <ul style="list-style-type: none"> <li>○ needle marks</li> <li>○ evidence of abuse or trauma</li> <li>○ FGM</li> </ul> </li> <li>● tests <ul style="list-style-type: none"> <li>○ blood tests (HIV, hepatitis, blood group, full blood count, blood glucose, or blood group antibodies)</li> <li>○ swabs (for example, if chlamydia is suspected)</li> <li>○ urine tests (drug use, infection, protein, or glucose)</li> <li>○ ultrasound scan for number of babies, placental site, presentation, estimated gestation and fetal weight, and viability</li> </ul> </li> <li>● current pregnancy <ul style="list-style-type: none"> <li>○ fetal growth/size</li> <li>○ placental site</li> </ul> </li> <li>● other <ul style="list-style-type: none"> <li>○ assessment of language</li> <li>○ socio-economic status</li> <li>○ learning needs</li> <li>○ domestic abuse</li> <li>○ birth environment</li> <li>○ mental capacity</li> </ul> </li> </ul> <p><u>Intervention 3</u> Risk assessment and management by MDT (including multiple professionals such as midwife, consultant obstetrician, anaesthetist, social worker, neonatal team for assessment, translator if needed, and possibly psychiatrist)</p> <p><u>Intervention 4</u> Cardiotocography (CTG) applied because the woman has received no antenatal care rather than because of risk factors outlined in the NICE guideline on intrapartum care for healthy women and babies (CG190):</p> <ul style="list-style-type: none"> <li>● on admission</li> <li>● during established labour</li> </ul>	
Comparison	<p><u>Comparison 1</u> Usual care, that is assessment or management protocols, tools or scoring systems as per women with antenatal care, such as recommendations in the NICE guideline on intrapartum care for healthy women and babies (CG190) or modified early obstetric warning score (MEOWS)</p> <p><u>Comparison 2</u> Usual care as per women with antenatal care: initial assessment recommendations in the NICE guideline on intrapartum care for healthy women and babies (CG190), excluding the recommendation about reviewing antenatal notes:</p>	

Item	Details	Working notes
	<p>1.4.1 When performing an initial assessment of a woman in labour, listen to her story and take into account her preferences and her emotional and psychological needs.</p> <p>1.4.2 Carry out an initial assessment to determine if midwifery-led care in any setting is suitable for the woman, irrespective of any previous plan. The assessment should comprise the following:</p> <ul style="list-style-type: none"> <li>• Observations of the woman: ... <ul style="list-style-type: none"> <li>○ Ask her about the length, strength and frequency of her contractions.</li> <li>○ Ask her about any pain she is experiencing and discuss her options for pain relief.</li> <li>○ Record her pulse, blood pressure and temperature, and carry out urinalysis.</li> <li>○ Record if she has had any vaginal loss.</li> </ul> </li> <li>• Observations of the unborn baby: <ul style="list-style-type: none"> <li>○ Ask the woman about the baby's movements in the last 24 hours.</li> <li>○ Palpate the woman's abdomen to determine the fundal height, the baby's lie, presentation, position, engagement of the presenting part, and frequency and duration of contractions</li> </ul> </li> <li>• Auscultate the fetal heart rate for a minimum of 1 minute immediately after a contraction. Palpate the woman's pulse to differentiate between the heartbeats of the woman and the baby.</li> </ul> <p>In addition (see also recommendation 1.4.5):</p> <ul style="list-style-type: none"> <li>• If there is uncertainty about whether the woman is in established labour, a vaginal examination may be helpful after a period of assessment, but is not always necessary.</li> <li>• If the woman appears to be in established labour, offer a vaginal examination. [2014]</li> </ul> <p><u>Comparison 3</u> Usual care, for example assessment and management by a midwife without the support of the MDT</p> <p><u>Comparison 4</u> • Intermittent auscultation (IA): <ul style="list-style-type: none"> <li>○ on admission</li> <li>○ during established labour</li> </ul> </p>	
Outcomes	<p>Critical outcomes:</p> <ul style="list-style-type: none"> <li>• for the woman: <ul style="list-style-type: none"> <li>○ mortality</li> <li>○ morbidities</li> </ul> </li> <li>• for the baby: <ul style="list-style-type: none"> <li>○ mortality</li> </ul> </li> </ul> <p>Important outcomes:</p> <ul style="list-style-type: none"> <li>• for the woman: <ul style="list-style-type: none"> <li>○ mode of birth</li> </ul> </li> </ul>	

Item	Details	Working notes
	<ul style="list-style-type: none"> <li>○ woman's experience of labour and birth, including experience of the birth companion, separation of the woman and baby and breastfeeding initiation</li> <li>● for the baby:               <ul style="list-style-type: none"> <li>○ morbidities                   <ul style="list-style-type: none"> <li>- any morbidities for comparisons 1, 2 and 3</li> <li>- for comparison 4 (CTG versus IA), major neonatal morbidity could include hypoxic ischaemic encephalopathy (HIE), cerebral palsy, neurodevelopmental disability, developmental delay, or neonatal seizures</li> <li>- for comparison 4 (CTG versus IA), cord blood gas values at birth (arterial or venous pH &lt;7.10)</li> </ul> </li> </ul> </li> </ul> <p>Outcomes of limited importance:</p> <ul style="list-style-type: none"> <li>● for the woman:               <ul style="list-style-type: none"> <li>○ admission to HDU/ITU and duration of hospital stay</li> </ul> </li> </ul>	
Importance of outcomes	<p>Preliminary classification of the outcomes for decision making:</p> <ul style="list-style-type: none"> <li>● critical (up to 3 outcomes)</li> <li>● important but not critical (up to 3 outcomes)</li> <li>● of limited importance (1 outcome)</li> </ul>	
Setting	All birth settings in developed countries	
Stratified, subgroup and adjusted analyses	<p>Groups that will be reviewed and analysed separately:</p> <ul style="list-style-type: none"> <li>● pre-existing medical conditions</li> <li>● obstetric risk factors (such as fetal growth, placental site, or presentation)</li> </ul> <p>In the presence of heterogeneity, the following subgroups will be considered for sensitivity analysis:</p> <ul style="list-style-type: none"> <li>● socioeconomic status</li> <li>● ethnicity</li> <li>● age (teenagers may be of particular interest)</li> <li>● women who misuse substances</li> <li>● women who are recent migrants, asylum seekers or refugees, or who have difficulty reading or speaking English</li> <li>● women who experience domestic abuse</li> <li>● women with mental health issues</li> <li>● women in prison</li> <li>● victims of trafficking</li> <li>● homeless women</li> </ul> <p>Potential confounders:</p> <ul style="list-style-type: none"> <li>● age</li> <li>● socioeconomic status</li> <li>● pre-existing medical conditions</li> <li>● obstetric risk factors (fetal growth, placental site, or presentation)</li> <li>● substance misuse</li> </ul>	

Item	Details	Working notes
	<ul style="list-style-type: none"> <li>English language level of proficiency</li> </ul>	
Language	English	
Study design	<ul style="list-style-type: none"> <li>Published full text papers only</li> <li>Systematic reviews</li> <li>RCTs</li> <li>Only if RCTs unavailable or there is limited data to inform decision making:               <ul style="list-style-type: none"> <li>prospective or retrospective comparative observational studies (including cohort and case-control studies)</li> <li>for comparisons 1, 2 and 3: before-and-after studies will be included if the difference in outcomes is selectively due to risk assessment and management of labour for women with no antenatal care, not due to changes in the entire system</li> </ul> </li> <li>Prospective study designs will be prioritised over retrospective study designs</li> <li>Conference abstracts will not be considered</li> </ul>	
Search strategy	<p>Sources to be searched: Medline, Medline In-Process, CCTR, CDSR, DARE, HTA and Embase.</p> <p>Limits (e.g. date, study design): All study designs. Apply standard animal/non-English language filters. No date limit.</p> <p>Supplementary search techniques: No supplementary search techniques were used.</p> <p>See Appendix B – Literature search strategies for full strategies</p>	
Review strategy	<p>Appraisal of methodological quality:</p> <ul style="list-style-type: none"> <li>the methodological quality of each study will be assessed using checklists recommended in the NICE guidelines manual 2014 (for example, AMSTAR or ROBIS for systematic reviews, and Cochrane RoB tool for RCTs) and the quality of the evidence for each outcome (that is, across studies) will be assessed using GRADE</li> <li>if studies report only p-values, this information will be recorded in GRADE tables without an assessment of imprecision</li> </ul> <p>Synthesis of data:</p> <ul style="list-style-type: none"> <li>meta-analysis will be conducted where appropriate</li> <li>default MID<sub>s</sub> will be used; 0.8 and 1.25 for dichotomous outcomes; 0.5 times the SD of the measurement in the control arm (or median score across control arms if multiple studies are included) for continuous outcomes</li> <li>for continuous data, change scores will be used in preference to final scores for data from non-RCT studies; final and change scores will not be pooled; if any study reports both, the method used in the majority of studies will be adopted</li> </ul>	<p>Review questions selected as high priorities for health economic analysis (and those selected as medium priorities and where health economic analysis could influence recommendations) will be subject to dual weeding and study selection; any discrepancies will be resolved through discussion between the first and second reviewers or by reference to a third person. This review question was not prioritised for health economic analysis and so no formal dual weeding, study selection (inclusion/exclusion) or data extraction into</p>



