NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline

Antenatal care

Draft for consultation, February 2021

This guideline covers the routine antenatal care that healthy women and their babies should receive. It aims to ensure that pregnant women are offered regular check-ups, information and support.

For simplicity of language, this guideline will use the term 'woman' throughout and includes all people who are pregnant, even if they may not identify as women. Similarly, where the term 'parents' is used, this should be taken to include anyone who has main responsibility for the care of a baby. This will often be the mother and the father, but many other family arrangements exist, including single parents.

This guideline will update NICE guideline CG62 (published March 2008).

Who is it for?

- Healthcare professionals
- Commissioners of antenatal care services
- Women using antenatal services, their partners, their families, and the public

What does it include?

- the draft recommendations
- recommendations for research
- rationale and impact sections that explain why the committee made the 2021 recommendations and how they might affect practice
- the guideline context.

Information about how the guideline was developed is on the guideline's webpage. This includes the evidence reviews, the scope, details of the committee and any declarations of interest.

The recommendations in this guideline were developed before the COVID-19 pandemic. Please tell us if there are any particular issues relating to COVID-19 that we should take into account when finalising the guideline for publication.

1

Contents

2

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Supporting women to make decisions about their care is important during pregnancy. Healthcare professionals should ensure that women have the information they need to make decisions and to give consent in line with General Medical Council (GMC) guidance and the 2015 Montgomery ruling.

Please note that the Royal College of Obstetricians and Gynaecologists has produced guidance on COVID-19 and pregnancy for all midwifery and obstetric services.

1.1 Organisation and delivery of antenatal care

Starting antenatal care

1.1.1 Ensure that antenatal care can be started in a variety of straightforward ways, depending on women's needs and circumstances, for example, by self-referral, referral by a GP or another healthcare professional, through school nurses, community centres or refugee hostels.

1.1.2 At the point of referral, provide early pregnancy information and an easy-to-complete referral form. Ensure that the materials are available in different languages or formats such as digital, printed, braille or Easy Read.

1.1.3 The referral form for women to start antenatal care should:

- enable healthcare professionals to identify women with:
  - specific health and social care needs
  - risk factors including those that can potentially be reduced, for example, smoking
- include contact details about the woman's GP.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on starting antenatal care.

Full details of the evidence and the committee's discussion are in evidence review F: accessing antenatal care.

Antenatal appointments

1.1.4 Offer a first antenatal (booking) appointment with a midwife to take place by 10+0 weeks of pregnancy.

1.1.5 If women contact or are referred to maternity services later than 9+0 weeks of pregnancy, offer a first antenatal (booking) appointment to take place within 2 weeks if possible.

1.1.6 Plan 10 routine antenatal appointments with a midwife or doctor for nulliparous women. (See schedule of appointments.) [LINK TO BE ADDED])

1.1.7 Plan 7 routine antenatal appointments with a midwife or doctor for parous women. (See schedule of appointments.) [LINK TO BE ADDED])

1.1.8 Offer additional or longer antenatal appointments if needed, depending on the woman's medical, social and emotional needs. Also see the NICE guidelines on pregnancy and complex social factors, intrapartum care for women with existing medical conditions or obstetric complications and their babies, hypertension in pregnancy, diabetes in pregnancy and twin and triplet pregnancy.

1.1.9 Ensure that reliable interpreting services are available if needed.

1.1.10 Those responsible for planning and delivering antenatal services should aim to provide continuity of carer.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on antenatal appointments.

Full details of the evidence and the committee's discussion are in:

- evidence review H: timing of first antenatal appointment
- evidence review I: number of antenatal appointments
- evidence review J: referral and delivery of antenatal care.

Involving partners

1.1.11 A woman can be supported by a partner during her pregnancy:

- involve partners according to the woman's wishes **and**
- explain to the woman that she is welcome to bring a partner to antenatal appointments.

1.1.12 Consider arranging the timing of antenatal classes so that the pregnant woman's partner can attend, if the woman wishes.

1.1.13 When planning and delivering antenatal services, ensure that antenatal units provide a welcoming environment for partners as well as pregnant women by, for example:

- providing information about how partners can be involved in supporting the woman during the pregnancy
- providing information about pregnancy for partners as well as pregnant women
- displaying positive images of partner involvement (for example, on notice boards and in waiting areas)
- providing seating in consultation rooms for both the woman and her partner
- considering opportunities for virtual attendance.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on involving partners.

Full details of the evidence and the committee's discussion are in evidence review C: involving partners and evidence review B: approaches to information provision.

1.2 Routine antenatal clinical care

Taking the woman's history

1.2.1 At the first antenatal (booking) appointment, ask the woman about:

- her medical history, obstetric history and family history
- previous or current mental health concerns, to identify possible depression and anxiety in line with the section on depression and anxiety disorders in the NICE guideline on antenatal and postnatal mental health
- any past or present severe mental illness or psychiatric treatment in line with the section on severe mental illness in the NICE guideline on antenatal and postnatal mental health
- current and recent medicines, including over-the-counter medicines and health supplements
- allergies
- her occupation, discussing any risks and concerns
- her home situation and the support she has
- factors such as nutrition and diet, physical activity, smoking, alcohol consumption and recreational drug use; see also recommendation 1.3.7.

1.2.2 Be aware that, according to the 2020 MBRRACE-UK reports on maternal and perinatal mortality, women and babies from some minority ethnic

backgrounds and those who live in deprived areas have an increased risk of death and may need closer monitoring. The reports showed that:

- compared with white women (8/100,000), the risk of maternal death during pregnancy and up to 6 weeks after birth is:
  - 2 times higher in Asian women (15/100,000; does not include Chinese women)
  - 3 times higher in mixed ethnicity women (25/100,000)
  - 4 times higher in black women (34/100,000) (my suggestion is to reorder the bullets by starting with this bullet)
- compared to white babies (34/10,000), the stillbirth rate is
  - more than twice as high in black babies (74/10,000)
  - around 50% higher in Asian babies (53/10,000)
- women living in the most deprived areas (15/100,000) are almost 3 times more likely to die compared with women living in the least deprived areas (6/100,000)
- the stillbirth rate increases according to the level of deprivation in the area the mother lives in, with almost twice as many stillbirths for women living in the most deprived areas (47/10,000) compared with the least deprived areas (26/10,000).

1.2.3 If the woman smokes or has stopped smoking within the past 2 weeks, refer her to NHS Stop Smoking Services in line with the NICE guideline on smoking: stopping in pregnancy and after childbirth.

1.2.4 Consider a clinical assessment by a doctor to detect cardiac conditions if there is a concern based on the woman's personal or family history.

1.2.5 If there are any medical concerns, refer the woman to an obstetrician or other relevant doctor.

1.2.6 Contact the woman's GP to share information about the pregnancy and potential concerns or complications during pregnancy.

1.2.7 Ask the woman about domestic abuse at the first antenatal (booking) appointment, or at the earliest opportunity when she is alone. Also see the

NICE guideline on domestic violence and abuse and the section on pregnant women who experience domestic abuse in the NICE guideline on pregnancy and complex social factors.

1.2.8 At the first antenatal (booking) appointment, discuss and assess the risk of female genital mutilation (FGM) and take appropriate action in line with UK government guidance on safeguarding women and girls at risk of FGM.

1.2.9 At every antenatal appointment:

- ask the woman about her general health and wellbeing
- ask the woman if she has any concerns she would like to discuss
- provide a safe environment and opportunities for the woman to discuss topics such as concerns at home, domestic abuse or mental health concerns
- reassess the pattern of care for the pregnancy
- identify women who need additional care.

1.2.10 At every antenatal contact, update the woman's antenatal records to include details of test results, examination findings and discussions.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on taking the woman's history.

Full details of the evidence and the committee's discussion are in evidence review G: content of antenatal appointments.

Examinations and investigations

1.2.11 At the first face-to-face antenatal appointment:

- measure the woman's height, weight and body mass index
- offer a blood test to check full blood count, blood group and rhesus D status.

1.2.12 At the first antenatal (booking) appointment, offer the following screening programmes:

- NHS infectious diseases in pregnancy screening programme (HIV, syphilis and hepatitis B)
- NHS sickle cell and thalassaemia screening programme
- NHS fetal anomaly screening programme.

1.2.13 Offer pregnant women an ultrasound scan to take place between 11+2 weeks and 14+1 weeks to:

- determine gestational age
- detect multiple pregnancy
- screen for Down's syndrome, Edward's syndrome and Patau's syndrome (see the NHS fetal anomaly screening programme).

