

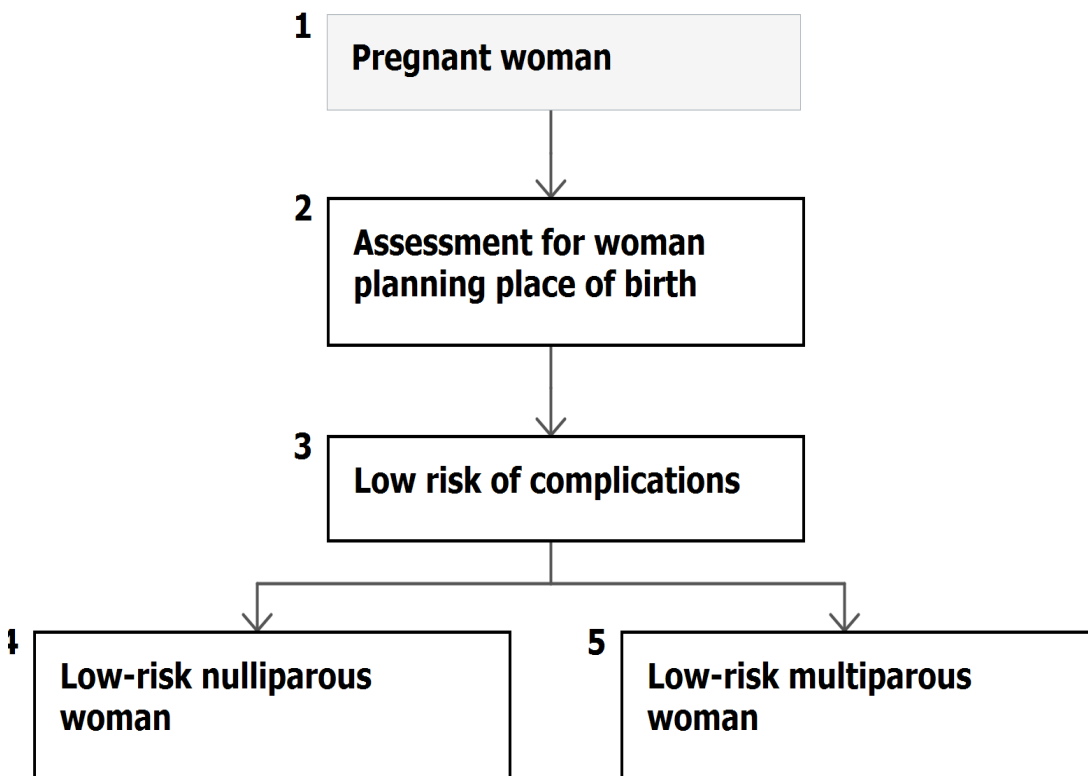
Antenatal care for uncomplicated pregnancies: planning place of birth

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/antenatal-care-for-uncomplicated-pregnancies>
NICE Pathway last updated: 21 December 2017

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Pregnant woman

No additional information

2 Assessment for woman planning place of birth

When discussing the woman's choice of place of birth with her, do not disclose personal views or judgements about her choices.

As part of an assessment for a woman choosing her planned place of birth:

- Use the tables
 - [medical conditions indicating increased risk \[See page 13\]](#) and
 - [other factors indicating increased risk \[See page 15\]](#)

which show medical conditions or situations in which there is increased risk for the woman or baby during or shortly after labour, where care in an obstetric unit would be expected to reduce this risk.

- The factors listed in the tables
 - [medical conditions indicating individual assessment \[See page 16\]](#) and
 - [other factors indicating individual assessment \[See page 17\]](#)

are not reasons in themselves for advising birth within an obstetric unit, but indicate that further consideration of birth setting may be required.

- Discuss these risks and the additional care that can be provided in the obstetric unit with the woman so that she can make an informed choice about planned place of birth.

See what NICE says on [multiple pregnancy](#).

Advise women with risk factors for postpartum haemorrhage to give birth in an obstetric unit, where more emergency treatment options are available.