Item	Details	Working notes
		evidence tables will be undertaken. However, internal (NGA) quality assurance processes will include consideration of the outcomes of weeding, study selection and data extraction and the committee will review the results of study selection and data extraction
Equalities	<p>Equalities considerations will be considered systematically in relation to the available evidence and draft recommendations.</p> <p>The guideline scope includes women with cognitive or physical disability as populations for whom there may be equalities issues.</p> <p>Women who have received no antenatal care will be considered as a subgroup for all systematic reviews performed within the medical conditions work stream and a specific question has been included in the obstetric complications work stream for this population</p>	
Notes/additional information	<p>Nair, M., M. Knight and J. J. Kurinczuk (2016). Risk factors and newborn outcomes associated with maternal deaths in the UK from 2009 to 2013: a national case-control study. <i>BJOG</i> 123(10): 1654-1662.</p> <p>Nair, M., J. J. Kurinczuk, P. Brocklehurst, S. Sellers, G. Lewis and M. Knight (2015). Factors associated with maternal death from direct pregnancy complications: a UK national case-control study. <i>BJOG</i> 122(5): 653-662.</p> <p>NICE guideline on pregnancy and complex social factors: a model for service provision for pregnant women with complex social factors (<a href="https://www.nice.org.uk/guidance/cg110/resources/pregnancy-and-complex-social-factors-a-model-for-service-provision-for-pregnant-women-with-complex-social-factors-pdf-35109382718149">https://www.nice.org.uk/guidance/cg110/resources/pregnancy-and-complex-social-factors-a-model-for-service-provision-for-pregnant-women-with-complex-social-factors-pdf-35109382718149</a>)</p> <p>NICE guideline on antenatal care for uncomplicated pregnancies [CG62] (Published: 2008; updated: 2017) (<a href="https://www.nice.org.uk/guidance/cg62">https://www.nice.org.uk/guidance/cg62</a>)</p>	
Key papers	None identified by the committee	

- 1 AMSTAR: Assessing the Methodological Quality of Systematic Reviews; CDSR: Cochrane Database of
- 2 Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; CTG:
- 3 cardiotocography; DARE: Database of Abstracts of Reviews of Effects; EFM: electronic fetal monitoring;
- 4 FGM: female genital mutilation; GRADE: Grading of Recommendations Assessment, Development and
- 5 Evaluation; HDU: high dependency unit; HIV: human immunodeficiency virus; HTA: Health Technology
- 6 Assessment; IA: intermittent auscultation; ITU: intensive therapy unit; MDT: multidisciplinary team;
- 7 MEOWS: Modified Early Obstetric Warning Score; MID: minimally important difference; NGA: National
- 8 Guideline Alliance; NICE: National Institute for Health and Care Excellence; NICU: neonatal intensive
- 9 care unit; RCT: randomised controlled trial; RoB: risk of bias; ROBIS: Risk of Bias in Systematic
- 10 Reviews; SD: standard deviation

## Appendix B – Literature search strategies

### Intrapartum care for women who present in labour having had no antenatal care – 3 risk assessment and management of labour

**Database: Medline; Medline Epub Ahead of Print; and Medline In-Process & Other Non-Indexed Citations**

#	Searches
1	PERIPARTUM PERIOD/
2	PARTURITION/
3	LABOR, OBSTETRIC/
4	exp LABOR ONSET/
5	UTERINE CONTRACTION/
6	OBSTETRIC LABOR, PREMATURE/
7	DELIVERY, OBSTETRIC/
8	(labo?ring or partur\$ or intra?part\$ or peri?part\$).ti,ab.
9	(labo?r adj3 (during or in or present\$ or onset)).ti,ab.
10	((present\$ adj5 (hospital? or unit? or department?)) and (labo?r or pregnan\$ or childbirth? or birth\$)).ti,ab.
11	((during or giving) adj3 (birth? or childbirth?)).ti,ab.
12	or/1-11
13	*HEALTH SERVICES ACCESSIBILITY/
14	HEALTHCARE DISPARITIES/
15	HEALTH SERVICES MISUSE/
16	NO-SHOW PATIENTS/
17	((no or late or delay\$ or lack\$ or without) adj5 (antenatal\$ or prenatal\$ or pre-natal\$) adj3 care).ab,ti.
18	((no or unable or restrict\$ or limit\$) adj3 access\$ adj3 (care or healthcare or service?)).ti,ab.
19	(unbook\$ or un-book\$ or (late adj3 book\$)).ti,ab.
20	walk\$ in?.ti,ab.
21	((no or non) adj3 engag\$).ti,ab.
22	no show.ti,ab.
23	or/13-22
24	*SOCIOECONOMIC FACTORS/
25	MINORITY GROUPS/
26	VULNERABLE POPULATIONS/
27	HOMELESS PERSONS/
28	HOMELESS YOUTHS/
29	DRUG USERS/
30	SEX WORKERS/
31	"TRANSIENTS AND MIGRANTS"/

#	Searches
32	REFUGEES/
33	"EMIGRANTS AND IMMIGRANTS"/
34	UNDOCUMENTED IMMIGRANTS/
35	PRISONERS/
36	PREGNANCY IN ADOLESCENCE/
37	DOMESTIC VIOLENCE/
38	SPOUSE ABUSE/
39	BATTERED WOMEN/
40	((socioeconomic or socio-economic) adj1 (factor? or status\$)).ti,ab.
41	(minorit\$ adj3 (ethnic or group?)).ti,ab.
42	(vulnerable adj3 (population? or people or person?)).ab,ti.
43	marginali\$.ti,ab.
44	(homeless\$ or home less).ti,ab.
45	no fixed abode?.ti,ab.
46	((drug? or substance?) adj3 (user? or used or using or misus\$)).ti,ab.
47	sex worker?.ti,ab.
48	prostitut\$.ti,ab.
49	migrant?.ti,ab.
50	refugee?.ti,ab.
51	immigrant?.ti,ab.
52	(asylum adj3 seek\$).ti,ab.
53	(recent\$ adj3 arriv\$).ti,ab.
54	traffick\$.ti,ab.
55	traveller?.ti,ab.
56	travelling population?.ti,ab.
57	prison\$.ti,ab.
58	((teen\$ or preteen\$ or adolescen\$) adj3 pregnan\$).ti,ab.
59	((domestic\$ or family) adj3 (violen\$ or abus\$)).ti,ab.
60	((spous\$ or wife or wives or wom?n or partner?) adj3 (abus\$ or batter\$)).ti,ab.
61	or/24-60
62	PREGNANCY, UNPLANNED/
63	PREGNANCY, UNWANTED/
64	((conceal\$ or hide? or hidden or hiding or unexpected or un-expected or unintended or un-intended or unsuspect\$ or un-suspect\$ or unaware or un-aware or unplanned or un-planned or unwanted or un-wanted) adj3 pregnan\$).ti,ab.
65	or/62-64
66	RISK ASSESSMENT/
67	CRITICAL PATHWAY/
68	CLINICAL PROTOCOLS/
69	(risk? adj3 (assess\$ or stratif\$ or screen\$ or manag\$)).ti,ab.

#	Searches
70	((assess\$ or manag or monitor\$) adj5 (plan\$ or pathway? or protocol? or tool? or score? or scoring or system? or strateg\$)).ti,ab.
71	or/66-70
72	MEDICAL HISTORY TAKING/
73	(history adj3 (take or taking)).ti,ab.
74	(history adj3 clinical).ti,ab.
75	(history adj3 (family or families or parent\$)).ti,ab.
76	((Record\$ or assess\$ or investigat\$ or indicat\$) adj5 ((Wom?n? adj3 age?) or gestational age? or ((medical or surgical or gyn?ecolog\$) adj3 condition?) or ((drug? or substance?) adj3 (user? or used or using or misus\$)) or obstetric\$ histor\$ or mental health or female genital mutilat\$ or FGM)).ti,ab.
77	PHYSICAL EXAMINATION/
78	((clinical\$ or physical\$) adj3 (examin\$ or investigat\$ or observ\$)).ti,ab.
79	needle mark?.ti,ab.
80	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (abuse? or trauma\$)).ti,ab.
81	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (female genital mutilat\$ or FGM)).ti,ab.
82	exp HEMATOLOGIC TESTS/
83	((blood or human immunodeficiency virus or HIV or hepatitis) adj3 test\$).ti,ab.
84	swab?.ti,ab.
85	(urine adj3 test?).ti,ab.
86	URINALYSIS/
87	urinalys?s.ti,ab.
88	(urine adj3 culture?).ti,ab.
89	urine electrolyte level?.ti,ab.
90	exp ULTRASONOGRAPHY/
91	ultrasonograph\$.ti,ab.
92	sonograph\$.ti,ab.
93	ultrasound.ti,ab.
94	sonogram?.ti,ab.
95	((measur\$ or record\$ or assess\$ or investigat\$) adj10 ((fetal or fetus\$) adj3 (grow\$ or size?))).ti,ab.
96	(placenta? adj3 site?).ti,ab.
97	COMMUNICATION BARRIERS/
98	((communicat\$ or language?) adj3 barrier?).ti,ab.
99	TRANSLATING/
100	(translat\$ adj3 (communicat\$ or language? or informat\$)).ti,ab.
101	translator?.ti,ab.
102	(difficult\$ adj3 english).ti,ab.
103	(assess\$ adj3 (language? or english)).ti,ab.
104	(assess\$ adj3 mental\$ adj1 (health or capacit\$)).ti,ab.