1.2.14 Offer pregnant women an ultrasound scan to take place between 18+0 weeks and 20+6 weeks to:

- screen for fetal anomalies (see the NHS fetal anomaly screening programme)
- determine placental location.

1.2.15 At the antenatal appointment at 28 weeks, offer:

- anti-D prophylaxis to rhesus-negative women in line with NICE's technology appraisal guidance on routine antenatal anti-D prophylaxis for women who are rhesus D negative
- a blood test to check full blood count, blood group and antibodies.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on examinations and investigations.

Full details of the evidence and the committee's discussion are in evidence review G: content of antenatal appointments.

Venous thromboembolism

1.2.16 Assess the woman's risk factors for venous thromboembolism at the first antenatal (booking) appointment, and after any hospital admission or significant health event during pregnancy. Consider using guidance by an appropriate professional body, for example, the Royal College of Obstetricians and Gynaecologists' guideline on reducing the risk of venous thromboembolism during pregnancy.

For pregnant women who are admitted to a hospital or a midwife-led unit, see the section on interventions for pregnant women and women who gave birth or had a miscarriage or termination of pregnancy in the past 6 weeks in the NICE guideline on venous thromboembolism in over 16s.

1.2.17 For women at risk of venous thromboembolism, consider referral to an obstetrician.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on venous thromboembolism.

Full details of the evidence and the committee's discussion are in evidence review N: risk factors for venous thromboembolism in pregnancy.

Gestational diabetes

1.2.18 At the first antenatal (booking) appointment, assess the woman's risk factors for gestational diabetes in line with the recommendations on gestational diabetes risk assessment in the NICE guideline on diabetes in pregnancy.

1.2.19 If a woman is at risk of gestational diabetes, refer her for an oral glucose tolerance test to take place between 24+0 weeks and 28+0 weeks in line with the recommendations on gestational diabetes risk assessment and the recommendations on gestational diabetes testing in the NICE guideline on diabetes in pregnancy.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on gestational diabetes.

Full details of the evidence and the committee's discussion are in evidence review G: content of antenatal appointments.

Pre-eclampsia and hypertension in pregnancy

1.2.20 At the first antenatal (booking) appointment, assess the woman's risk factors for pre-eclampsia, and advise those at risk to take aspirin in line with the section on antiplatelet agents in the NICE guideline on hypertension in pregnancy.

1.2.21 Measure and record the woman's blood pressure at every routine face-to-face antenatal appointment using a device validated for use in pregnancy, and following the recommendations on measuring blood pressure in the NICE guideline on hypertension in adults.

1.2.22 For women under 20+0 weeks with hypertension, follow the recommendations on the management of chronic hypertension in pregnancy in the NICE guideline on hypertension in pregnancy.

1.2.23 Refer women over 20+0 weeks with a first episode of hypertension (blood pressure of 140/90 mmHg or higher) to secondary care to be seen within 24 hours. See the recommendations on diagnosing hypertension in the NICE guideline on hypertension in adults.

1.2.24 Urgently refer women with severe hypertension (blood pressure of 160/110 mmHg or higher) to secondary care to be seen on the same day. The urgency of the referral should be determined by an overall clinical assessment.

1.2.25 Offer a urine dipstick test for proteinuria at every routine face-to-face antenatal appointment.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on pre-eclampsia and hypertension in pregnancy.

Full details of the evidence and the committee's discussion are in evidence review K: identification of hypertension in pregnancy and evidence review G: content of antenatal appointments.

Monitoring fetal growth and wellbeing

1.2.26 Carry out a risk assessment for fetal growth restriction at the first antenatal (booking) appointment, and again in the second trimester. Consider using guidance by an appropriate professional or national body, for example, the Royal College of Obstetricians and Gynaecologists' guideline on the investigation and management of the small-for-gestational-age fetus or the NHS saving babies' lives care bundle version 2.

1.2.27 Offer symphysis fundal height measurement at each antenatal appointment after 24+0 weeks for women with a singleton pregnancy unless the woman is having regular growth scans.

1.2.28 If there are concerns that the baby is large for gestational age based on symphysis fundal height measurements, consider an ultrasound scan for fetal growth.

1.2.29 If there are concerns that the baby is small for gestational age based on symphysis fundal height measurements, perform an ultrasound scan for fetal growth, the urgency of which may depend on additional clinical findings, for example, fetal movements and maternal blood pressure.

1.2.30 Do not routinely offer ultrasound scans after 28 weeks for uncomplicated singleton pregnancies.

1.2.31 Discuss the topic of babies' movements with the woman after 24+0 weeks, and:

- ask if she has any concerns about her baby's movements at each antenatal contact after 24+0 weeks
- advise her to contact maternity services at any time of day or night if she has any concerns about her baby's movements or she notices reduced fetal movements after 24+0 weeks
- assess the woman and baby if there are any concerns about the baby's movements.

1.2.32 Service providers should recognise that the use of structured fetal movement awareness packages, such as the one studied in the AFFIRM trial, has not been shown to reduce stillbirth rates.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on monitoring fetal growth and wellbeing.

Full details of the evidence and the committee's discussion are in:

- evidence review O: monitoring fetal growth
- evidence review P: fetal movement monitoring
- evidence review Q: routine third trimester ultrasound scan for growth.

Breech presentation

1.2.33 Perform abdominal palpation at all appointments after 36+0 weeks to identify possible breech presentation for women with a singleton pregnancy.

1.2.34 If breech presentation is suspected on abdominal palpation, perform an ultrasound scan to confirm it.

1.2.35 For women with an uncomplicated singleton pregnancy with breech presentation confirmed after 36+0 weeks:

- explain to women that turning the baby from a breech to a head down position makes a normal, head-first vaginal birth more likely **and**

- offer external cephalic version.

Also see the recommendations on breech presentation in the NICE guideline on caesarean section, and the recommendations on breech presenting in labour in the NICE guideline on intrapartum care for women with existing medical conditions or obstetric complications and their babies.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on breech presentation.

Full details of the evidence and the committee's discussion are in evidence review L: identification of breech presentation and evidence review M: management of breech presentation.

1.3 Information and support for pregnant women and their partners

Communication with women

1.3.1 When giving women (and their partners) information about antenatal care, use clear language, and tailor the timing, content and delivery of information to the needs and preferences of the woman and her stage of pregnancy. Information should support shared decision making between the woman and her healthcare team, and be:

- offered on a one-to-one basis
- supplemented by group discussions (women only or women and partners)
- supplemented by written information in a suitable format, for example, digital, printed, braille or Easy Read
- offered throughout the woman's care
- individualised and sensitive
- supportive and respectful

- evidence-based and consistent
- translated into other languages if needed.

For more guidance on communication, providing information (including different formats and languages), and shared decision making, see the NICE guideline on patient experience in adult NHS services and the NHS Accessible Information Standard.

1.3.2 Explore the knowledge and understanding that the woman (and her partner) has about each topic to individualise the discussion.

1.3.3 Check that the woman understands the information she has been given, and how it relates to her. Provide regular opportunities for her to ask questions, and set aside enough time to discuss any concerns.

1.3.4 Follow the NICE guideline on pregnancy and complex social factors for women who may need additional support, for example:

- women who misuse substances
- recent migrants, asylum seekers or refugees, or women who have difficulty reading or speaking English
- young women aged under 20
- women who experience domestic abuse.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on communication with women.

Full details of the evidence and the committee's discussion are in:

- evidence review B: approaches to information provision
- evidence review A: information provision
- evidence review J: referral and delivery of antenatal care.

Information about antenatal care

1.3.5 At the first antenatal (booking) appointment, discuss antenatal care with the woman (and her partner) and provide her schedule of antenatal appointments.

1.3.6 At the first antenatal (booking) appointment, discuss and give information on:

- what antenatal care involves and why it is important
- the planned number of antenatal appointments
- where antenatal appointments will take place
- which healthcare professionals will be involved in antenatal appointments
- how to contact the midwifery team for non-urgent advice
- how to contact the maternity service about urgent concerns, such as pain and bleeding
- how the baby develops during pregnancy
- what to expect at each stage of the pregnancy
- emotional and relationship changes during the pregnancy
- how the woman and her partner can support each other
- immunisation for flu and pertussis (whooping cough) during pregnancy, in line with the NICE guideline on flu vaccination and the Public Health England Green Book on immunisation against infectious disease
- reducing the risk of common infections, for example, encouraging hand washing
- safe use of medicines and health supplements during pregnancy
- resources and support for expectant and new parents
- how to get in touch with local or national peer support services.