- Antenatal risk factors:
 - previous retained placenta or postpartum haemorrhage
 - maternal haemoglobin level below 85 g/litre at onset of labour
 - BMI greater than 35 kg/m²
 - grand multiparity (parity 4 or more)

- antepartum haemorrhage
 - overdistention of the uterus (for example, multiple pregnancy, polyhydramnios or macrosomia)
 - existing uterine abnormalities
 - low-lying placenta
 - maternal age of 35 years or older.
- Risk factors in labour:
 - induction
 - prolonged first, second or third stage of labour
 - oxytocin use
 - precipitate labour
 - operative birth or caesarean section.

3 Low risk of complications

Explain to both multiparous and nulliparous women who are at low risk of complications that giving birth is generally very safe for both the woman and her baby.

Explain to both multiparous and nulliparous women that they may choose any birth setting (home, freestanding midwifery unit, alongside midwifery unit or obstetric unit), and support them in their choice of setting wherever they choose to give birth:

- Advise low-risk multiparous women that planning to give birth at home or in a midwifery-led unit (freestanding or alongside) is particularly suitable for them because the rate of interventions is lower and the outcome for the baby is no different compared with an obstetric unit.
- Advise low-risk nulliparous women that planning to give birth in a midwifery-led unit (freestanding or alongside) is particularly suitable for them because the rate of interventions is lower and the outcome for the baby is no different compared with an obstetric unit. Explain that if they plan birth at home there is a small increase in the risk of an adverse outcome for the baby.

Ensure that all healthcare professionals involved in the care of pregnant women are familiar with the types and frequencies of serious medical problems that can affect babies [See page 7], in order to be able to provide this information to women if they request it.

Give the woman the following information, including local statistics, about all local birth settings:

- Access to midwives, including:

- the likelihood of being cared for in labour by a familiar midwife
 - the likelihood of receiving one-to-one care throughout labour (not necessarily being cared for by the same midwife for the whole of labour).
- Access to medical staff (obstetric, anaesthetic and neonatal).
 - Access to pain relief, including birthing pools, Entonox, other drugs and regional analgesia.
 - The likelihood of being transferred to an obstetric unit (if this is not the woman's chosen place of birth), the reasons why this might happen and the time it may take. Refer to the table [primary reasons for transfer to an obstetric unit](#) [See page 12] if no local data are available.

If further discussion is wanted by either the midwife or the woman about the choice of planned place of birth, arrange this with a consultant midwife or supervisor of midwives, and/or a consultant obstetrician if there are obstetric issues.

4 Low-risk nulliparous woman

Using the tables

- [rates of spontaneous vaginal birth, transfer to an obstetric unit and obstetric interventions for low-risk nulliparous women](#) [See page 10] and
- [outcomes for the baby for low-risk nulliparous women](#) [See page 11]

explain to low-risk nulliparous women that:

- planning birth at home or in a freestanding midwifery unit is associated with a higher rate of spontaneous vaginal birth than planning birth in an alongside midwifery unit, and these 3 settings are associated with higher rates of spontaneous vaginal birth than planning birth in an obstetric unit
- planning birth in an obstetric unit is associated with a higher rate of interventions, such as instrumental vaginal birth, caesarean section and episiotomy, compared with planning birth in other settings
- there are no differences in outcomes for the baby associated with planning birth in an alongside midwifery unit, a freestanding midwifery unit or an obstetric unit
- planning birth at home is associated with an overall small increase (about 4 more per 1000 births) in the risk of a baby having a serious medical problem compared with planning birth in other settings.

5 Low-risk multiparous woman

Using the tables

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- rates of spontaneous vaginal birth, transfer to an obstetric unit and obstetric interventions for low-risk multiparous women [See page 8] and
 - outcomes for the baby for low-risk multiparous women [See page 9]

explain to low-risk multiparous women that:

- planning birth at home or in a freestanding midwifery unit is associated with a higher rate of spontaneous vaginal birth than planning birth in an alongside midwifery unit, and these 3 settings are associated with higher rates of spontaneous vaginal birth than planning birth in an obstetric unit
- planning birth in an obstetric unit is associated with a higher rate of interventions, such as instrumental vaginal birth, caesarean section and episiotomy, compared with planning birth in other settings
- there are no differences in outcomes for the baby associated with planning birth in any setting.