#	Searches
105	(assess\$ adj3 learn\$ adj1 need?).ti,ab.
106	or/72-105
107	PATIENT CARE TEAM/
108	((patient? or medical or health) adj1 care team).ab,ti.
109	((multidiscipline\$ or multi-disciplin\$ or multiprofession\$ or multi-profession\$ or integrat\$ or network\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
110	((interdisciplin\$ or inter-disciplin\$ or interprofession\$ or inter-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
111	((transdisciplin\$ or trans-disciplin\$ or transprofession\$ or trans-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
112	mdt?.ab,ti.
113	Network\$ meeting?.ti,ab.
114	or/107-113
115	CARDIOTOCOGRAPHY/
116	ELECTROCARDIOGRAPHY/
117	cardiotocogra\$.ti,ab.
118	CTG.ti,ab.
119	electrocardiogra\$.ti,ab.
120	ECG.ti,ab.
121	EKG.ti,ab.
122	(electr\$ adj5 (f?etal or f?etus\$ or uter\$) adj5 (heart\$ or monitor\$ or assess\$)).ti,ab.
123	EFM.ti,ab.
124	or/115-123
125	exp AUSCULTATION/
126	STETHOSCOPES/
127	(auscultat\$ or IA or pin?ard\$ or fetoscop\$).ti,ab.
128	((f?etal or f?etus\$) adj3 stethoscop\$).ti,ab.
129	"listen\$ in".ti,ab.
130	or/125-129
131	FETAL MONITORING/mt [Methods]
132	((labo?r or partu\$ or intra?part\$ or peri?part\$) adj3 assess\$).ti,ab.
133	12 and (23 or 61 or 65) and 71
134	12 and (23 or 61 or 65) and 106
135	12 and (23 or 61 or 65) and 114
136	12 and (23 or 61 or 65) and 124 and 130
137	12 and (23 or 61 or 65) and 131
138	(23 or 61 or 65) and 132
139	or/133-138

#	Searches
140	limit 139 to english language
141	LETTER/
142	EDITORIAL/
143	NEWS/
144	exp HISTORICAL ARTICLE/
145	ANECDOTES AS TOPIC/
146	COMMENT/
147	CASE REPORT/
148	(letter or comment*).ti.
149	or/141-148
150	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
151	149 not 150
152	ANIMALS/ not HUMANS/
153	exp ANIMALS, LABORATORY/
154	exp ANIMAL EXPERIMENTATION/
155	exp MODELS, ANIMAL/
156	exp RODENTIA/
157	(rat or rats or mouse or mice).ti.
158	or/151-157
159	140 not 158

### Database: Cochrane Central Register of Controlled Trials

#	Searches
1	PERIPARTUM PERIOD/
2	PARTURITION/
3	LABOR, OBSTETRIC/
4	exp LABOR ONSET/
5	UTERINE CONTRACTION/
6	OBSTETRIC LABOR, PREMATURE/
7	DELIVERY, OBSTETRIC/
8	(labo?ring or partur\$ or intra?part\$ or peri?part\$).ti,ab,kw.
9	(labo?r adj3 (during or in or present\$ or onset)).ti,ab.
10	((present\$ adj5 (hospital? or unit? or department?)) and (labo?r or pregnan\$ or childbirth? or birth\$)).ti,ab.
11	((during or giving) adj3 (birth? or childbirth?)).ti,ab.
12	or/1-11
13	*HEALTH SERVICES ACCESSIBILITY/
14	HEALTHCARE DISPARITIES/
15	HEALTH SERVICES MISUSE/
16	NO-SHOW PATIENTS/

#	Searches
17	((no or late or delay\$ or lack\$ or without) adj5 (antenatal\$ or prenatal\$ or pre-natal\$) adj3 care).ab,ti.
18	((no or unable or restrict\$ or limit\$) adj3 access\$ adj3 (care or healthcare or service?)).ti,ab.
19	(unbook\$ or un-book\$ or (late adj3 book\$)).ti,ab.
20	walk\$ in?.ti,ab.
21	((no or non) adj3 engag\$).ti,ab.
22	no show.ti,ab,kw.
23	or/13-22
24	*SOCIOECONOMIC FACTORS/
25	MINORITY GROUPS/
26	VULNERABLE POPULATIONS/
27	HOMELESS PERSONS/
28	HOMELESS YOUTHS/
29	DRUG USERS/
30	SEX WORKERS/
31	"TRANSIENTS AND MIGRANTS"/
32	REFUGEES/
33	"EMIGRANTS AND IMMIGRANTS"/
34	UNDOCUMENTED IMMIGRANTS/
35	PRISONERS/
36	PREGNANCY IN ADOLESCENCE/
37	DOMESTIC VIOLENCE/
38	SPOUSE ABUSE/
39	BATTERED WOMEN/
40	((socioeconomic or socio-economic) adj1 (factor? or status\$)).ti,ab.
41	(minorit\$ adj3 (ethnic or group?)).ti,ab.
42	(vulnerable adj3 (population? or people or person?)).ab,ti.
43	marginali\$.ti,ab.
44	(homeless\$ or home less).ti,ab,kw.
45	no fixed abode?.ti,ab.
46	((drug? or substance?) adj3 (user? or used or using or misus\$)).ti,ab.
47	sex worker?.ti,ab,kw.
48	prostitut\$.ti,ab,kw.
49	migrant?.ti,ab,kw.
50	refugee?.ti,ab,kw.
51	immigrant?.ti,ab,kw.
52	(asylum adj3 seek\$).ti,ab.
53	(recent\$ adj3 arriv\$).ti,ab.
54	traffick\$.ti,ab,kw.
55	traveller?.ti,ab,kw.

#	Searches
56	travelling population?.ti,ab,kw.
57	prison\$.ti,ab,kw.
58	((teen\$ or preteen\$ or adolescen\$) adj3 pregnan\$).ti,ab.
59	((domestic\$ or family) adj3 (violen\$ or abus\$)).ti,ab.
60	((spous\$ or wife or wives or wom?n or partner?) adj3 (abus\$ or batter\$)).ti,ab.
61	or/24-60
62	PREGNANCY, UNPLANNED/
63	PREGNANCY, UNWANTED/
64	((conceal\$ or hide? or hidden or hiding or unexpected or un-expected or unintended or un-intended or unsuspect\$ or un-suspect\$ or unaware or un-aware or unplanned or un-planned or unwanted or un-wanted) adj3 pregnan\$).ti,ab.
65	or/62-64
66	RISK ASSESSMENT/
67	CRITICAL PATHWAY/
68	CLINICAL PROTOCOLS/
69	(risk? adj3 (assess\$ or stratif\$ or screen\$ or manag\$)).ti,ab.
70	((assess\$ or manag or monitor\$) adj5 (plan\$ or pathway? or protocol? or tool? or score? or scoring or system? or strateg\$)).ti,ab.
71	or/66-70
72	MEDICAL HISTORY TAKING/
73	(history adj3 (take or taking)).ti,ab.
74	(history adj3 clinical).ti,ab.
75	(history adj3 (family or families or parent\$)).ti,ab.
76	((Record\$ or assess\$ or investigat\$ or indicat\$) adj5 ((Wom?n? adj3 age?) or gestational age? or ((medical or surgical or gyn?ecolog\$) adj3 condition?) or ((drug? or substance?) adj3 (user? or used or using or misus\$)) or obstetric\$ histor\$ or mental health or female genital mutilat\$ or FGM)).ti,ab.
77	PHYSICAL EXAMINATION/
78	((clinical\$ or physical\$) adj3 (examin\$ or investigat\$ or observ\$)).ti,ab.
79	needle mark?.ti,ab.
80	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (abuse? or trauma\$)).ti,ab.
81	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (female genital mutilat\$ or FGM)).ti,ab.
82	exp HEMATOLOGIC TESTS/
83	((blood or human immunodeficiency virus or HIV or hepatitis) adj3 test\$).ti,ab.
84	swab?.ti,ab,kw.
85	(urine adj3 test?).ti,ab.
86	URINALYSIS/
87	urinalys?s.ti,ab,kw.
88	(urine adj3 culture?).ti,ab.
89	urine electrolyte level?.ti,ab.
90	exp ULTRASONOGRAPHY/



#	Searches
91	ultrasonograph\$.ti,ab,kw.
92	sonograph\$.ti,ab,kw.
93	ultrasound.ti,ab,kw.
94	sonogram?.ti,ab,kw.
95	((measur\$ or record\$ or assess\$ or investigat\$) adj10 ((fetal or fetus\$) adj3 (grow\$ or size?))).ti,ab.
96	(placenta? adj3 site?).ti,ab.
97	COMMUNICATION BARRIERS/
98	((communicat\$ or language?) adj3 barrier?).ti,ab.
99	TRANSLATING/
100	(translat\$ adj3 (communicat\$ or language? or informat\$)).ti,ab.
101	translator?.ti,ab,kw.
102	(difficult\$ adj3 english).ti,ab.
103	(assess\$ adj3 (language? or english)).ti,ab.
104	(assess\$ adj3 mental\$ adj1 (health or capacit\$)).ti,ab.
105	(assess\$ adj3 learn\$ adj1 need?).ti,ab.
106	or/72-105
107	PATIENT CARE TEAM/
108	((patient? or medical or health) adj1 care team).ab,ti.
109	((multidiscipline\$ or multi-disciplin\$ or multiprofession\$ or multi-profession\$ or integrat\$ or network\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
110	((interdisciplin\$ or inter-disciplin\$ or interprofession\$ or inter-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
111	((transdisciplin\$ or trans-disciplin\$ or transprofession\$ or trans-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
112	mdt?.ab,ti.
113	Network\$ meeting?.ti,ab.
114	or/107-113
115	CARDIOTOGRAPHY/
116	ELECTROCARDIOGRAPHY/
117	cardiotocogra\$.ti,ab,kw.
118	CTG.ti,ab.
119	electrocardiogra\$.ti,ab,kw.
120	ECG.ti,ab.
121	EKG.ti,ab.
122	(electr\$ adj5 (f?etal or f?etus\$ or uter\$) adj5 (heart\$ or monitor\$ or assess\$)).ti,ab.
123	EFM.ti,ab.
124	or/115-123