1.3.7 At the first antenatal (booking) appointment, discuss and give information about nutrition and diet, physical activity, smoking, alcohol consumption and recreational drug use in a non-judgemental, compassionate and personalised way. See the NICE guidelines on maternal and child nutrition, vitamin D, weight management before, during and after pregnancy, smoking: stopping in pregnancy and after childbirth, the

section on pregnant women who misuse substances (alcohol and/or drugs) in the NICE guideline on pregnancy and complex social factors, and the UK Chief Medical Officers' low-risk drinking guidelines.

1.3.8 Throughout the pregnancy, discuss and give information on:

- emotional and relationship changes during the pregnancy
- how the woman and her partner can support each other
- resources and support for expectant and new parents
- how the parents can bond with their newborn baby and the importance of emotional attachment (also see the section on xxx in the NICE guideline on postnatal care [LINK TO GUIDELINE UPDATE TO BE ADDED])
- the results of any blood or screening tests from previous appointments.

1.3.9 After 24 weeks, discuss babies' movements (see also recommendation 1.2.31).

1.3.10 Before 28 weeks, start talking to the woman about her birth preferences and the implications, benefits and risks of these (see the section on choosing planned place of birth in the NICE guideline on intrapartum care for healthy women and babies and the section on planning mode of birth in the NICE guideline on caesarean section.

1.3.11 After 28 weeks, discuss and give information on:

- preparing for labour and birth, including information about coping with pain in labour and creating a birth plan
- recognising active labour
- the postnatal period, including:
  - care of the new baby
  - the baby's feeding
  - vitamin K prophylaxis
  - postnatal self-care
  - awareness of 'baby blues' and postnatal depression.

Also see the NICE guideline on postnatal care [LINK TO GUIDELINE UPDATE TO BE ADDED])

1.3.12 At each appointment from 36 weeks, continue the discussions and confirm the woman's birth preferences, discussing the implications, benefits and risks.

1.3.13 At each appointment from 38 weeks, discuss prolonged pregnancy and options on how to manage this, in line with the NICE guideline on inducing labour.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on information about antenatal care.

Full details of the evidence and the committee's discussion are in:

- evidence review A: information provision
- evidence review B: approaches to information provision
- evidence review C: involving partners
- evidence review D: peer support
- evidence review G: content of antenatal appointments
- evidence review J: referral and delivery of antenatal care
- evidence review P: fetal movement monitoring.

Antenatal classes

1.3.14 Offer nulliparous women (and their partners) antenatal classes that include topics such as:

- preparing for labour and birth
- supporting each other throughout the pregnancy
- how to care for the baby
- how the parents can bond with their newborn baby and the importance of emotional attachment (also see the section on xxx in the NICE

guideline on postnatal care [LINK TO GUIDELINE UPDATE TO BE ADDED])

- planning and managing their baby's feeding (also see the section on xxx in the NICE guideline on postnatal care [LINK TO GUIDELINE UPDATE TO BE ADDED]).

1.3.15 Consider antenatal classes for multiparous women (and their partners) if they could benefit from attending (for example, if they have had a long gap between pregnancies, or have never attended antenatal classes before).

1.3.16 Ensure that antenatal classes are welcoming, accessible and adapted to meet the needs of local communities. Also see the section on young pregnant women aged under 20 in the NICE guideline on pregnancy and complex social factors.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on antenatal classes.

Full details of the evidence and the committee's discussion are in evidence review E: antenatal classes and evidence review B: approaches to information provision.

Peer support

1.3.17 Discuss the potential benefits of peer support with pregnant women (and their partners), and explain how it may:

- provide practical support
- help to build confidence
- reduce feelings of isolation.

1.3.18 Give pregnant women (and their partners) information about how to access local and national peer support services.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on peer support.

Full details of the evidence and the committee's discussion are in evidence review D: peer support.

Sleep position

1.3.19 Advise women to avoid going to sleep on their back after 28 weeks of pregnancy and to consider using pillows, for example, to maintain this position while sleeping.

1.3.20 Explain to the woman that there may be a link between sleeping on her back and stillbirth in late pregnancy (after 28 weeks).

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on sleep position.

Full details of the evidence and the committee's discussion are in evidence review W: maternal sleep position during pregnancy.

1.4 Interventions for common problems during pregnancy

Nausea and vomiting

1.4.1 Reassure women that mild to moderate nausea and vomiting are common in pregnancy, and likely to resolve before 16 to 20 weeks.

1.4.2 For pregnant women with mild to moderate nausea and vomiting, suggest ginger as a non-pharmacological treatment.

1.4.3 Discuss with women the advantages and disadvantages of different pharmacological treatments for nausea and vomiting in pregnancy. Take into account the woman's preferences, her experience with medicines in previous pregnancies (if applicable), any comorbidities, and any

medicines she is currently taking. See table 1 to support shared decision making.

Table 1 Advantages and disadvantages of different pharmacological treatments for nausea and vomiting in pregnancy

Information in this table is based on evidence review R: nausea and vomiting in pregnancy, UK Teratology Information Service monographs, the British National Formulary (BNF) and manufacturers' summaries of product characteristics (SPCs). See SPCs and the BNF for other possible side effects, cautions and contraindications. Note that there is a background rate of birth defects, miscarriage and stillbirth even when no medicines are taken in pregnancy.

Pharmacological treatment (in alphabetical order)	Advantages	Disadvantages
Chlorpromazine	• Established practice and used for many years. • Available evidence does not suggest an increased risk of birth defects.	• No randomised controlled trial (RCT) evidence on nausea and vomiting in pregnancy. • Not licensed for nausea and vomiting in pregnancy; manufacturers caution against its use in pregnancy unless considered essential. • Extrapyramidal effects (such as restlessness, trembling, muscle stiffness or spasm) and/or withdrawal symptoms have sometimes been reported in newborn babies when it was taken in the third trimester.
Cyclizine	• Established practice and used for many years. • Available evidence does not suggest an increased risk of birth defects.	• No RCT evidence on cyclizine alone for nausea and vomiting in pregnancy. • Older, low quality evidence showed a benefit in relief from nausea and vomiting from a combination product of cyclizine with pyridoxine (but this is not available in the UK). • Not licensed for nausea and vomiting in pregnancy; manufacturers say its use in pregnancy is not advised because definitive data are absent.

Pharmacological treatment (in alphabetical order)	Advantages	Disadvantages
		• Use in the latter part of the third trimester may cause side effects in newborn babies such as irritability, paradoxical excitability and tremor.
Doxylamine/pyridoxine (combination drug)	• Specifically licensed for nausea and vomiting in pregnancy. • Some low or very low quality clinical evidence showing symptom relief in pregnancy compared with placebo. • Available evidence does not suggest an increased risk of birth defects.	• Less likely to be effective than ondansetron, but the clinical evidence base is of moderate or low quality and small study size.
Metoclopramide	• Established practice as second-line treatment in pregnancy. • High-quality clinical evidence showed clinical benefit on overall symptom relief, nausea intensity, and vomiting intensity in pregnancy compared with placebo. • Available evidence does not suggest an increased risk of birth defects. • Manufacturers' patient information leaflets state that it can be used in pregnancy if necessary, which might be reassuring for some women.	• Not licensed specifically for nausea and vomiting in pregnancy; manufacturers state it can be used in pregnancy if clinically needed. • Not recommended for more than 5 days' use because of risk of neurological side effects in the woman. • Not recommended in people aged 18 or younger (except as a second-line option for postoperative nausea and vomiting or chemotherapy-induced nausea and vomiting). • Manufacturers recommend against using it towards the end of pregnancy because of the potential for causing extrapyramidal effects in newborn babies.
Ondansetron	• Established practice as treatment for severe nausea and vomiting in pregnancy and hyperemesis gravidarum. • Low-quality clinical evidence showing benefit on vomiting intensity, and moderate quality evidence showing benefit on nausea and vomiting	• Not licensed for use in nausea and vomiting in pregnancy. • Manufacturers state it should not be used in the first trimester (also stated in manufacturers' patient information leaflets). • Increased risk of the baby being born with an orofacial cleft (cleft lip and/or cleft palate). This is an increase of

