NICE National Institute for Health and Care Excellence

NICE Pathways

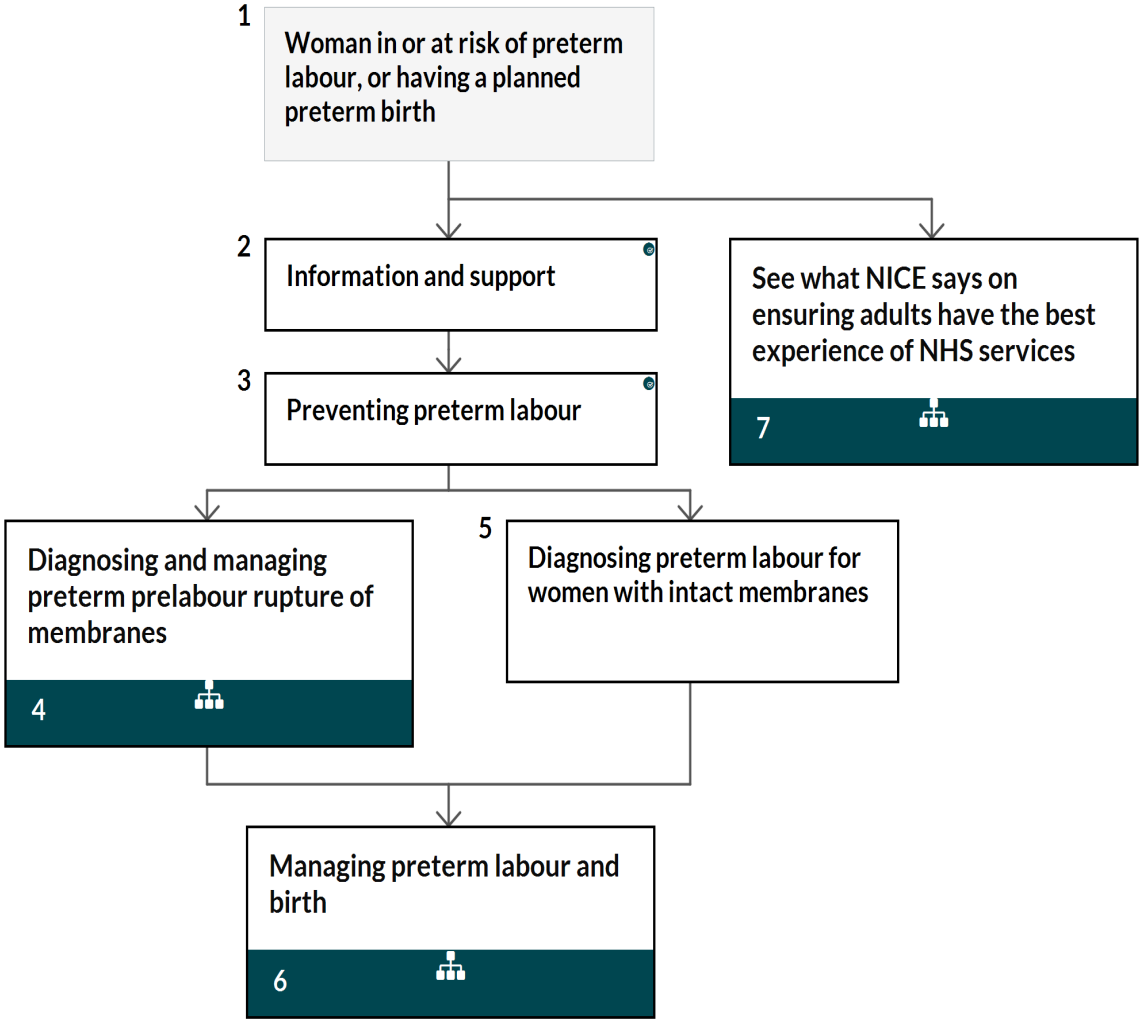
Preterm labour and birth overview

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/preterm-labour-and-birth
NICE Pathway last updated: 30 October 2020

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



1 Woman in or at risk of preterm labour, or having a planned preterm birth

No additional information

2 Information and support

When giving information and support to women at increased risk of preterm labour, with suspected preterm labour, diagnosed preterm labour or established preterm labour, or having a planned preterm birth (and their family members or carers as appropriate):

- give this information and support as early as possible, taking into account the likelihood of preterm birth and the status of labour
- follow the principles of NICE's recommendations on patient experience in adult NHS services
- bear in mind that the woman (and her family members or carers) may be particularly anxious
- give both oral and written information
- describe the symptoms and signs of preterm labour
- explain to the woman about the care she may be offered.