#	Searches
125	exp AUSCULTATION/
126	STETHOSCOPES/
127	(auscultat\$ or IA or pin?ard\$ or fetoscop\$).ti,ab,kw.
128	((f?etal or f?etus\$) adj3 stethoscop\$).ti,ab.
129	"listen\$ in".ti,ab.
130	or/125-129
131	FETAL MONITORING/mt [Methods]
132	((labo?r or partu\$ or intra?part\$ or peri?part\$) adj3 assess\$).ti,ab.
133	12 and (23 or 61 or 65) and 71
134	12 and (23 or 61 or 65) and 106
135	12 and (23 or 61 or 65) and 114
136	12 and (23 or 61 or 65) and 124 and 130
137	12 and (23 or 61 or 65) and 131
138	(23 or 61 or 65) and 132
139	or/133-138

**Database: Cochrane Database of Systematic Reviews**

#	Searches
1	PERIPARTUM PERIOD.kw.
2	PARTURITION.kw.
3	LABOR, OBSTETRIC.kw.
4	LABOR ONSET.kw.
5	UTERINE CONTRACTION.kw.
6	OBSTETRIC LABOR, PREMATURE.kw.
7	DELIVERY, OBSTETRIC.kw.
8	(labo?ring or partur\$ or intra?part\$ or peri?part\$).ti,ab.
9	(labo?r adj3 (during or in or present\$ or onset)).ti,ab.
10	((present\$ adj5 (hospital? or unit? or department?)) and (labo?r or pregnan\$ or childbirth? or birth\$)).ti,ab.
11	((during or giving) adj3 (birth? or childbirth?)).ti,ab.
12	or/1-11
13	HEALTH SERVICES ACCESSIBILITY.kw.
14	HEALTHCARE DISPARITIES.kw.
15	HEALTH SERVICES MISUSE.kw.
16	NO-SHOW PATIENTS.kw.
17	((no or late or delay\$ or lack\$ or without) adj5 (antenatal\$ or prenatal\$ or pre-natal\$) adj3 care).ab,ti.
18	((no or unable or restrict\$ or limit\$) adj3 access\$ adj3 (care or healthcare or service?)).ti,ab.
19	(unbook\$ or un-book\$ or (late adj3 book\$)).ti,ab.
20	walk\$ in?.ti,ab.

#	Searches
21	((no or non) adj3 engag\$).ti,ab.
22	or/13-21
23	SOCIOECONOMIC FACTORS.kw.
24	MINORITY GROUPS.kw.
25	VULNERABLE POPULATIONS.kw.
26	HOMELESS PERSONS.kw.
27	HOMELESS YOUTHS.kw.
28	DRUG USERS.kw.
29	SEX WORKERS.kw.
30	"TRANSIENTS AND MIGRANTS".kw.
31	REFUGEES.kw.
32	"EMIGRANTS AND IMMIGRANTS".kw.
33	UNDOCUMENTED IMMIGRANTS.kw.
34	PRISONERS.kw.
35	PREGNANCY IN ADOLESCENCE.kw.
36	DOMESTIC VIOLENCE.kw.
37	SPOUSE ABUSE.kw.
38	BATTERED WOMEN.kw.
39	((socioeconomic or socio-economic) adj1 (factor? or status\$)).ti,ab.
40	(minorit\$ adj3 (ethnic or group?)).ti,ab.
41	(vulnerable adj3 (population? or people or person?)).ab,ti.
42	marginali\$.ti,ab.
43	(homeless\$ or home less).ti,ab.
44	no fixed abode?.ti,ab.
45	((drug? or substance?) adj3 (user? or used or using or misus\$)).ti,ab.
46	sex worker?.ti,ab.
47	prostitut\$.ti,ab.
48	migrant?.ti,ab.
49	refugee?.ti,ab.
50	immigrant?.ti,ab.
51	(asylum adj3 seek\$).ti,ab.
52	(recent\$ adj3 arriv\$).ti,ab.
53	traffick\$.ti,ab.
54	traveller?.ti,ab.
55	travelling population?.ti,ab.
56	prison\$.ti,ab.
57	((teen\$ or preteen\$ or adolescen\$) adj3 pregnan\$).ti,ab.
58	((domestic\$ or family) adj3 (violen\$ or abus\$)).ti,ab.
59	((spous\$ or wife or wives or wom?n or partner?) adj3 (abus\$ or batter\$)).ti,ab.
60	or/23-59

#	Searches
61	PREGNANCY, UNPLANNED.kw.
62	PREGNANCY, UNWANTED.kw.
63	((conceal\$ or hide? or hidden or hiding or unexpected or un-expected or unintended or un-intended or unsuspect\$ or un-suspect\$ or unaware or un-aware or unplanned or un-planned or unwanted or un-wanted) adj3 pregnan\$).ti,ab.
64	or/61-63
65	RISK ASSESSMENT.kw.
66	CRITICAL PATHWAY.kw.
67	CLINICAL PROTOCOLS.kw.
68	(risk? adj3 (assess\$ or stratif\$ or screen\$ or manag\$)).ti,ab.
69	((assess\$ or manag or monitor\$) adj5 (plan\$ or pathway? or protocol? or tool? or score? or scoring or system? or strateg\$)).ti,ab.
70	or/65-69
71	MEDICAL HISTORY TAKING.kw.
72	(history adj3 (take or taking)).ti,ab.
73	(history adj3 clinical).ti,ab.
74	(history adj3 (family or families or parent\$)).ti,ab.
75	((Record\$ or assess\$ or investigat\$ or indicat\$) adj5 ((Wom?n? adj3 age?) or gestational age? or ((medical or surgical or gyn?ecolog\$) adj3 condition?) or ((drug? or substance?) adj3 (user? or used or using or misus\$)) or obstetric\$ histor\$ or mental health or female genital mutilat\$ or FGM)).ti,ab.
76	PHYSICAL EXAMINATION.kw.
77	((clinical\$ or physical\$) adj3 (examin\$ or investigat\$ or observ\$)).ti,ab.
78	needle mark?.ti,ab.
79	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (abuse? or trauma\$)).ti,ab.
80	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (female genital mutilat\$ or FGM)).ti,ab.
81	HEMATOLOGIC TESTS.kw.
82	((blood or human immunodeficiency virus or HIV or hepatitis) adj3 test\$).ti,ab.
83	swab?.ti,ab.
84	(urine adj3 test?).ti,ab.
85	URINALYSIS.kw.
86	urinalys?s.ti,ab.
87	(urine adj3 culture?).ti,ab.
88	urine electrolyte level?.ti,ab.
89	ULTRASONOGRAPHY.kw.
90	ultrasonograph\$.ti,ab.
91	sonograph\$.ti,ab.
92	ultrasound.ti,ab.
93	sonogram?.ti,ab.
94	((measur\$ or record\$ or assess\$ or investigat\$) adj10 ((fetal or fetus\$) adj3 (grow\$ or size?))).ti,ab.

#	Searches
95	(placenta? adj3 site?).ti,ab.
96	COMMUNICATION BARRIERS.kw.
97	((communicat\$ or language?) adj3 barrier?).ti,ab.
98	TRANSLATING.kw.
99	(translat\$ adj3 (communicat\$ or language? or informat\$)).ti,ab.
100	translator?.ti,ab.
101	(difficult\$ adj3 english).ti,ab.
102	(assess\$ adj3 (language? or english)).ti,ab.
103	(assess\$ adj3 mental\$ adj1 (health or capacit\$)).ti,ab.
104	(assess\$ adj3 learn\$ adj1 need?).ti,ab.
105	or/71-104
106	PATIENT CARE TEAM.kw.
107	((patient? or medical or health) adj1 care team).ab,ti.
108	((multidiscipline\$ or multi-disciplin\$ or multiprofession\$ or multi-profession\$ or integrat\$ or network\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
109	((interdisciplin\$ or inter-disciplin\$ or interprofession\$ or inter-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
110	((transdisciplin\$ or trans-disciplin\$ or transprofession\$ or trans-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
111	mdt?.ab,ti.
112	Network\$ meeting?.ti,ab.
113	or/106-112
114	CARDIOTOGRAPHY.kw.
115	ELECTROCARDIOGRAPHY.kw.
116	cardiotocogra\$.ti,ab.
117	CTG.ti,ab.
118	electrocardiogra\$.ti,ab.
119	ECG.ti,ab.
120	EKG.ti,ab.
121	(electr\$ adj5 (f?etal or f?etus\$ or uter\$) adj5 (heart\$ or monitor\$ or assess\$)).ti,ab.
122	EFM.ti,ab.
123	or/114-122
124	AUSCULTATION.kw.
125	STETHOSCOPES.kw.
126	(auscultat\$ or IA or pin?ard\$ or fetoscop\$).ti,ab.
127	((f?etal or f?etus\$) adj3 stethoscop\$).ti,ab.
128	"listen\$ in".ti,ab.
129	or/124-128

#	Searches
130	((labo?r or partu\$ or intra?part\$ or peri?part\$) adj3 assess\$).ti,ab.
131	12 and (22 or 60 or 64) and 70
132	12 and (22 or 60 or 64) and 105
133	12 and (22 or 60 or 64) and 113
134	12 and (22 or 60 or 64) and 123 and 129
135	(22 or 60 or 64) and 130
136	or/131-135