Pharmacological treatment (in alphabetical order)	Advantages	Disadvantages
	symptoms compared with doxylamine/pyridoxine combination.	3 additional cases per 10,000 from 11 in 10,000, so even with ondansetron, 9,986 out of 10,000 babies would not have this. • Conflicting evidence about risk of cardiac defects in babies.
Prochlorperazine	• Established practice and used for many years. • Available evidence does not suggest an increased risk of birth defects.	• No RCT evidence on nausea and vomiting in pregnancy. • Not licensed for nausea and vomiting in pregnancy; manufacturers caution against its use in pregnancy unless considered essential (Buccastem M brand is contraindicated in pregnancy). • Some manufacturers' patient information leaflets state it should not be taken during pregnancy, which might be concerning for some women. • Extrapyramidal effects and/or withdrawal symptoms have sometimes been reported in newborn babies when it was taken in the third trimester.
Promethazine	• Established practice and used for many years. • Limited, moderate quality evidence found no clinically important difference in vomiting frequency compared with a combination product of metoclopramide with pyridoxine (not available in the UK). • Available evidence does not suggest an increased risk of birth defects.	• Not licensed for nausea and vomiting in pregnancy; manufacturers caution against use in pregnancy unless considered essential. • Use in the latter part of the third trimester may cause side effects in newborn babies including irritability, paradoxical excitability and tremor.

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Quality of evidence referred to in the table is based on GRADE (grading of recommendations, assessment, development and evaluations):

- High: Further research is very unlikely to change the level of confidence in the estimate of effect.
- Moderate: Further research is likely to have an important impact on the level of confidence in the estimate of effect and may change the estimate.
- Low: Further research is very likely to have an important impact on the level of confidence in the estimate of effect and is likely to change the estimate.
- Very low: The estimate of effect is very uncertain.

1.4.4 For pregnant women with hyperemesis gravidarum:

- offer pharmacological antiemetics and intravenous fluids (ideally on an outpatient basis)
- consider acupressure.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on nausea and vomiting.

Full details of the evidence and the committee's discussion are in evidence review R: management of nausea and vomiting in pregnancy.

Heartburn

1.4.5 Give information about lifestyle and dietary changes to pregnant women with heartburn in line with the section on common elements of care in the NICE guideline on gastro-oesophageal reflux disease and dyspepsia in adults.

1.4.6 Consider a trial of antacid or alginate for pregnant women with heartburn.

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on heartburn.

Full details of the evidence and the committee's discussion are in evidence review S: management of heartburn in pregnancy.

Symptomatic vaginal discharge

1.4.7 Tell pregnant women who have vaginal discharge that this is common during pregnancy, but if it is accompanied by symptoms such as itching, soreness, an unpleasant smell or pain on passing urine, there may be an infection that needs to be investigated and treated.

1.4.8 Consider carrying out a vaginal swab for pregnant women with symptomatic vaginal discharge if there is doubt about the cause.

1.4.9 If a sexually transmitted infection is suspected, consider arranging appropriate investigations.

1.4.10 Offer vaginal imidazole (such as clotrimazole or econazole) to treat vaginal candidiasis in pregnant women.

1.4.11 Consider oral or vaginal antibiotics to treat bacterial vaginosis in pregnant women in line with the NICE guideline on antimicrobial stewardship.

For a short explanation of why the committee made the recommendations and how they might practice, see the rationale and impact section on symptomatic vaginal discharge.

Full details of the evidence and the committee's discussion are in evidence review T: management of symptomatic vaginal discharge in pregnancy.

Pelvic girdle pain

1.4.12 For women with pregnancy-related pelvic girdle pain, consider referral to physiotherapy services for:

- exercise advice **and/or**
- a non-rigid lumbopelvic belt.

For a short explanation of why the committee made the recommendation and how it might affect practice, see the rationale and impact section on pelvic girdle pain.

Full details of the evidence and the committee's discussion are in evidence review U: management of pelvic girdle pain in pregnancy.

Unexplained vaginal bleeding after 13 weeks

1.4.13 Offer anti-D immunoglobulin to women who present with vaginal bleeding after 13 weeks of pregnancy if they are:

- rhesus D-negative **and**
- at risk of isoimmunisation.

1.4.14 For pregnant women who present with unexplained vaginal bleeding, assess whether to admit them to hospital, taking into account:

- the risk of placental abruption
- the risk of preterm delivery
- the extent of vaginal bleeding
- the woman's ability to attend secondary care in an emergency.

1.4.15 For pregnant women who present with unexplained vaginal bleeding, carry out placental localisation by ultrasound if the placental site is not known.

1.4.16 For pregnant women with unexplained vaginal bleeding who are admitted to hospital, consider corticosteroids for fetal lung maturation if there is an increased risk of preterm birth within 48 hours. Take into account gestational age (see the section on maternal corticosteroids in the NICE guideline on preterm labour and birth).

For a short explanation of why the committee made the recommendations and how they might affect practice, see the rationale and impact section on unexplained vaginal bleeding after 13 weeks.

Full details of the evidence and the committee's discussion are in evidence review V: management of unexplained vaginal bleeding in pregnancy.

Terms used in this guideline

This section defines terms that have been used in a particular way for this guideline.

Bonding and emotional attachment

Bonding is the positive emotional and psychological connection that the parent develops with the baby.

Emotional attachment refers to the relationship between the baby and parent, driven by innate behaviour and which ensures the baby's proximity to the parent and safety. Its development is a complex and dynamic process dependent on sensitive and emotionally attuned parent interactions supporting healthy infant psychological and

social development and a secure attachment. Insecure attachment styles, by contrast, predispose to chronic psychosocial problems. Babies form attachments with a variety of caregivers but the first, and usually most significant of these, will be with the mother and/or father.

Continuity of carer

Having continuity of carer means that a trusting relationship can be developed between the woman and the healthcare professional who cares for her. Better Births, a report by the National Maternity Review, defines continuity of carer as consistency in the midwifery team (between 4 and 8 individuals) that provides care for the woman and her baby throughout pregnancy, labour and the postnatal period. A named midwife coordinates the care and takes responsibility for ensuring the needs of the woman and her baby are met throughout the antenatal, intrapartum and postnatal periods.

For the purpose of this guideline, the definition of continuity of carer in the Better Births report has been adapted to include not just the midwifery team but any healthcare team involved in the care of the woman and her baby, including the health visitor team. It emphasises the importance of effective information transfer between the individuals within the team. For more information, see the NHS Implementing Better Births: continuity of carer.

Partner

Partner refers to the woman's chosen supporter. This could be the baby's father, the woman's partner, family member or friend, or anyone who the woman feels supported by and wishes to involve in her antenatal care.

Structured fetal movement awareness packages

The structured fetal movement awareness package described in the Awareness of fetal movements and care package to reduce fetal mortality (AFFIRM) trial consisted of:

- an e-learning education package for all clinical staff about the importance of a recent change in the frequency of fetal movements and how to manage reduced fetal movements

- a leaflet given to pregnant women at 20 weeks of pregnancy to raise awareness of the importance of monitoring fetal movements and reporting reduced movements
- a structured management plan for hospitals following reporting of reduction in fetal movement including cardiotocography, measurement of liquor volume and a growth scan (umbilical artery doppler was encouraged if available).

Recommendations for research

The guideline committee has made the following recommendations for research.

Key recommendations for research

1 Hospitalisation of pregnant women with unexplained vaginal bleeding

What is the clinical and cost effectiveness of hospitalisation compared with outpatient management for pregnant women with unexplained vaginal bleeding?

For a short explanation of why the committee made this recommendation, see the rationale section on unexplained vaginal bleeding.

Full details of the research recommendation are in evidence review V: management of unexplained vaginal bleeding in pregnancy.

2 Medications for mild to moderate nausea and vomiting in pregnancy

What is the clinical and cost effectiveness of medication for women with nausea and vomiting in pregnancy?

For a short explanation of why the committee made this recommendation, see the rationale section on nausea and vomiting.

Full details of the research recommendation are in evidence review R: management of nausea and vomiting in pregnancy.

3 Models of antenatal care

What is the clinical and cost effectiveness of different models of antenatal care with varying numbers and times of appointment, and should different models be used for groups at risk of worse outcomes?

For a short explanation of why the committee made this recommendation, see the rationale sections on starting antenatal care and antenatal appointments.

Full details of the research recommendation are in evidence review F: accessing antenatal care.