Types and frequencies of serious medical problems that can affect babies

Numbers and proportions of the individual components of the composite adverse outcomes measure recorded in the [Birthplace UK \(2011\) study](#)

Outcome	Actual number of babies affected out of [63,955 to 64,535]* (number per 1000)	Percentage of all adverse outcomes measured
Stillbirth after start of care in labour	14 out of 64,535 (0.22 per 1000)	5%
Death of the baby in the first week after birth	18 out of 64,292 (0.28 per 1000)	7%
Neonatal encephalopathy (disordered brain function caused by oxygen deprivation before or during birth) (clinical diagnosis)	102 out of 63,955 (1.6 per 1000)	40%
Meconium aspiration syndrome (the baby breathes meconium into their lungs)	86 out of 63,955 (1.3 per 1000)	34%
Brachial plexus injury	24 out of 63,955 (0.38 per 1000)	9%
Bone fractures	11 out of 63,955 (0.17 per 1000)	4%
TOTAL (of all outcomes included in the 'adverse outcome' composite measure)	255 out of 63,955 to 64,535) (approx. 4 per 1000)	99%**

Note: Each of the categories above are mutually exclusive and outcomes listed higher in the table take precedence over outcomes listed lower down. For example, if a baby with neonatal encephalopathy died within 7 days the outcome is classified as an early neonatal death.

* Denominator varies because of missing values.

** Does not equal 100% because of rounding.

Adverse outcome: in order to be able to count enough adverse events to be able to say that the results recorded are not just a result of chance, the [Birthplace UK \(2011\) study](#) used a composite definition of 'adverse outcome'. The definition includes the following outcomes: stillbirth during labour, death of the baby in the first week after birth, neonatal encephalopathy (disordered brain function caused by oxygen deprivation before or during birth), meconium aspiration syndrome, and physical birth injuries (brachial plexus injury and bone fractures). The term 'serious medical problems' has been used to describe this composite outcome in the recommendations.

Rates of spontaneous vaginal birth, transfer to an obstetric unit and obstetric interventions for each planned place of birth: low-risk multiparous women (sources: [Birthplace 2011](#); [Blix et al. 2012](#))

	Number of incidences per 1000 multiparous women giving birth			
	Home	Freestanding midwifery unit	Alongside midwifery unit	Obstetric unit
Spontaneous vaginal birth	984*	980	967	927*
Transfer to an obstetric unit	115*	94	125	10**

Regional analgesia (epidural and/or spinal)***	28*	40	60	121*
Episiotomy	15*	23	35	56*
Caesarean birth	7*	8	10	35*
Instrumental birth (forceps or ventouse)	9*	12	23	38*
Blood transfusion	4	4	5	8
* Figures from Birthplace 2011 and Blix et al. 2012 (all other figures from Birthplace 2011).				
** Estimated transfer rate from an obstetric unit to a different obstetric unit owing to lack of capacity or expertise.				
*** Blix reported epidural analgesia and Birthplace reported spinal or epidural analgesia.				

Outcomes for the baby for each planned place of birth: low-risk multiparous women (source: [Birthplace 2011](#))

	Number of babies per 1000 births			
	Home	Freestanding midwifery unit	Alongside midwifery unit	Obstetric unit
Babies without serious medical problems	997	997	998	997

Babies with serious medical problems*	3	3	2	3
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* Serious medical problems were combined in the study: neonatal encephalopathy and meconium aspiration syndrome were the most common adverse events, together accounting for 75% of the total. Stillbirths after the start of care in labour and death of the baby in the first week of life accounted for 13% of the events. Fractured humerus and clavicle were uncommon outcomes (less than 4% of adverse events). For the frequency of these events (how often any of them actually occurred), see [types and frequencies of serious medical problems that can affect babies](#) [See page 7].