**Database: Database of Abstracts of Reviews of Effects**

#	Searches
1	PERIPARTUM PERIOD.kw.
2	PARTURITION.kw.
3	LABOR, OBSTETRIC.kw.
4	LABOR ONSET.kw.
5	UTERINE CONTRACTION.kw.
6	OBSTETRIC LABOR, PREMATURE.kw.
7	DELIVERY, OBSTETRIC.kw.
8	(labo?ring or partur\$ or intra?part\$ or peri?part\$).tw,tx.
9	(labo?r adj3 (during or in or present\$ or onset)).tw,tx.
10	((present\$ adj5 (hospital? or unit? or department?)) and (labo?r or pregnan\$ or childbirth? or birth\$)).tw,tx.
11	((during or giving) adj3 (birth? or childbirth?)).tw,tx.
12	or/1-11
13	HEALTH SERVICES ACCESSIBILITY.kw.
14	HEALTHCARE DISPARITIES.kw.
15	HEALTH SERVICES MISUSE.kw.
16	NO-SHOW PATIENTS.kw.
17	((no or late or delay\$ or lack\$ or without) adj5 (antenatal\$ or prenatal\$ or pre-natal\$) adj3 care).tw,tx.
18	((no or unable or restrict\$ or limit\$) adj3 access\$ adj3 (care or healthcare or service?)).tw,tx.
19	(unbook\$ or un-book\$ or (late adj3 book\$)).tw,tx.
20	walk\$ in?.tw,tx.
21	((no or non) adj3 engag\$).tw,tx.
22	or/13-21
23	SOCIOECONOMIC FACTORS.kw.
24	MINORITY GROUPS.kw.
25	VULNERABLE POPULATIONS.kw.
26	HOMELESS PERSONS.kw.
27	HOMELESS YOUTHS.kw.
28	DRUG USERS.kw.

#	Searches
29	SEX WORKERS.kw.
30	"TRANSIENTS AND MIGRANTS".kw.
31	REFUGEES.kw.
32	"EMIGRANTS AND IMMIGRANTS".kw.
33	UNDOCUMENTED IMMIGRANTS.kw.
34	PRISONERS.kw.
35	PREGNANCY IN ADOLESCENCE.kw.
36	DOMESTIC VIOLENCE.kw.
37	SPOUSE ABUSE.kw.
38	BATTERED WOMEN.kw.
39	((socioeconomic or socio-economic) adj1 (factor? or status\$)).tw,tx.
40	(minorit\$ adj3 (ethnic or group?)).tw,tx.
41	(vulnerable adj3 (population? or people or person?)).tw,tx.
42	marginali\$.tw,tx.
43	(homeless\$ or home less).tw,tx.
44	no fixed abode?.tw,tx.
45	((drug? or substance?) adj3 (user? or used or using or misus\$)).tw,tx.
46	sex worker?.tw,tx.
47	prostitut\$.tw,tx.
48	migrant?.tw,tx.
49	refugee?.tw,tx.
50	immigrant?.tw,tx.
51	(asylum adj3 seek\$).tw,tx.
52	(recent\$ adj3 arriv\$).tw,tx.
53	traffick\$.tw,tx.
54	traveller?.tw,tx.
55	travelling population?.tw,tx.
56	prison\$.tw,tx.
57	((teen\$ or preteen\$ or adolescen\$) adj3 pregnan\$).tw,tx.
58	((domestic\$ or family) adj3 (violen\$ or abus\$)).tw,tx.
59	((spous\$ or wife or wives or wom?n or partner?) adj3 (abus\$ or batter\$)).tw,tx.
60	or/23-59
61	PREGNANCY, UNPLANNED.kw.
62	PREGNANCY, UNWANTED.kw.
63	((conceal\$ or hide? or hidden or hiding or unexpected or un-expected or unintended or un-intended or unsuspect\$ or un-suspect\$ or unaware or un-aware or unplanned or un-planned or unwanted or un-wanted) adj3 pregnan\$).tw,tx.
64	or/61-63
65	RISK ASSESSMENT.kw.
66	CRITICAL PATHWAY.kw.

#	Searches
67	CLINICAL PROTOCOLS.kw.
68	(risk? adj3 (assess\$ or stratif\$ or screen\$ or manag\$)).tw,tx.
69	((assess\$ or manag or monitor\$) adj5 (plan\$ or pathway? or protocol? or tool? or score? or scoring or system? or strateg\$)).tw,tx.
70	or/65-69
71	MEDICAL HISTORY TAKING.kw.
72	(history adj3 (take or taking)).tw,tx.
73	(history adj3 clinical).tw,tx.
74	(history adj3 (family or families or parent\$)).tw,tx.
75	((Record\$ or assess\$ or investigat\$ or indicat\$) adj5 ((Wom?n? adj3 age?) or gestational age? or ((medical or surgical or gyn?ecolog\$) adj3 condition?) or ((drug? or substance?) adj3 (user? or used or using or misus\$)) or obstetric\$ histor\$ or mental health or female genital mutilat\$ or FGM)).tw,tx.
76	PHYSICAL EXAMINATION.kw.
77	((clinical\$ or physical\$) adj3 (examin\$ or investigat\$ or observ\$)).tw,tx.
78	needle mark?.tw,tx.
79	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (abuse? or trauma\$)).tw,tx.
80	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (female genital mutilat\$ or FGM)).tw,tx.
81	HEMATOLOGIC TESTS.kw.
82	((blood or human immunodeficiency virus or HIV or hepatitis) adj3 test\$).tw,tx.
83	swab?.tw,tx.
84	(urine adj3 test?).tw,tx.
85	URINALYSIS.kw.
86	urinalys?s.tw,tx.
87	(urine adj3 culture?).tw,tx.
88	urine electrolyte level?.tw,tx.
89	ULTRASONOGRAPHY.kw.
90	ultrasonograph\$.tw,tx.
91	sonograph\$.tw,tx.
92	ultrasound.tw,tx.
93	sonogram?.tw,tx.
94	((measur\$ or record\$ or assess\$ or investigat\$) adj10 ((fetal or fetus\$) adj3 (grow\$ or size?))).tw,tx.
95	(placenta? adj3 site?).tw,tx.
96	COMMUNICATION BARRIERS.kw.
97	((communicat\$ or language?) adj3 barrier?).tw,tx.
98	TRANSLATING.kw.
99	(translat\$ adj3 (communicat\$ or language? or informat\$)).tw,tx.
100	translator?.tw,tx.
101	(difficult\$ adj3 english).tw,tx.



DRAFT FOR CONSULTATION

Intrapartum care for women with existing medical conditions or obstetric complications and their babies

#	Searches
102	(assess\$ adj3 (language? or english)).tw,tx.
103	(assess\$ adj3 mental\$ adj1 (health or capacit\$)).tw,tx.
104	(assess\$ adj3 learn\$ adj1 need?).tw,tx.
105	or/71-104
106	PATIENT CARE TEAM.kw.
107	((patient? or medical or health) adj1 care team).tw,tx.
108	((multidiscipline\$ or multi-disciplin\$ or multiprofession\$ or multi-profession\$ or integrat\$ or network\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).tw,tx.
109	((interdisciplin\$ or inter-disciplin\$ or interprofession\$ or inter-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).tw,tx.
110	((transdisciplin\$ or trans-disciplin\$ or transprofession\$ or trans-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).tw,tx.
111	mdt?.tw,tx.
112	Network\$ meeting?.tw,tx.
113	or/106-112
114	CARDIOTOGRAPHY.kw.
115	ELECTROCARDIOGRAPHY.kw.
116	cardiotocogra\$.tw,tx.
117	CTG.tw,tx.
118	electrocardiogra\$.tw,tx.
119	ECG.tw,tx.
120	EKG.tw,tx.
121	(electr\$ adj5 (f?etal or f?etus\$ or uter\$) adj5 (heart\$ or monitor\$ or assess\$)).tw,tx.
122	EFM.tw,tx.
123	or/114-122
124	AUSCULTATION.kw.
125	STETHOSCOPES.kw.
126	(auscultat\$ or IA or pin?ard\$ or fetoscop\$).tw,tx.
127	((f?etal or f?etus\$) adj3 stethoscop\$).tw,tx.
128	"listen\$ in".tw,tx.
129	or/124-128
130	((labo?r or partu\$ or intra?part\$ or peri?part\$) adj3 assess\$).tw,tx.
131	12 and (22 or 60 or 64) and 70
132	12 and (22 or 60 or 64) and 105
133	12 and (22 or 60 or 64) and 113
134	12 and (22 or 60 or 64) and 123 and 129
135	(22 or 60 or 64) and 130
136	or/131-135