4 Identification of breech presentation

What is the clinical and cost effectiveness of routine ultrasound from 36+0 weeks compared with selective ultrasound in identifying breech presentation?

For a short explanation of why the committee made this recommendation, see the rationale section on breech presentation.

Full details of the research recommendation are in evidence review L: identification of breech presentation.

5 Management of hyperemesis gravidarum

What is the clinical and cost effectiveness of corticosteroids for women with hyperemesis gravidarum?

For a short explanation of why the committee made this recommendation, see the rationale section on nausea and vomiting.

Full details of the research recommendation are in evidence review R: management of nausea and vomiting in pregnancy.

Rationale and impact

These sections briefly explain why the committee made the recommendations and how they might affect practice.

Starting antenatal care

Recommendations 1.1.1 to 1.1.3

Why the committee made the recommendations

No relevant evidence was identified so the committee made the recommendations based on their knowledge and experience, and also made a research recommendation about how to start antenatal care. The committee discussed the ways in which women should be able to access antenatal care, but agreed that the configuration details would depend on local arrangements.

The committee agreed that antenatal service planning should take into account women's needs and circumstances, and should not discriminate against, for example, limited ability to use and access online services, limited skills in English language or in literacy, or not being registered with a GP surgery. The committee were aware that for some women in vulnerable situations or with limited English language skills, there may be a delay in accessing and starting antenatal care.

The booking appointment should occur by 10 weeks of pregnancy but the initial contact and referral might have happened several weeks earlier, so the committee agreed that the referral contact should include provision of early pregnancy information, for example, public health messages for the woman about folic acid supplementation or stopping smoking. It is also important to identify women with specific needs or risk factors early on so that appropriate care can be provided from the beginning.

The committee agreed that it is important to have the contact details for the woman's GP to ensure that information can be shared between primary care and maternity services so that care is provided according to the woman's individual needs, and to identify potential safeguarding issues.

How the recommendations might affect practice

There is variation in current practice in how different women can access antenatal care and the time between women's first contact with a healthcare professional and subsequent steps. Enabling women to start their antenatal care through various routes, including school nurses, community centres or refugee hostels may have

some implications on resources; however, these should be outweighed by the benefits of timely antenatal care. The recommendations should improve timely access to antenatal care for women in various situations, and improve early recognition of specific needs and risk factors so that care can be planned.

Return to recommendations

Antenatal appointments

Recommendations 1.1.4 to 1.1.10

Why the committee made the recommendations

There was no new evidence to change from the existing recommended practice of women having their first antenatal (booking) appointment by 10+0 weeks.

Some women only contact or are referred to maternity services after 9+0 weeks. This ‘late booking’ may be particularly common among some socially vulnerable women or women with limited English language skills. Based on their knowledge and experience, the committee agreed that women who contact or are referred to maternity services after 9+0 weeks should have a booking appointment ideally within 2 weeks so that early pregnancy care, including information provision and screenings, can happen in the right time.

There was no new evidence that led the committee to change from the existing recommended practice of arranging 10 appointments for nulliparous women and 7 appointments for parous women. Instead, the committee made a research recommendation about the ideal number and timing of antenatal appointments, including consideration for groups at higher risk of adverse outcomes.

The evidence on women’s experience and satisfaction in relation to the number of antenatal appointments was mixed, but the committee agreed the importance of being flexible to meet women's needs.

There was evidence that women who needed to use interpreters found the service to be unreliable and inconsistent, so the committee made a specific recommendation about this.

There was good evidence that women value having the same midwife throughout their antenatal care although the review did not look at the benefits and harms of continuity of carer in relation to clinical- and cost-effectiveness outcomes. The NHS England's report Better Births: improving outcomes of maternity services in England – a five year forward view for maternity care recommends continuity of carer by 1 midwife who is part of a small team of midwives based in the community, so that they could get to know the woman and provide support to her throughout pregnancy all the way to the postnatal period.

How the recommendations might affect practice

The timing of the booking appointment and number of appointments reflect current clinical practice. The recommendation about women who do not have a booking appointment arranged by 9+0 weeks may lead to more women attending booking appointments before 11 weeks and it may also reduce how long it takes to secure a booking appointment. However, this may also be challenging for services to organise.

The recommendation about offering additional or longer antenatal appointments depending on need may lead to a small increase in the number of antenatal appointments, but this is likely to be negligible and potentially have benefits later on.

In current practice, providing continuity of carer can be difficult to achieve and there can be significant resource implications; however, the recommendation reflects NHS England's recommendations.

The committee agreed that the recommendations would not result in a major change in practice, but should reduce variation in practice and improve care for women.

Return to recommendations

Involving partners

Recommendations 1.1.11 to 1.1.13

Why the committee made the recommendations

The committee recognised that women's home and family circumstances vary, and it is up to the woman who she may want to involve in her antenatal care. Involving

partners is an important part of antenatal care, and the World Health Organization has emphasised the importance of engaging with partners during pregnancy, childbirth and postnatally.

The committee discussed that partners can face many types of barriers when engaging with antenatal services. There was good quality evidence on partners' views and experiences of antenatal care that showed that women appreciate being able to involve their partners in antenatal care, but this can be difficult, for example, because of the partner's work patterns. Therefore, the committee agreed that the services should consider adapting when antenatal classes are offered (for example, in the evenings or at the weekends) to enable partners to be involved if the woman wishes.

Evidence showed that partners can feel like bystanders in appointments if, for example, there is no space for them to sit with their partner. The committee agreed ways that antenatal services could promote partner involvement. The committee agreed that partners are not always given information, including how partners can support the woman during pregnancy, and general pregnancy information that women receive. Increased use of virtual platforms to attend meetings may also improve partners' involvement in antenatal care. This could enable either the partner to attend remotely if the woman has a face-to-face appointment, or for the couple to attend together if she has a virtual appointment.

How the recommendations might affect practice

The committee agreed that the recommendations may increase and promote the involvement of partners, while respecting the woman's decisions. The recommendations are not expected to have a large resource impact or be difficult to implement although there may be some organisational changes needed to support making the timing of antenatal classes more flexible.

Return to recommendations

Taking the woman's history

Recommendations 1.2.1 to 1.2.10

Why the committee made the recommendations

The recommendations were not developed by the usual NICE guideline systematic review process. A new evidence review was not considered necessary because the issues are covered by other NICE guidelines, or there is no clinical uncertainty or significant resource impact. Where there might be potential limited resource impact, this could be justifiably offset by improved outcomes, avoidance of serious adverse outcomes or addressing inequalities. The recommendations were based on committee consensus on what is best practice, and other existing NICE guidelines.

Asking the woman about her past and present conditions and experiences in relation to her physical, obstetric, psychological, emotional and social health enables potential risk factors to be identified and managed. The committee used their knowledge and experience to list the factors that should be discussed so that appropriate action can be taken, and care tailored to the woman's needs.

The committee also agreed that healthcare professionals should be aware of the disproportionate maternal mortality and stillbirth rates among women and babies from black, Asian and minority ethnic backgrounds and those living in deprived areas, as highlighted by the 2020 MBRRACE-UK reports on maternal mortality and perinatal mortality. This increased risk of death indicates that improved engagement or closer monitoring might be needed. Future research could help understand the mechanisms underlying these disparities and what interventions could improve the outcomes.

The committee also agreed on the importance of information sharing between the maternity unit and the GP. This is particularly important if the woman has self-referred (because the GP may be unaware of her pregnancy), and if women have a complex medical, psychological or social history (because different agencies may need to be involved in her and her baby's care).

Identifying underlying cardiac problems is important because cardiovascular disease is the leading cause of death among women in the UK during and after pregnancy, according to the 2019 report MBRRACE-UK: Saving lives, improving mothers' care – lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2016–18. Some women are at a higher

risk of undiagnosed structural cardiac problems, such as women with a family history of cardiac abnormalities or women who were brought up in a country with a high incidence of rheumatic fever. Clinical assessment cannot identify all cardiac problems that cause maternal mortality, but it might pick up structural heart disease or concerns that warrant further investigations. Early identification of underlying cardiac conditions allows these women to receive appropriate care during their pregnancy, childbirth and postnatal period, and potentially avoid poor outcomes.

The committee agreed that domestic abuse puts both the woman and her baby at risk of harm, so it is important that all pregnant women are asked about it in a kind, sensitive way. Pregnancy can sometimes be a trigger for domestic abuse or existing domestic abuse can continue or worsen during pregnancy, so it is important that women feel that they can disclose it safely so that they can be supported and interventions put in place if needed.