Rates of spontaneous vaginal birth, transfer to an obstetric unit and obstetric interventions for each planned place of birth: low-risk nulliparous women (sources: [Birthplace 2011](#); [Blix et al. 2012](#))

	Number of incidences per 1000 nulliparous women giving birth			
	Home	Freestanding midwifery unit	Alongside midwifery unit	Obstetric unit
Spontaneous vaginal birth	794*	813	765	688*
Transfer to an obstetric unit	450*	363	402	10**
Regional analgesia (epidural and/or spinal)***	218*	200	240	349*
Episiotomy	165*	165	216	242*
Caesarean birth	80*	69	76	121*

Instrumental birth (forceps or ventouse)	126*	118	159	191*
Blood transfusion	12	8	11	16
* Figures from Birthplace 2011 and Blix et al. 2012 (all other figures from Birthplace 2011).				
** Estimated transfer rate from an obstetric unit to a different obstetric unit owing to lack of capacity or expertise.				
*** Blix reported epidural analgesia and Birthplace reported spinal or epidural analgesia.				

Outcomes for the baby for each planned place of birth: low-risk nulliparous women (source: [Birthplace 2011](#))

	Number of babies per 1000 births			
	Home	Freestanding midwifery unit	Alongside midwifery unit	Obstetric unit
Babies without serious medical problems	991	995	995	995
Babies with serious medical problems*	9	5	5	5
* Serious medical problems were combined in the study: neonatal encephalopathy and meconium aspiration syndrome were the most common adverse events, together accounting for 75% of the total. Stillbirths after the start of care in labour and death of the baby in the first week of life accounted for 13% of the events. Fractured humerus and clavicle were uncommon outcomes – less than 4% of adverse events. For the frequency of these events				

(how often any of them actually occurred), see [types and frequencies of serious medical problems that can affect babies](#) [See page 7].

Primary reasons for transfer to an obstetric unit (source: [Birthplace 2011](#))

Primary reason for transfer to an obstetric unit*	Number of women transferred (% of total transferred from each setting)		
	From home (n=3529)	From a freestanding midwifery unit (n=2457)	From an alongside midwifery unit (n=4401)
Delay during first or second stage of labour	1144 (32.4%)	912 (37.1%)	1548 (35.2%)
Abnormal fetal heart rate	246 (7.0%)	259 (10.5%)	477 (10.8%)
Request for regional analgesia	180 (5.1%)	163 (6.6%)	585 (13.3%)
Meconium staining	432 (12.2%)	301 (12.2%)	538 (12.2%)
Retained placenta	250 (7.0%)	179 (7.3%)	203 (4.6%)
Repair of perineal trauma	386 (10.9%)	184 (7.5%)	369 (8.4%)
Neonatal concerns (postpartum)	180 (5.1%)	63 (2.6%)	5 (0.0%)

Other	711 (20.1%)	396 (16.2%)	676 (16.3%)
* Main reason for transfer to an obstetric unit for each woman (there may be more than 1 reason).			

Medical conditions indicating increased risk suggesting planned birth at an obstetric unit

Disease area	Medical condition
Cardiovascular	Confirmed cardiac disease Hypertensive disorders
Respiratory	Asthma requiring an increase in treatment or hospital treatment Cystic fibrosis
Haematological	Haemoglobinopathies – sickle-cell disease, beta-thalassaemia major History of thromboembolic disorders Immune thrombocytopenia purpura or other platelet disorder or platelet count below 100×10^9 /litre Von Willebrand's disease Bleeding disorder in the woman or unborn baby Atypical antibodies which carry a risk of haemolytic disease of the newborn
Endocrine	Hyperthyroidism

	Diabetes
Infective	<p>Risk factors associated with group B streptococcus whereby antibiotics in labour would be recommended</p> <p>Hepatitis B/C with abnormal liver function tests</p> <p>Carrier of/infected with HIV</p> <p>Toxoplasmosis – women receiving treatment</p> <p>Current active infection of chicken pox/rubella/genital herpes in the woman or baby</p> <p>Tuberculosis under treatment</p>
Immune	<p>Systemic lupus erythematosus</p> <p>Scleroderma</p>
Renal	<p>Abnormal renal function</p> <p>Renal disease requiring supervision by a renal specialist</p>
Neurological	<p>Epilepsy</p> <p>Myasthenia gravis</p> <p>Previous cerebrovascular accident</p>
Gastrointestinal	Liver disease associated with current abnormal liver function tests
Psychiatric	Psychiatric disorder requiring current inpatient care