**Database: Health Technology Assessment**

#	Searches
1	PERIPARTUM PERIOD/
2	PARTURITION/
3	LABOR, OBSTETRIC/
4	exp LABOR ONSET/
5	UTERINE CONTRACTION/
6	OBSTETRIC LABOR, PREMATURE/
7	DELIVERY, OBSTETRIC/
8	(labo?ring or partur\$ or intra?part\$ or peri?part\$).tw.
9	(labo?r adj3 (during or in or present\$ or onset)).tw.
10	((present\$ adj5 (hospital? or unit? or department?)) and (labo?r or pregnan\$ or childbirth? or birth\$)).tw.
11	((during or giving) adj3 (birth? or childbirth?)).tw.
12	or/1-11
13	*HEALTH SERVICES ACCESSIBILITY/
14	HEALTHCARE DISPARITIES/
15	HEALTH SERVICES MISUSE/
16	NO-SHOW PATIENTS/
17	((no or late or delay\$ or lack\$ or without) adj5 (antenatal\$ or prenatal\$ or pre-natal\$) adj3 care).tw.
18	((no or unable or restrict\$ or limit\$) adj3 access\$ adj3 (care or healthcare or service?)).tw.
19	(unbook\$ or un-book\$ or (late adj3 book\$)).tw.
20	walk\$ in?.tw.
21	((no or non) adj3 engag\$).tw.
22	no show.tw.
23	or/13-22
24	*SOCIOECONOMIC FACTORS/
25	MINORITY GROUPS/
26	VULNERABLE POPULATIONS/
27	HOMELESS PERSONS/
28	HOMELESS YOUTHS/
29	DRUG USERS/
30	SEX WORKERS/
31	"TRANSIENTS AND MIGRANTS"/
32	REFUGEES/
33	"EMIGRANTS AND IMMIGRANTS"/
34	UNDOCUMENTED IMMIGRANTS/
35	PRISONERS/
36	PREGNANCY IN ADOLESCENCE/
37	DOMESTIC VIOLENCE/

#	Searches
38	SPOUSE ABUSE/
39	BATTERED WOMEN/
40	((socioeconomic or socio-economic) adj1 (factor? or status\$)).tw.
41	(minorit\$ adj3 (ethnic or group?)).tw.
42	(vulnerable adj3 (population? or people or person?)).tw.
43	marginali\$.tw.
44	(homeless\$ or home less).tw.
45	no fixed abode?.tw.
46	((drug? or substance?) adj3 (user? or used or using or misus\$)).tw.
47	sex worker?.tw.
48	prostitut\$.tw.
49	migrant?.tw.
50	refugee?.tw.
51	immigrant?.tw.
52	(asylum adj3 seek\$).tw.
53	(recent\$ adj3 arriv\$).tw.
54	traffick\$.tw.
55	traveller?.tw.
56	travelling population?.tw.
57	prison\$.tw.
58	((teen\$ or preteen\$ or adolescen\$) adj3 pregnan\$).tw.
59	((domestic\$ or family) adj3 (violen\$ or abus\$)).tw.
60	((spous\$ or wife or wives or wom?n or partner?) adj3 (abus\$ or batter\$)).tw.
61	or/24-60
62	PREGNANCY, UNPLANNED/
63	PREGNANCY, UNWANTED/
64	((conceal\$ or hide? or hidden or hiding or unexpected or un-expected or unintended or un-intended or unsuspect\$ or un-suspect\$ or unaware or un-aware or unplanned or un-planned or unwanted or un-wanted) adj3 pregnan\$).tw.
65	or/62-64
66	RISK ASSESSMENT/
67	CRITICAL PATHWAY/
68	CLINICAL PROTOCOLS/
69	(risk? adj3 (assess\$ or stratif\$ or screen\$ or manag\$)).tw.
70	((assess\$ or manag or monitor\$) adj5 (plan\$ or pathway? or protocol? or tool? or score? or scoring or system? or strateg\$)).tw.
71	or/66-70
72	MEDICAL HISTORY TAKING/
73	(history adj3 (take or taking)).tw.
74	(history adj3 clinical).tw.
75	(history adj3 (family or families or parent\$)).tw.

#	Searches
76	((Record\$ or assess\$ or investigat\$ or indicat\$) adj5 ((Wom?n? adj3 age?) or gestational age? or ((medical or surgical or gyn?ecolog\$) adj3 condition?) or ((drug? or substance?) adj3 (user? or used or using or misus\$)) or obstetric\$ histor\$ or mental health or female genital mutilat\$ or FGM)).tw.
77	PHYSICAL EXAMINATION/
78	((clinical\$ or physical\$) adj3 (examin\$ or investigat\$ or observ\$)).tw.
79	needle mark?.tw.
80	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (abuse? or trauma\$)).tw.
81	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (female genital mutilat\$ or FGM)).tw.
82	exp HEMATOLOGIC TESTS/
83	((blood or human immunodeficiency virus or HIV or hepatitis) adj3 test\$).tw.
84	swab?.tw.
85	(urine adj3 test?).tw.
86	URINALYSIS/
87	urinalys?s.tw.
88	(urine adj3 culture?).tw.
89	urine electrolyte level?.tw.
90	exp ULTRASONOGRAPHY/
91	ultrasonograph\$.tw.
92	sonograph\$.tw.
93	ultrasound.tw.
94	sonogram?.tw.
95	((measur\$ or record\$ or assess\$ or investigat\$) adj10 ((fetal or fetus\$) adj3 (grow\$ or size?))).tw.
96	(placenta? adj3 site?).tw.
97	COMMUNICATION BARRIERS/
98	((communicat\$ or language?) adj3 barrier?).tw.
99	TRANSLATING/
100	(translat\$ adj3 (communicat\$ or language? or informat\$)).tw.
101	translator?.tw.
102	(difficult\$ adj3 english).tw.
103	(assess\$ adj3 (language? or english)).tw.
104	(assess\$ adj3 mental\$ adj1 (health or capacit\$)).tw.
105	(assess\$ adj3 learn\$ adj1 need?).tw.
106	or/72-105
107	PATIENT CARE TEAM/
108	((patient? or medical or health) adj1 care team).tw.
109	((multidiscipline\$ or multi-disciplin\$ or multiprofession\$ or multi-profession\$ or integrat\$ or network\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).tw.

DRAFT FOR CONSULTATION

Intrapartum care for women with existing medical conditions or obstetric complications and their babies

#	Searches
110	((interdisciplin\$ or inter-disciplin\$ or interprofession\$ or inter-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).tw.
111	((transdisciplin\$ or trans-disciplin\$ or transprofession\$ or trans-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).tw.
112	mdt?.tw.
113	Network\$ meeting?.tw.
114	or/107-113
115	CARDIOTOCOGRAPHY/
116	ELECTROCARDIOGRAPHY/
117	cardiotocogra\$.tw.
118	CTG.tw.
119	electrocardiogra\$.tw.
120	ECG.tw.
121	EKG.tw.
122	(electr\$ adj5 (f?etal or f?etus\$ or uter\$) adj5 (heart\$ or monitor\$ or assess\$)).tw.
123	EFM.tw.
124	or/115-123
125	exp AUSCULTATION/
126	STETHOSCOPES/
127	(auscultat\$ or IA or pin?ard\$ or fetoscop\$).tw.
128	((f?etal or f?etus\$) adj3 stethoscop\$).tw.
129	"listen\$ in".tw.
130	or/125-129
131	FETAL MONITORING/mt [Methods]
132	((labo?r or partu\$ or intra?part\$ or peri?part\$) adj3 assess\$).tw.
133	12 and (23 or 61 or 65) and 71
134	12 and (23 or 61 or 65) and 106
135	12 and (23 or 61 or 65) and 114
136	12 and (23 or 61 or 65) and 124 and 130
137	12 and (23 or 61 or 65) and 131
138	(23 or 61 or 65) and 132
139	or/133-138

**Database: Embase**

#	Searches
1	*PERINATAL PERIOD/
2	*BIRTH/
3	*LABOR/
4	exp *LABOR STAGE/

#	Searches
5	*UTERUS CONTRACTION/
6	*PREMATURE LABOR/
7	*OBSTETRIC DELIVERY/
8	*INTRAPARTUM CARE/
9	(labo?ring or partur\$ or intra?part\$ or peri?part\$).ti,ab.
10	(labo?r adj3 (during or in or present\$ or onset)).ti,ab.
11	((present\$ adj5 (hospital? or unit? or department?)) and (labo?r or pregnan\$ or childbirth? or birth\$)).ti,ab.
12	((during or giving) adj3 (birth? or childbirth?)).ti,ab.
13	or/1-12
14	HEALTH CARE DISPARITY/
15	PATIENT ATTENDANCE/
16	((no or late or delay\$ or lack\$ or without) adj5 (antenatal\$ or prenatal\$ or pre-natal\$) adj3 care).ab,ti.
17	((no or unable or restrict\$ or limit\$) adj3 access\$ adj3 (care or healthcare or service?)).ti,ab.
18	(unbook\$ or un-book\$ or (late adj3 book\$)).ti,ab.
19	walk\$ in?.ti,ab.
20	((no or non) adj3 engag\$).ti,ab.
21	no show.ti,ab.
22	or/14-21
23	*SOCIOECONOMICS/
24	MINORITY GROUP/
25	VULNERABLE POPULATION/
26	exp HOMELESS PERSON/
27	*DRUG DEPENDENCE/
28	SEX WORKER/
29	exp MIGRANT/
30	UNDOCUMENTED IMMIGRANT/
31	PRISONER/
32	ADOLESCENT PREGNANCY/
33	DOMESTIC VIOLENCE/
34	PARTNER VIOLENCE/
35	BATTERED WOMEN/
36	((socioeconomic or socio-economic) adj1 (factor? or status\$)).ti,ab.
37	(minorit\$ adj3 (ethnic or group?)).ti,ab.
38	(vulnerable adj3 (population? or people or person?)).ab,ti.
39	marginali\$.ti,ab.
40	(homeless\$ or home less).ti,ab.
41	no fixed abode?.ti,ab.
42	((drug? or substance?) adj3 (user? or used or using or misus\$)).ti,ab.