The committee recognised the need to identify women who have undergone female genital mutilation (FGM) or whose unborn baby girl might be at risk of FGM so that appropriate safeguarding can take place. In the context of this guideline, this could be the pregnant woman, or the unborn baby when there is a family history or tradition of FGM. There is a mandatory duty to report suspected or known FGM in under 18s. The Department of Health and Social Care has produced a quick guide for healthcare professionals on FGM safeguarding and risk assessment, which includes information about countries where FGM is practised, and practical advice on how to start the conversation.

Antenatal appointments are opportunities for continued monitoring and risk assessment on the health and wellbeing of the woman and her baby. They also allow for regular reassessments of women's antenatal care needs and plans.

How the recommendations might affect practice

The recommendations largely reflect current best practice. Clinical assessment for cardiac conditions is not always done for women who may be at an increased risk so the recommendation may change practice to some extent. The number of women this recommendation applies to is relatively small and the potentially life-saving

benefit of this simple examination outweighs the potential cost and resource implications.

Return to recommendations

Examinations and investigations

Recommendations 1.2.11 to 1.2.15

Why the committee made the recommendations

Most of the issues are covered by national screening programmes or other NICE guidance so no new evidence review was needed. The committee agreed, by consensus, any other recommendations where there is no clinical uncertainty or significant resource impact.

The timing of the ultrasound scans aligns with the NHS fetal anomaly screening programme.

How the recommendations might affect practice

The recommendations reflect current practice and no change in practice is expected.

Return to recommendations

Venous thromboembolism

Recommendations 1.2.16 and 1.2.17

Why the committee made the recommendations

The committee based the recommendations on the evidence on independent risk factors for venous thromboembolism in pregnancy, their knowledge and experience, and the NICE guideline on venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism. The evidence on independent risk factors for venous thromboembolism during pregnancy did not assess the accuracy of tools used to measure the risk, so the committee recommended that tools should meet certain quality criteria. They agreed that an example of a tool that might be used is the risk assessment tool in the Royal College of Obstetricians and Gynaecologists' green-top guideline on reducing the risk of

venous thromboembolism during pregnancy (2015), which is commonly used in practice.

The committee highlighted some risk factors in the evidence review (blood type A or B, miscarriage after 10 weeks in the current pregnancy and history of prior blood transfusion) that are not always incorporated into commonly used venous thromboembolism tools. However, they agreed not to include them specifically in the recommendations because it could give a false impression that these factors were more important than others or lead to overtreatment.

The committee agreed that women assessed at being at an increased risk of venous thromboembolism can benefit from a referral to an obstetrician so that a risk management plan can be made.

How the recommendation might affect practice

The recommendation reflects current practice and no change in practice is expected.

Return to recommendations

Gestational diabetes

Recommendations 1.2.18 and 1.2.19

Why the committee made the recommendations

Guidance on risk assessment for and identification of gestational diabetes is covered by the NICE guideline on diabetes in pregnancy.

How the recommendations might affect practice

The recommendation reflects current practice and no change in practice is expected.

Return to recommendations

Pre-eclampsia and hypertension in pregnancy

Recommendations 1.2.20 to 1.2.25

Why the committee made the recommendations

Guidance on risk assessment and risk reduction for pre-eclampsia is covered by the NICE guideline on hypertension in pregnancy. Although the guideline implies that pregnant women will be routinely tested for proteinuria, it does not explicitly recommend this. Therefore, the committee agreed that in line with current practice, urine testing for proteinuria should be offered at every routine face-to-face appointment.

There was little evidence on the setting and technique to monitor blood pressure during pregnancy, so the committee made the recommendations based on their knowledge and experience and existing NICE guidance. The committee were aware that the British and Irish Hypertension Society lists blood pressure measurement devices validated for use in pregnancy. This has also been noted in the NICE guideline on hypertension in adults.

The committee agreed that monitoring blood pressure and testing for proteinuria at every routine face-to-face antenatal appointment enables hypertension and pre-eclampsia to be identified and treated early, which is important because they can have severe consequences.

Guidance on care for pregnant women with gestational or chronic hypertension is covered by the NICE guideline on hypertension in pregnancy.

How the recommendations might affect practice

The recommendation reflects current practice and no change in practice is expected.

Return to recommendations

Monitoring fetal growth and wellbeing

Recommendations 1.2.26 to 1.2.32

Why the committee made the recommendations

Risk assessment starting in early pregnancy enables increased monitoring of babies who are at an increased risk of fetal growth restriction, which is associated with fetal morbidity and mortality. The committee were aware of available risk assessment tools, such as those in the Royal College of Obstetricians and Gynaecologists'

guideline on the investigation and management of the small-for-gestational-age fetus or the NHS saving babies' lives care bundle version 2.

Evidence showed that ultrasound scans and symphysis fundal height measurement do not accurately predict a baby being born small or large for gestational age. However, the committee agreed that current routine practice of using symphysis fundal height measurement to monitor fetal growth should be used, because it is a simple and low-cost intervention and can alert to further investigations when concerns arise about the baby being either larger or smaller than expected for gestational age. When a baby is suspected to be large for gestational age, ultrasound scans could be used to assess the size of the baby and the volume of amniotic fluid. Small-for-gestational-age babies are at an increased risk of perinatal mortality and morbidity; therefore, further investigations should be done to monitor the growth and wellbeing of the baby, taking into consideration the full clinical picture.

The committee were aware that many women may request routine ultrasound scans in late pregnancy but available evidence showed no benefit from routine ultrasound in late pregnancy (from 28 weeks) for uncomplicated singleton pregnancies. However, the absence of effect found in the evidence does not definitely mean there is no effect. There was also no evidence on maternal anxiety in relation to routine ultrasound scanning. The committee were in favour of research on this in the future; however, a research recommendation was not prioritised because there is a good amount of evidence on other key outcomes.

The committee were aware that cases of stillbirth have been linked to reduced fetal movements. Therefore, structured fetal movement awareness packages have been trialled. Evidence on the use of a structured fetal movement awareness package, such as the one described in the UK trial Awareness of fetal movements and care package to reduce fetal mortality (AFFIRM), did not detect a reduction in stillbirths or perinatal mortality but there were more interventions at birth, including more caesarean sections and inductions of labour, and fewer spontaneous vaginal births. Another study from Sweden compared giving a leaflet to pregnant women teaching them a method of being aware of fetal movements, with usual care. No clinically important benefits or harms were detected, including no difference in perinatal

mortality, although there was a small, but statistically significant, reduction in births after 41+6 weeks and fewer caesarean births. Health economic evaluation did not establish cost effectiveness for either of these structured awareness packages.

Although the available evidence did not support the use of structured packages, the committee agreed that fetal movements should be discussed routinely and women's concerns should be taken seriously. The committee agreed that there is no agreed definition of normal fetal movements. Discussing the topic of babies' movements in the womb and how they change throughout the pregnancy can help women recognise changes to their own baby's movement patterns. When there are concerns, an assessment of the woman's wellbeing and the baby's wellbeing and size should be done.

How the recommendations might affect practice

The recommendations on fetal growth monitoring largely reflect current practice although in some maternity units, it is common to offer women with uncomplicated singleton pregnancies ultrasound scans after 28 weeks to monitor the baby, so there might be a change of practice for these units and some potential cost savings.

Current practice for managing reduced fetal movements is to follow the NHS saving babies' lives care bundle version 2. The recommendations in this guideline similarly emphasise the importance of recognising and reporting of concerns on fetal movements and acting on those concerns by assessing the woman and the baby.

Return to recommendations

Breech presentation

Recommendations 1.2.33 to 1.2.35

Why the committee made the recommendations

There was not enough evidence to support routine ultrasound at 36+0 weeks to 39+0 weeks to identify breech presentation, so the committee did not change the current standard practice of performing abdominal palpation with selective ultrasound when breech is suspected.

Because of the lack of evidence, the committee made a research recommendation to compare routine ultrasound scans from 36+0 weeks with selective ultrasound scans.

External cephalic version is standard practice for managing breech presentation in uncomplicated singleton pregnancies at or after 36+0 weeks, and is supported by the evidence. The committee did not recommend a change to current practice and agreed that healthcare professionals should discuss this with women to aid decision making.

How the recommendations might affect practice

The recommendations reflect current clinical practice and no change in practice is expected.