Other factors indicating increased risk suggesting planned birth at an obstetric unit

Factor	Additional information
Previous complications	<p>Unexplained stillbirth/neonatal death or previous death related to intrapartum difficulty</p> <p>Previous baby with neonatal encephalopathy</p> <p>Pre-eclampsia requiring preterm birth</p> <p>Placental abruption with adverse outcome</p> <p>Eclampsia</p> <p>Uterine rupture</p> <p>Primary postpartum haemorrhage requiring additional treatment or blood transfusion</p> <p>Retained placenta requiring manual removal in theatre</p> <p>Caesarean section</p> <p>Shoulder dystocia</p>
Current pregnancy	<p>Multiple birth</p> <p>Placenta praevia</p> <p>Pre-eclampsia or pregnancy-induced hypertension</p> <p>Preterm labour or preterm prelabour rupture of membranes</p> <p>Placental abruption</p>

	<p>Anaemia – haemoglobin less than 85 g/litre at onset of labour</p> <p>Confirmed intrauterine death</p> <p>Induction of labour</p> <p>Substance misuse</p> <p>Alcohol dependency requiring assessment or treatment</p> <p>Onset of gestational diabetes</p> <p>Malpresentation – breech or transverse lie</p> <p>BMI at booking of greater than 35 kg/m²</p> <p>Recurrent antepartum haemorrhage</p> <p>Small for gestational age in this pregnancy (less than fifth centile or reduced growth velocity on ultrasound)</p> <p>Abnormal fetal heart rate/Doppler studies</p> <p>Ultrasound diagnosis of oligo-/polyhydramnios</p>
Previous gynaecological history	<p>Myomectomy</p> <p>Hysterotomy</p>

Medical conditions indicating individual assessment when planning place of birth

Disease area	Medical condition
Cardiovascular	Cardiac disease without intrapartum implications

Haematological	Atypical antibodies not putting the baby at risk of haemolytic disease Sickle-cell trait Thalassaemia trait Anaemia – haemoglobin 85–105 g/litre at onset of labour
Infective	Hepatitis B/C with normal liver function tests
Immune	Non-specific connective tissue disorders
Endocrine	Unstable hypothyroidism such that a change in treatment is required
Skeletal/neurological	Spinal abnormalities Previous fractured pelvis Neurological deficits
Gastrointestinal	Liver disease without current abnormal liver function Crohn's disease Ulcerative colitis

Other factors indicating individual assessment when planning place of birth

Factor	Additional information
Previous complications	Stillbirth/neonatal death with a known non-recurrent cause Pre-eclampsia developing at term

	<p>Placental abruption with good outcome</p> <p>History of previous baby more than 4.5 kg</p> <p>Extensive vaginal, cervical, or third- or fourth-degree perineal trauma</p> <p>Previous term baby with jaundice requiring exchange transfusion</p>
Current pregnancy	<p>Antepartum bleeding of unknown origin (single episode after 24 weeks of gestation)</p> <p>BMI at booking of 30–35 kg/m²</p> <p>Blood pressure of 140 mmHg systolic or 90 mmHg diastolic or more on two occasions</p> <p>Clinical or ultrasound suspicion of macrosomia</p> <p>Para 4 or more</p> <p>Recreational drug use</p> <p>Under current outpatient psychiatric care</p> <p>Age over 35 at booking</p>
Fetal indications	Fetal abnormality
Previous gynaecological history	<p>Major gynaecological surgery</p> <p>Cone biopsy or large loop excision of the transformation zone</p> <p>Fibroids</p>

Types and frequencies of serious medical problems that can affect babies

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ECV

external cephalic version

MIDIRS

Midwives Information and Resource Service

RAADP

routine antenatal anti-D prophylaxis

RhD

rhesus D

Sources

[Intrapartum care for healthy women and babies \(2014\) NICE guideline CG190](#)

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

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

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

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

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to

have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.