#	Searches
43	sex worker?.ti,ab.
44	prostitut\$.ti,ab.
45	migrant?.ti,ab.
46	refugee?.ti,ab.
47	immigrant?.ti,ab.
48	(asylum adj3 seek\$.ti,ab.
49	(recent\$ adj3 arriv\$.ti,ab.
50	traffick\$.ti,ab.
51	traveller?.ti,ab.
52	travelling population?.ti,ab.
53	prison\$.ti,ab.
54	((teen\$ or preteen\$ or adolescen\$) adj3 pregnan\$.ti,ab.
55	((domestic\$ or family) adj3 (violen\$ or abus\$)).ti,ab.
56	((spous\$ or wife or wives or wom?n or partner?) adj3 (abus\$ or batter\$)).ti,ab.
57	or/23-56
58	UNPLANNED PREGNANCY/
59	UNWANTED PREGNANCY/
60	((conceal\$ or hide? or hidden or hiding or unexpected or un-expected or unintended or un-intended or unsuspect\$ or un-suspect\$ or unaware or un-aware or unplanned or un-planned or unwanted or un-wanted) adj3 pregnan\$.ti,ab.
61	or/58-60
62	*RISK ASSESSMENT/
63	CLINICAL PATHWAY/
64	CLINICAL PROTOCOLS/
65	(risk? adj3 (assess\$ or stratif\$ or screen\$ or manag\$)).ti,ab.
66	((assess\$ or manag or monitor\$) adj5 (plan\$ or pathway? or protocol? or tool? or score? or scoring or system? or strateg\$)).ti,ab.
67	or/62-66
68	exp *ANAMNESIS/
69	(history adj3 (take or taking)).ti,ab.
70	(history adj3 clinical).ti,ab.
71	(history adj3 (family or families or parent\$)).ti,ab.
72	((Record\$ or assess\$ or investigat\$ or indicat\$) adj5 ((Wom?n? adj3 age?) or gestational age? or ((medical or surgical or gyn?ecolog\$) adj3 condition?) or ((drug? or substance?) adj3 (user? or used or using or misus\$)) or obstetric\$ histor\$ or mental health or female genital mutilat\$ or FGM)).ti,ab.
73	*PHYSICAL EXAMINATION/
74	((clinical\$ or physical\$) adj3 (examin\$ or investigat\$ or observ\$)).ti,ab.
75	needle mark?.ti,ab.
76	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (abuse? or trauma\$)).ti,ab.
77	((evidence or sign? or exam\$ or investigat\$ or observ\$) adj3 (female genital mutilat\$ or FGM)).ti,ab.

#	Searches
78	exp *BLOOD EXAMINATION/
79	((blood or human immunodeficiency virus or HIV or hepatitis) adj3 test\$).ti,ab.
80	swab?.ti,ab.
81	(urine adj3 test?).ti,ab.
82	exp *URINALYSIS/
83	urinalys?s.ti,ab.
84	(urine adj3 culture?).ti,ab.
85	urine electrolyte level?.ti,ab.
86	exp *ECHOGRAPHY/
87	ultrasonograph\$.ti,ab.
88	sonograph\$.ti,ab.
89	ultrasound.ti,ab.
90	sonogram?.ti,ab.
91	((measur\$ or record\$ or assess\$ or investigat\$) adj10 ((fetal or fetus\$) adj3 (grow\$ or size?))).ti,ab.
92	(placenta? adj3 site?).ti,ab.
93	((communicat\$ or language?) adj3 barrier?).ti,ab.
94	"TRANSLATING (LANGUAGE)"/
95	(translat\$ adj3 (communicat\$ or language? or informat\$)).ti,ab.
96	translator?.ti,ab.
97	(difficult\$ adj3 english).ti,ab.
98	(assess\$ adj3 (language? or english)).ti,ab.
99	(assess\$ adj3 mental\$ adj1 (health or capacit\$)).ti,ab.
100	(assess\$ adj3 learn\$ adj1 need?).ti,ab.
101	or/68-100
102	((patient? or medical or health) adj1 care team).ab,ti.
103	((multidisciplin\$ or multi-disciplin\$ or multiprofession\$ or multi-profession\$ or integrat\$ or network\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
104	((interdisciplin\$ or inter-disciplin\$ or interprofession\$ or inter-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
105	((transdisciplin\$ or trans-disciplin\$ or transprofession\$ or trans-profession\$) adj3 (team? or staff\$ or task force? or approach\$ or program\$ or system? or panel? or forum? or group? or care or healthcare or manag\$ or service? or working or model?)).ab,ti.
106	mdt?.ab,ti.
107	Network\$ meeting?.ti,ab.
108	or/102-107
109	CARDIOTOGRAPHY/
110	ELECTROCARDIOGRAPHY/ or FETUS ELECTROCARDIOGRAPHY/
111	cardiotocogra\$.ti,ab.

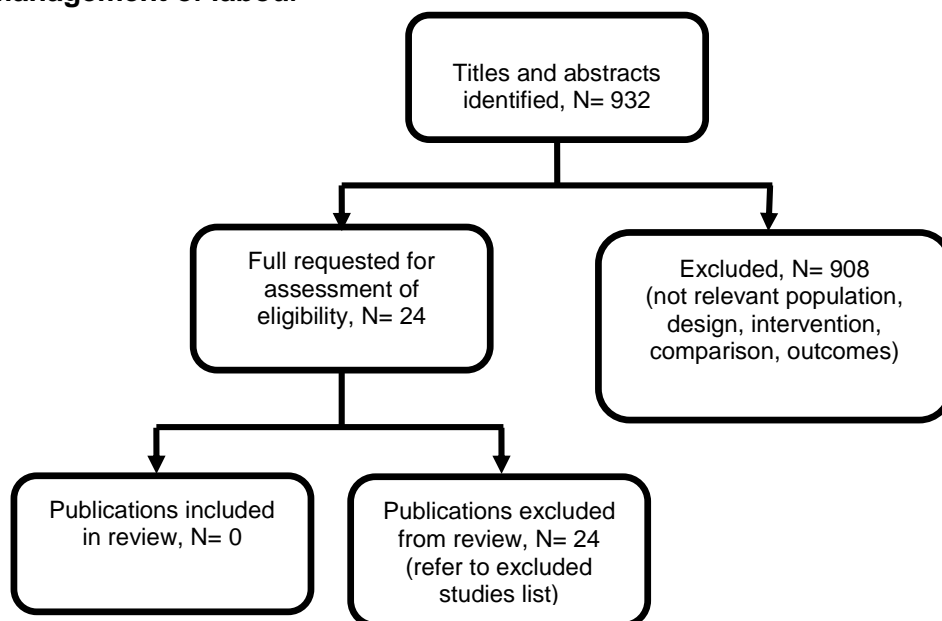


#	Searches
112	CTG.ti,ab.
113	electrocardiogra\$.ti,ab.
114	ECG.ti,ab.
115	EKG.ti,ab.
116	(electr\$ adj5 (f?etal or f?etus\$ or uter\$) adj5 (heart\$ or monitor\$ or assess\$)).ti,ab.
117	EFM.ti,ab.
118	or/109-117
119	exp AUSCULTATION/
120	exp STETHOSCOPE/
121	(auscultat\$ or IA or pin?ard\$ or fetoscop\$).ti,ab.
122	((f?etal or f?etus\$) adj3 stethoscop\$).ti,ab.
123	"listen\$ in".ti,ab.
124	or/119-123
125	((labo?r or partu\$ or intra?part\$ or peri?part\$) adj3 assess\$).ti,ab.
126	13 and (22 or 57 or 61) and 67
127	13 and (22 or 57 or 61) and 101
128	13 and (22 or 57 or 61) and 108
129	13 and (22 or 57 or 61) and 118 and 124
130	(22 or 57 or 61) and 125
131	or/126-130
132	limit 131 to english language
133	letter.pt. or LETTER/
134	note.pt.
135	editorial.pt.
136	CASE REPORT/ or CASE STUDY/
137	(letter or comment*).ti.
138	or/133-137
139	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
140	138 not 139
141	ANIMAL/ not HUMAN/
142	NONHUMAN/
143	exp ANIMAL EXPERIMENT/
144	exp EXPERIMENTAL ANIMAL/
145	ANIMAL MODEL/
146	exp RODENT/
147	(rat or rats or mouse or mice).ti.
148	or/140-147
149	132 not 148

## Appendix C – Clinical evidence study selection

### Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour

4 **Figure 1: Flow diagram of clinical article selection for intrapartum care for women who**  
 5 **present in labour having had no antenatal care – risk assessment and**  
 6 **management of labour**



7

## Appendix D – Excluded studies

### Intrapartum care for women who present in labour having had no antenatal care – risk assessment and management of labour

#### 1 Clinical studies

Study	Reason for exclusion
Anonymous,, Rapid HIV testing of women during labour delivers fast and accurate results of HIV status, Evidence-Based Healthcare and Public Health, 9, 30-31, 2005	Brief summary of a cohort study by Bulterys 2004 (also considered for this review). No relevant comparison or outcomes. Unclear whether population is relevant (women with no antenatal care), reported population is "women in labour with undocumented HIV status"