For women who are having a planned preterm birth or are offered treatment for preterm labour in line with managing preterm labour and birth (and their family members or carers as appropriate), provide information and support that includes:

- information about the likelihood of the baby surviving and other outcomes (including long-term outcomes) and risks for the baby, giving values as natural frequencies (for example, 1 in 100)
- explaining about the neonatal care of preterm babies, including location of care
- explaining about the immediate problems that can arise when a baby is born preterm
- explaining about the possible long-term consequences of prematurity for the baby (how premature babies grow and develop)
- ongoing opportunities to talk about and state their wishes about resuscitation of the baby
- an opportunity to tour the neonatal unit
- an opportunity to speak to a neonatologist or paediatrician.

See what NICE says on cerebral palsy.

Quality standards

The following quality statements are relevant to this part of the interactive flowchart.

1. Providing information about potential signs and symptoms of preterm labour

3. Information for women having a planned preterm birth

3 Preventing preterm labour

Prophylactic vaginal progesterone and prophylactic cervical cerclage

Offer a choice of prophylactic vaginal progesterone[1] or prophylactic cervical cerclage to women who have both:

- a history of spontaneous preterm birth (up to 34^{+0} weeks of pregnancy) or mid-trimester loss (from 16^{+0} weeks of pregnancy onwards) **and**
- results from a transvaginal ultrasound scan carried out between 16^{+0} and 24^{+0} weeks of pregnancy that show a cervical length of 25 mm or less.

Discuss the risks and benefits of both options with the woman, and make a shared decision on which treatment is most suitable.

Consider prophylactic vaginal progesterone for women who have either:

- a history of spontaneous preterm birth (up to 34^{+0} weeks of pregnancy) or mid-trimester loss (from 16^{+0} weeks of pregnancy onwards) **or**
- results from a transvaginal ultrasound scan carried out between 16^{+0} and 24^{+0} weeks of pregnancy that show a cervical length of 25 mm or less.

When using vaginal progesterone, start treatment between 16^{+0} and 24^{+0} weeks of pregnancy and continue until at least 34 weeks.

Consider prophylactic cervical cerclage for women when results of a transvaginal ultrasound scan carried out between 16^{+0} and 24^{+0} weeks of pregnancy show a cervical length of 25 mm or less, and who have had either:

- P-PROM in a previous pregnancy **or**
- a history of cervical trauma.

[1] Although this use is common in UK clinical practice, at the time of publication (August 2019), vaginal progesterone did not have a UK marketing authorisation for this indication. The prescriber should see the SPC for the manufacturer's advice on use in pregnancy. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the GMC's Prescribing guidance: prescribing unlicensed medicines for further information.

If prophylactic cervical cerclage is used, ensure that a plan is in place for removal of the suture.

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

'Rescue' cervical cerclage

Do not offer rescue cervical cerclage to women with:

- signs of infection **or**
- active vaginal bleeding **or**
- uterine contractions.

Consider 'rescue' cervical cerclage for women between 16^{+0} and 27^{+6} weeks of pregnancy with a dilated cervix and exposed, unruptured fetal membranes:

- take into account gestational age (being aware that the benefits are likely to be greater for earlier gestations) and the extent of cervical dilatation
- discuss with a consultant obstetrician and consultant paediatrician.

Explain to women for whom 'rescue' cervical cerclage is being considered (and their family members or carers as appropriate):

- about the risks of the procedure
- that it aims to delay the birth, and so increase the likelihood of the baby surviving and of reducing serious neonatal morbidity.

If 'rescue' cervical cerclage is used, ensure that a plan is in place for removal of the suture. See the NICE guideline to find out why we made this recommendation and how it might affect practice.

NICE has published interventional procedures guidance on laparoscopic cerclage for cervical incompetence to prevent late miscarriage or preterm birth with **standard arrangements** for clinical governance, consent and audit.

Quality standards

The following quality statement is relevant to this part of the interactive flowchart.

2. Prophylactic vaginal progesterone and prophylactic cervical cerclage

4 Diagnosing and managing preterm prelabour rupture of membranes

See Preterm labour and birth / Diagnosing and managing preterm prelabour rupture of membranes

5 Diagnosing preterm labour for women with intact membranes

Explain to women reporting symptoms of preterm labour who have intact membranes (and their family members or carers as appropriate):

- about the clinical assessment and diagnostic tests that are available
- how the clinical assessment and diagnostic tests are carried out
- what the benefits, risks and possible consequences of the clinical assessment and diagnostic tests are, including the consequences of false positive and false negative test results taking into account gestational age.

Offer a clinical assessment to women reporting symptoms of preterm labour who have intact membranes. This should include:

- clinical history taking
- the observations described for the initial assessment of a woman in labour
- a speculum examination (followed by a digital vaginal examination if the extent of cervical dilatation cannot be assessed). Be aware that if a swab for fetal fibronectin testing is anticipated (see below), the swab should be taken before any digital vaginal examination.

If the clinical assessment suggests that the woman is in suspected preterm labour and she is 29^{+6} weeks pregnant or less, advise treatment for preterm labour as described in managing preterm labour and birth.