Return to recommendations

Communication with women

Recommendations 1.3.1 to 1.3.4

Why the committee made the recommendations

The evidence did not show a particular benefit from any one specific approach to giving information, although 1 study found that supplementing information provided face-to-face with online information increased knowledge. The committee based the recommendations on their knowledge and experience.

The committee agreed that information should meet the needs of the woman, for example, taking into account any language barriers, learning disabilities or other needs. Most antenatal care information is given in a one-to-one discussion, and offering other formats to supplement this can help improve women's understanding and engagement. The committee discussed the importance of allowing sufficient time for discussions so that it is easier for women to understand and absorb the information, which may also mean that they are more likely to follow the advice.

There was no evidence identified to inform the timing of information provision, but the committee agreed it is important to have a staged approach and cover topics relevant to each stage of pregnancy.

How the recommendations might affect practice

The recommendations largely reflect current practice.

Return to recommendations

Information about antenatal care

Recommendations 1.3.5 to 1.3.13

Why the committee made the recommendations

There was evidence that women value information that is relevant to their own circumstances. The committee agreed that healthcare professionals should explore the level and accuracy of the woman's (and her partner's) existing knowledge and understanding of the topic.

The committee agreed, based on the evidence and their knowledge and experience, that if women are given information about antenatal care, their schedule of appointments and what happens at different appointments and stages of pregnancy, they are more likely to be more engaged, follow advice and share their concerns with healthcare professionals.

The first antenatal (booking) appointment is an opportunity to discuss and share information about various practical issues related to pregnancy and antenatal care so that the woman knows what to expect and how to get support. The evidence showed that partners also value practical information throughout the pregnancy. For example, in relation to safe use of medicines in pregnancy, the committee were aware of the UK Teratology Information Service's information resources on best use of medicines in pregnancy (bumps).

Considering the amount of new information at the beginning of antenatal care, discussions around practical aspects related to labour, childbirth and postnatal care are more appropriate later on in the third trimester closer to the birth.

The evidence suggested that women want information on how behavioural factors, such as smoking, alcohol, diet and physical activity may affect them and their baby's health. The evidence also highlighted how emotional these topics could be for women and that women may feel judged or patronised. The committee agreed it is

important to have these discussions in sensitive manner that supports individual women. Guidance on all these issues is covered by other NICE guidelines or government documents.

The committee recognised that pregnant women and their partners often look for information and support from various sources, such as websites, and not all of them are necessarily evidence-based, so signposting to trusted resources may be helpful.

There was some evidence that women and their partners valued information and discussion around the transition to parenthood, and the changes that pregnancy and becoming a parent will bring to their life and relationship. The committee were aware of various resources available that could be helpful for parents, particularly new parents.

The evidence showed that women want information on their options for giving birth. The committee agreed that these discussions should start, at the latest, around the time of the start of the third trimester. The committee agreed in line with the Montgomery ruling, that discussing the implications, benefits and risks is fundamental to making shared and informed decisions. Guidance on making decisions about place of birth, mode of birth and prolonged pregnancy are also covered by other NICE guidelines.

There was some evidence that healthcare professionals thought that providing information on emotional attachment and bonding could improve women's confidence and increase their preparedness for birth. Further recommendations about promoting emotional attachment and bonding, as well as planning and managing infant feeding, are covered by the NICE guideline on postnatal care [LINK TO GUIDELINE UPDATE TO BE ADDED].

How the recommendations might affect practice

The recommendations will improve consistency of care and reinforce best practice.

Return to recommendations

Antenatal classes

Recommendations 1.3.14 to 1.3.16

Why the committee made the recommendations

Evidence among nulliparous women showed that women who went to antenatal classes were more likely to have their cervix dilated by 3 cm or more on admission to labour. A dilated cervix on admission may reduce the need for interventions. This may indicate that women who attended antenatal classes have better coping strategies and the confidence to deal with pain at home in the early stages of labour. There was no evidence about the most effective content for antenatal classes, so the committee made the recommendations based on their experience.

The committee recognised that there may be multiparous women who could also particularly benefit from antenatal classes, so providing them for these women should be considered.

The committee recognised that some groups of women may be less likely to attend antenatal classes (for example, some women from low income or disadvantaged backgrounds or minority ethnic groups, or those for whom English is not their first language). The committee agreed that in order to increase engagement with antenatal classes, service providers should ensure classes are accessible, welcoming and adapted to meet the needs of local communities.

How the recommendations might affect practice

The recommendations reflect current practice. However, adapting classes to the needs of the local communities might involve some reorganising of practices.

Return to recommendations

Peer support

Recommendations 1.3.17 and 1.3.18

Why the committee made the recommendations

The evidence showed that peer support could offer helpful and valuable care and guidance during the antenatal period. There was evidence among women from particular subpopulations, such as migrant women, women from a lower social-economic backgrounds, women with intellectual disabilities, or younger women, and

the committee agreed that peer support groups among women in similar circumstances might be particularly helpful.

The committee discussed that peer support, including group peer support, volunteer peer support, doula support and online support, is usually provided through 'third sector' services, and agreed that healthcare professionals should give women information about how to contact local and national services. Although there was little evidence on partners' experiences of peer support, in the committee's experience, some partners find peer support services for partners helpful.

How the recommendations might affect practice

The recommendations reflect current best practice.

Return to recommendations

Sleep position

Recommendations 1.3.19 and 1.3.20

Why the committee made the recommendations

The evidence suggested that there is an increased risk of stillbirth and babies being born small for gestational age after 28 weeks if women fall asleep on their backs. The committee agreed that there is uncertainty about this risk because the evidence was from relatively small studies whose design made it difficult to assume that sleep position caused the adverse outcomes. The committee recognised that further research is unlikely because conducting sufficiently powered prospective cohort studies is not feasible given the relatively low incidence of stillbirth (1 in every 244 births in the UK according to 2018 Office for National Statistics [ONS] data). The committee also noted that not all the included studies used the same definition of stillbirth and that only 1 study reported data according to whether the stillbirth occurred at term or at preterm. On balance, the committee agreed that the evidence was strong enough to advise women to try to avoid going to sleep on their back after 28 weeks.

The committee knew from their experience that providing practical advice about risk reduction is extremely important for pregnant women. They discussed reassuring

women about sleep positions and practical aids that could make it easier for pregnant women not to go to sleep on their backs and maintain this position when sleeping, for example, by using pillows.

The committee also agreed that the reason for this advice should be explained, and recognised the potential anxiety and feelings of guilt that women may experience, for example, if they wake up on their backs.

How the recommendations might affect practice

Healthcare professionals may need to spend more time talking to women about sleep position in pregnancy, but the recommendations are not expected to have a significant cost or resource impact.

Return to recommendations

Nausea and vomiting

Recommendations 1.4.1 to 1.4.4

Why the committee made the recommendations

Nausea and vomiting in pregnancy can be unpleasant, affect daily life and cause worry and upset. Based on their knowledge and experience, the committee agreed that it is important to reassure pregnant women who experience mild to moderate nausea and vomiting that these are common symptoms in early pregnancy and will usually settle latest in the second trimester.

Some women prefer to use non-pharmacological treatments whereas others may prefer pharmacological treatments, so both options are recommended.

There was some evidence that ginger is effective in treating mild to moderate nausea and vomiting in pregnancy compared with placebo. There was no evidence that any other non-pharmacological treatments are effective.

There was evidence on a wide variety of pharmacological treatments, many of which are commonly used in current practice. The evidence on the medicines varied in quality and for some medicines, no evidence was found. Metoclopramide hydrochloride was supported by good quality evidence showing it was effective in

improving symptoms. Ondansetron was also found to be effective in improving symptoms. A combination drug with pyridoxine and doxylamine is currently the only drug licensed for this indication but the evidence is very old and of low quality and did not show a convincing effect on symptom improvement. Evidence on histamine H1 receptor antagonists was of very low quality and not particularly convincing. Studies on pyridoxine hydrochloride showed differing results with larger trials showing no improvement in symptoms. No evidence was identified on the effectiveness of cyclizine hydrochloride alone in pregnant women, so the committee made a research recommendation.