Study	Reason for exclusion
Archibong, E. I., Biophysical Profile Score in late pregnancy and timing of delivery, <i>International Journal of Gynecology and Obstetrics</i> , 64, 129-133, 1999	Population is pregnant women with no antenatal care presenting at an emergency room at 34 or more weeks of gestation (not necessarily in labour), however, the comparison is not relevant. This study compares women who had abnormal "Biophysical Profile Score" (BPS) to those who had normal BPS
Bulterys, M., Jamieson, D. J., O'Sullivan, M. J., Cohen, M. H., Maupin, R., Nesheim, S., Webber, M. P., Van Dyke, R., Wiener, J., Branson, B. M., Rapid HIV-1 testing during labor: A multicenter study, <i>Journal of the American Medical Association</i> , 292, 219-223, 2004	Population not relevant, more than half of the women had more than 5 antenatal visits, not clear how many had no visits
Chalermchockcharoenkit, A., Louisirirotnakul, S., Roongpisuthipong, A., Sirimai, K., Sutthritpong, P., Wasi, C., Rapid human immunodeficiency virus diagnostic test during the intrapartum period in pregnant women who did not receive antenatal care, <i>Journal of the Medical Association of Thailand</i> , 85, 703-8, 2002	Descriptive study on rapid HIV testing in labour for women with no antenatal care (Thailand). No relevant comparison or outcome
Chin, H., Chern, B. S. M., Pregnancy outcomes in HIV-positive women in Singapore, <i>Proceedings of Singapore Healthcare</i> , 23, 38-41, 2014	Population not relevant
Cook, N., Dattel, B., The role of the rapid HIV test in women with no prenatal care, <i>Primary Care Update for Ob/Gyns</i> , 6, 202-204, 1999	No relevant outcomes. This is a cost-effectiveness study of rapid HIV screening tests in labour for women with no antenatal care in which "effectiveness" is based on the diagnostic accuracy of the test
Cruz, A. C., Frentzen, B. H., Behnke, M., Hepatitis B: a case for prenatal screening of all patients, <i>American Journal of Obstetrics &amp; Gynecology</i> , 156, 1180-3, 1987	Population not relevant. No relevant comparison or outcome
Dennis, R.L., Negron, T.J., Lindsay, M., Nesheim, S.R., Lee, F.K., Jamieson, D.J., Rapid human immunodeficiency virus testing in labor and delivery: a comparison of implementation models between 2 hospitals, <i>Journal of Perinatal and Neonatal Nursing</i> , 21, 298-306, 2007	No relevant comparison or outcomes. Population is relevant only partly, the study also included pregnant women with antenatal care but unknown HIV status
Dola, C., Tran, T., Duong, C., Federico, C., DeNicola, N., Maupin, R., Rapid HIV testing and obstetrical characteristics of women with unknown HIV serostatus at time of labor and delivery, <i>Journal of the National Medical Association</i> , 102, 1158-64, 2010	No relevant comparison or outcome
Doughty, M., Locksmith, G. J., New rapid diagnostic tests for HIV infection, <i>Primary Care Update for Ob/Gyns</i> , 10, 131-134, 2003	A narrative update of rapid testing for HIV. No relevant data
Hillis, S. D., Rakhmanova, A., Vinogradova, E., Voronin, E., Yakovlev, A., Khaldeeva, N.,	No relevant comparison or outcome

Study	Reason for exclusion
Akatovala, N., Samarskaya, M., Volkova, G., Kissin, D., Jamieson, D. J., Glynn, M. K., Robinson, J., Miller, W. C., Rapid HIV testing, pregnancy, antiretroviral prophylaxis and infant abandonment in St Petersburg, International Journal of STD & AIDS, 18, 120-2, 2007	
Keenan-Lindsay, L., Yudin, M. H., No. 185-HIV Screening in Pregnancy, Journal of Obstetrics and Gynaecology Canada, 39, e54-e58, 2017	Summary of guidance on HIV screening in pregnancy by the Society of Obstetricians and Gynecologists of Canada (SOGC). The guidance includes a recommendation about offering an HIV test to women with no antenatal care, however, this recommendation was not based on clinical evidence and no relevant evidence is presented
Levison, J., Williams, L. T., Moore, A., McFarlane, J., Davila, J. A., Increasing use of rapid HIV testing in labor and delivery among women with no prenatal care: a local initiative, Maternal & Child Health Journal, 15, 822-6, 2011	Local initiative to increase the use of rapid HIV testing for women with no antenatal care. Not a comparative study. No relevant outcomes
Lynne, M., Keynote lecture-progress and challenges in prevention of mother-to-child HIV-1 transmission in the United States, Journal of the International AIDS Society, 17, 3-4, 2014	Conference abstract
Mor, Z., Sheffer, R., Chemtob, D., Mother-to-child HIV transmissions in Israel, 1985-2011, Epidemiology & Infection, 145, 1913-1921, 2017	Population, intervention, comparison not relevant
Moyer, V. A., U. S. Preventive Services Task Force*, Screening for HIV: U.S. Preventive Services Task Force Recommendation Statement.[Summary for patients in Ann Intern Med. 2013 Jul 2;159(1):I-36; PMID: 23817719], Annals of Internal Medicine, 159, 51-60, 2013	US Preventive Services Task Force guidance on HIV screening, among other things. No relevant evidence presented
Mrus, J. M., Tsevat, J., Cost-effectiveness of interventions to reduce vertical HIV transmission from pregnant women who have not received prenatal care, Medical Decision Making, 24, 30-9, 2004	Cost effectiveness of rapid HIV testing and treatment in labour for women with no antenatal care. No relevant clinical outcomes
Pai, N. P., Barick, R., Tulskey, J. P., Shivkumar, P. V., Cohan, D., Kalantri, S., Pai, M., Klein, M. B., Chhabra, S., Impact of round-the-clock, rapid oral fluid HIV testing of women in labor in rural India, PLoS Medicine / Public Library of Science, 5, e92, 2008	No relevant comparison or outcome. Population is only partly relevant, if at all (pregnant women in labour in rural India, most of whom had unknown HIV status)
Phili, R., Vardas, E., Evaluation of a rapid human immunodeficiency virus test at two community clinics in Kwazulu-Natal, South African Medical Journal. Suid-Afrikaanse Tydskrif Vir Geneeskunde, 92, 818-21, 2002	Population and comparison not relevant
Rovira, M. T., Antorn, M. T., Paya, A., Castellanos, E., Mur, A., Carreras, R., Human	Population not relevant (HIV-positive pregnant women)

Study	Reason for exclusion
immunodeficiency virus infection in pregnant women, transmission and zidovudine therapy, <i>European Journal of Obstetrics, Gynecology, &amp; Reproductive Biology</i> , 97, 46-9, 2001	
Rutstein, R. M., Volkman, K. M., Bonda, S., Shah, S. S., Ongoing Maternal-Child Transmission of HIV in an Urban Area, 2003-2012, <i>Hospital Pediatrics</i> , 5, 92-5, 2015	No relevant population, intervention, comparison
Son, S. L., Heyborne, K., Sheeder, J., Guiahi, M., When is illicit drug screening indicated in pregnant women on labor and delivery in Colorado?, <i>Obstetrics and Gynecology</i> , 129, 173S-174S, 2017	Conference abstract
Stringer, J. S., Rouse, D. J., Rapid testing and zidovudine treatment to prevent vertical transmission of human immunodeficiency virus in unregistered parturients: a cost-effectiveness analysis, <i>Obstetrics &amp; Gynecology</i> , 94, 34-40, 1999	Cost-effectiveness study of rapid HIV testing during labour for women with no antenatal care. No clinical evidence presented
Thaithumyanon, P., Limpongsanurak, S., Punnahitanon, S., Phanuphak, P., Virutamasen, P., Thisyakorn, U., Chaithongwongwatthana, S., Ubolyam, S., Ruxrungtham, K., Intrapartum and neonatal zidovudine treatment in reduction of perinatal HIV-1 transmission in Bangkok, <i>Journal of the Medical Association of Thailand</i> , 84, 1229-1234, 2001	Population only partly relevant (HIV-positive pregnant women without prior antiretroviral therapy, either without antenatal care or only in late pregnancy), no relevant comparison or outcomes

### Economic studies

- 2 See Supplement 2 (Health economics) for details of economic evidence reviews and health economic modelling.

## Appendix E – Clinical evidence tables

### Intrapartum care for women who present in labour having had no antenatal care – 6 risk assessment and management of labour

- 7 No clinical evidence was identified for this review and so there are no evidence tables.

## Appendix F – Forest plots

### Intrapartum care for women who present in labour having had no antenatal care – 10 risk assessment and management of labour

- 11 No meta-analysis was undertaken for this review and so there are no forest plots.

## **Appendix G – GRADE tables**

### **Intrapartum care for women who present in labour having had no antenatal care – 3 risk assessment and management of labour**

4 No clinical evidence was identified for this review and so there are no GRADE tables.

## **Appendix H – Economic evidence study selection**

### **Intrapartum care for women who present in labour having had no antenatal care – 7 risk assessment and management of labour**

8 See Supplement 2 (Health economics) for details of economic evidence reviews and health  
9 economic modelling.

## **Appendix I – Economic evidence tables**

### **Intrapartum care for women who present in labour having had no antenatal care – 12 risk assessment and management of labour**

13 See Supplement 2 (Health economics) for details of economic evidence reviews and health  
14 economic modelling.

## **Appendix J – Health economic evidence profiles**

### **Intrapartum care for women who present in labour having had no antenatal care – 17 risk assessment and management of labour**

18 See Supplement 2 (Health economics) for details of economic evidence reviews and health  
19 economic modelling.

## **Appendix K – Health economic analysis**

### **Intrapartum care for women who present in labour having had no antenatal care – 22 risk assessment and management of labour**

23 See Supplement 2 (Health economics) for details of economic evidence reviews and health  
24 economic modelling.

## **Appendix L – Research recommendations**

### **Intrapartum care for women who present in labour having had no antenatal care – 27 risk assessment and management of labour**

28 No research recommendations were made for this review.