If the clinical assessment suggests that the woman is in suspected preterm labour and she is 30^{+0} weeks pregnant or more, consider transvaginal ultrasound measurement of cervical length as a diagnostic test to determine likelihood of birth within 48 hours. Act on the results as follows:

- if cervical length is more than 15 mm, explain to the woman that it is unlikely that she is in preterm labour and:
  - think about alternative diagnoses
  - discuss with her the benefits and risks of going home compared with continued monitoring and treatment in hospital
  - advise her that if she does decide to go home, she should return if symptoms

- suggestive of preterm labour persist or recur

- if cervical length is 15 mm or less, view the woman as being in diagnosed preterm labour and offer treatment as described in managing preterm labour and birth.

Consider fetal fibronectin testing as a diagnostic test to determine likelihood of birth within 48 hours for women who are 30^{+0} weeks pregnant or more if transvaginal ultrasound measurement of cervical length is indicated but is not available or not acceptable. Act on the results as follows:

- if fetal fibronectin testing is negative (concentration 50 ng/ml or less), explain to the woman that it is unlikely that she is in preterm labour and:
  - think about alternative diagnoses
  - discuss with her the benefits and risks of going home compared with continued monitoring and treatment in hospital
  - advise her that if she does decide to go home, she should return if symptoms suggestive of preterm labour persist or recur
- if fetal fibronectin testing is positive (concentration more than 50 ng/ml), view the woman as being in diagnosed preterm labour and offer treatment as described in managing preterm labour and birth.

If a woman in suspected preterm labour who is 30^{+0} weeks pregnant or more does not have transvaginal ultrasound measurement of cervical length or fetal fibronectin testing to exclude preterm labour, offer treatment consistent with her being in diagnosed preterm labour (see managing preterm labour and birth).

Do not use transvaginal ultrasound measurement of cervical length and fetal fibronectin testing in combination to diagnose preterm labour.

Ultrasound scans should be performed by healthcare professionals with training in, and experience of, transvaginal ultrasound measurement of cervical length.

Biomarker tests

The following recommendations are from NICE diagnostics guidance on biomarker tests to help diagnose preterm labour in women with intact membranes.

There is currently insufficient evidence to recommend the routine adoption of Actim Partus and PartoSure to help diagnose preterm labour in women with intact membranes when transvaginal ultrasound measurement of cervical length is not available or not acceptable.

There is currently insufficient evidence to recommend the routine adoption of the Rapid fetal fibronectin 10Q Cassette Kit (using thresholds other than 50 ng/ml to guide clinical management) to help diagnose preterm labour in women with intact membranes when transvaginal ultrasound measurement of cervical length is not available or not acceptable. Recommendations on qualitative fetal fibronectin testing with a fixed threshold of 50 ng/ml are covered by NICE's guideline on preterm labour and birth, and are not affected by this diagnostics guidance.

Further research is needed on the accuracy of the tests and their effect on clinical outcomes. Centres using the tests to help diagnose preterm labour in women with intact membranes are encouraged to take part in studies to address the research considerations (see research considerations). Data are needed on:

- the impact of gestational age on the accuracy of the tests
- how the tests affect clinical decision-making
- the effect of the tests on outcomes for mother and baby.

6 Managing preterm labour and birth

See Preterm labour and birth / Managing preterm labour and birth

7 See what NICE says on ensuring adults have the best experience of NHS services

See Patient experience in adult NHS services

Glossary

Cervical trauma

(physical injury to the cervix including surgery; for example previous cone biopsy (cold knife or laser), large loop excision of the transformation zone (LLETZ – any number) or radical diathermy)

Diagnosed preterm labour

(a woman is in diagnosed preterm labour if she is in suspected preterm labour and has had a positive diagnostic test for preterm labour)

Established preterm labour

(a woman is in established preterm labour if she has progressive cervical dilatation from 4 cm with regular contractions (see the definition of the established first stage of labour in care in latent first stage of labour))

P-PROM

(preterm prelabour rupture of membranes; a woman is described as having P-PROM if she has ruptured membranes before 37^{+0} weeks of pregnancy but is not in established labour)

Rescue cervical cerclage

(cervical cerclage performed as an emergency procedure in a woman with premature cervical dilatation and often with exposed fetal membranes)

SPC

summary of product characteristics

Suspected preterm labour

(a woman is in suspected preterm labour if she has reported symptoms of preterm labour and has had a clinical assessment (including a speculum or digital vaginal examination) that confirms the possibility of preterm labour but rules out established labour)

Symptoms of preterm labour

(a woman has presented before 37^{+0} weeks of pregnancy reporting symptoms that might be indicative of preterm labour (such as abdominal pain), but no clinical assessment (including speculum or digital vaginal examination) has taken place)

Sources

Preterm labour and birth (2015 updated 2019) NICE guideline NG25

Biomarker tests to help diagnose preterm labour in women with intact membranes (2018) NICE diagnostics guidance 33

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.