All of the treatment options have different advantages and disadvantages, including effectiveness in relieving symptoms, safety and other considerations, which have been summarised in a table to help with decision making. The committee used information available from the British National Formulary (BNF), the UK Teratology Information Service monographs and patient information leaflets, and the manufacturers' summaries of product characteristics to inform about the potential effects on the baby. The committee recognised that women are concerned about the effects of medicines on the baby and how, in the unfortunate event of an adverse pregnancy outcome, women might associate it with medicine use, even when there is no evidence of harm. The committee discussed how it is important to discuss with women that there is always a background risk of congenital malformations, miscarriage and stillbirths irrespective of whether any medicines are taken during pregnancy.

The evidence for treating hyperemesis gravidarum did not generally support any different treatment options from those used for mild and moderate nausea and vomiting in pregnancy. An exception was for acupressure combined with standard care where the evidence showed benefits in relieving symptoms in women with hyperemesis gravidarum, which was not shown for women with mild and moderate nausea and vomiting. Therefore, the committee recommended that acupressure could be considered for women with hyperemesis gravidarum.

The evidence showed no difference in most outcomes between offering intravenous fluids in an inpatient or outpatient setting. Offering them as an outpatient is less

expensive, reduces time spent in hospital and, in the committee's experience, is generally preferred by women.

No recommendation was made on the use of corticosteroids as a treatment for hyperemesis gravidarum in pregnant women because despite research in this area, no evidence was found to support its use. The committee discussed that corticosteroids have well-known harms, and that some units use corticosteroids in severe cases of hyperemesis gravidarum, so a research recommendation was made.

How the recommendations might affect practice

The treatment options are all used in current practice but there may be a change in practice in encouraging shared decision making for different options. This may mean that those prescribing medicines may need to spend more time discussing the options with the woman.

An increase in giving intravenous fluids as an outpatient service instead of an inpatient service could bring cost savings.

Return to recommendations

Heartburn

Recommendations 1.4.5 and 1.4.6

Why the committee made the recommendations

There was no evidence on whether giving lifestyle and diet information to pregnant women with heartburn is effective, but the committee agreed, based on their own knowledge and experience, that it may help. This is supported by guidance for the general adult population in the NICE guideline on gastro-oesophageal reflux disease and dyspepsia.

The committee recommended considering either antacid or alginate therapy for women with heartburn in pregnancy because there is evidence that they are equally effective. These medicines are available over the counter. Because the studies examined various antacid and alginate remedies, the committee agreed they could not make a more specific recommendation.

The committee did not make any recommendations about acupuncture or proton pump inhibitors (PPIs) because, although there was some evidence that acupuncture is effective in alleviating heartburn and that PPI use in the first trimester is not harmful to the baby, it was of very low quality and not good enough to support recommending them to be used routinely. In addition, there was no evidence on H2 receptor antagonist (H2RA) therapy to treat heartburn in pregnancy.

How the recommendations might affect practice

The recommendations reflect current clinical practice.

Return to recommendations

Symptomatic vaginal discharge

Recommendations 1.4.7 to 1.4.11

Why the committee made the recommendations

There was limited evidence on the effectiveness of treatments for symptomatic vaginal discharge in pregnant women, so the committee used their knowledge and clinical experience to make the recommendations. The committee agreed that some women can find an increase in vaginal discharge distressing or uncomfortable, so it is important to reassure women that it is a normal feature of pregnancy. However, women should also be made aware of the symptoms and signs of infection that may need further action because there is a small chance that some infections could lead to complications.

Candidiasis (thrush) is often an easily identifiable cause of symptomatic vaginal discharge and may not need a formal investigation. However, if there is doubt about the cause, a vaginal swab could be used. It is important that possible sexually transmitted infections are appropriately investigated so that they can be treated because they could have an impact on the baby.

The evidence on antifungal treatment to treat symptomatic vaginal discharge because of vaginal candidiasis was very limited, imidazole being the only drug class being studied. However, imidazole (for example, clotrimazole or econazole) was consistently shown to be effective.

The evidence on the benefits and harms of antibiotics to treat symptomatic vaginal discharge due to bacterial vaginosis was also very limited. There was only evidence on oral amoxicillin (which is not commonly prescribed in current practice for this indication) and oral metronidazole. The committee were aware of evidence among asymptomatic populations that antibiotics are effective in treating the underlying infection, but the committee agreed that it cannot be assumed that they would be effective in relieving symptomatic vaginal discharge. The committee noted that it is common practice to prescribe vaginal rather than oral antibiotics for this indication – in particular, clindamycin or metronidazole. Combining this with their knowledge and experience, they recommended that either oral or vaginal antibiotics could be considered. The NICE guideline on antimicrobial stewardship gives guidance on good practice in prescribing antimicrobials.

No evidence was identified on the effectiveness of metronidazole to treat symptomatic vaginal discharge because of vaginal trichomoniasis, therefore no recommendations were made.

How the recommendations might affect practice

The committee agreed that the recommendations will reinforce current best practice and standardise care.

Return to recommendations

Pelvic girdle pain

Recommendation 1 4.12

Why the committee made the recommendation

There was evidence of varying quality from several randomised controlled trials that exercise advice from a physiotherapist may reduce pain intensity and pelvic-related functional disability. The committee recommended referral to physiotherapy services rather than a physiotherapist because information and advice could be given over the telephone or in an email or letter rather than in a face-to-face appointment.

Moderate quality evidence from 1 randomised controlled trial showed that a non-rigid lumbopelvic belt together with general information about anatomy, body posture and

ergonomic advice reduced pelvic girdle pain intensity, compared with exercise advice and information, and information only. However, it did not have an impact on functional status in daily activities. No evidence was identified about adverse effects of using a lumbopelvic belt. Providing a non-rigid lumbopelvic belt was also found to be cost effective based on an economic evaluation, but because the clinical evidence base was limited, the committee agreed not to make a strong recommendation.

How the recommendation might affect practice

Current practice for pregnancy-related pelvic girdle pain is to offer analgesics (for example, paracetamol) and provide information about lifestyle and health changes. Some hospitals also have access to physiotherapy services. Providing a lumbopelvic belt is not current practice in all units, so the committee recognised that the recommendation may have cost implications. However, health economic modelling showed that it is cost effective even if women are referred for physiotherapy. The recommendation may increase the number of pregnant women seeking referral to physiotherapy services.

Return to recommendation

Unexplained vaginal bleeding after 13 weeks

Recommendations 1.4.13 to 1.4.16

Why the committee made the recommendations

There was very little evidence, so the committee used their knowledge and experience to make recommendations. They took into account the risks associated with a delay in assessing and treating unexplained vaginal bleeding in pregnancy, the possibility that anti-D injections may be needed for women who are rhesus D-negative, the need to exclude a low-lying placenta (placenta praevia) and that corticosteroids may be needed if there is a risk of preterm birth.

Evidence on the effectiveness of hospitalisation was limited, with only 1 retrospective study that showed no difference in the number of fetal deaths whether women were admitted to hospital or discharged on the day they presented. The committee agreed that hospitalisation should be considered for monitoring, administering

corticosteroids and neonatal unit care if the baby is born preterm. Because of limited evidence, the committee made a research recommendation.

How the recommendations might affect practice

The recommendations reflect current practice.

Return to recommendations

Context

Around 660,000 women give birth in England and Wales each year. The antenatal period is an excellent opportunity to not only provide support and information to women (and their families) about pregnancy, birth and the postnatal period, but also to assess their risk of complications. Even in fit and healthy women, concerns and complications can still arise, and good quality antenatal care is vital to identify and deal with potential problems and reduce the chance of poor outcomes for both the woman and the baby.

Antenatal service delivery and provision of care have changed over time and this guideline updates and replaces the version of the NICE guideline on antenatal care (first published in 2008).

This guideline covers routine antenatal care for all women. However, it does not cover specialised care for women with underlying medical conditions or obstetric complications (once diagnosed) but refers to other NICE guidelines.

This guideline covers the organisation and delivery of antenatal care, in particular how to initially access antenatal care, antenatal appointments and the involvement of partners in antenatal care. Routine care and monitoring during pregnancy is covered and the guideline makes references to other guidance on risk assessment and screening. This guideline also covers providing information and support during antenatal care, and managing some of the common problems during pregnancy.

Throughout the development of this guideline, the committee has considered how antenatal care could be made accessible, fair and high quality for all women, regardless of their background or situation.

Finding more information and committee details

To find out what NICE has said on topics related to this guideline, see our webpage on pregnancy.

For details of the guideline committee, see the committee member list.

Update information

This guideline is an update of NICE guideline CG62 (published March 2008) and will replace it.