NICE National Institute for Health and Care Excellence

NICE Pathways

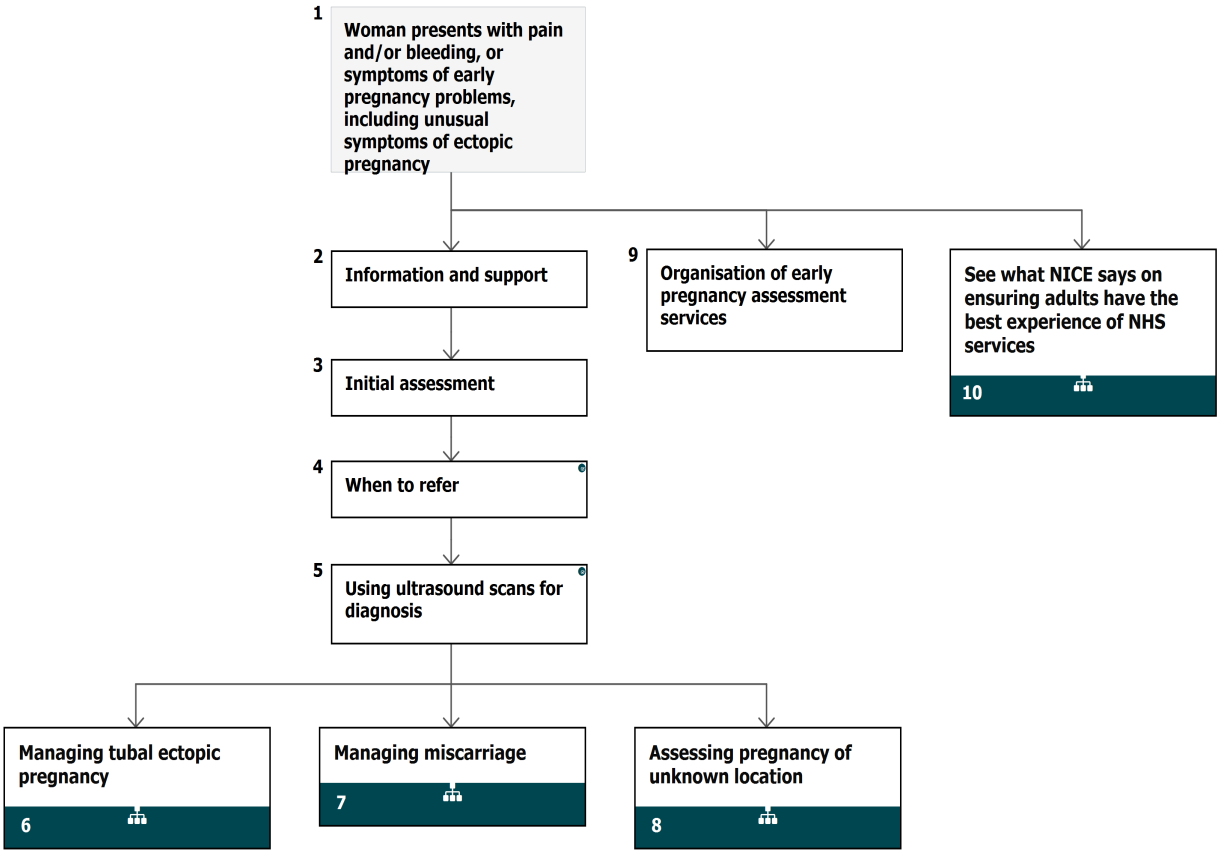
Ectopic pregnancy and miscarriage overview

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/ectopic-pregnancy-and-miscarriage
NICE Pathway last updated: 16 April 2019

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



1 Woman presents with pain and/or bleeding, or symptoms of early pregnancy problems, including unusual symptoms of ectopic pregnancy

No additional information

2 Information and support

Treat all women with early pregnancy complications with dignity and respect. Be aware that women will react to complications or the loss of a pregnancy in different ways. Provide all women with information and support in a sensitive manner, taking into account their individual circumstances and emotional response. For more guidance about providing information, see what NICE says on patient experience in adult NHS services.

Healthcare professionals providing care for women with early pregnancy complications in any setting should be aware that early pregnancy complications can cause significant distress for some women and their partners. Healthcare professionals providing care for these women should be given training in how to communicate sensitively and breaking bad news. Non-clinical staff such as receptionists working in settings where early pregnancy care is provided should also be given training on how to communicate sensitively with women who experience early pregnancy complications. For more guidance about support, see what NICE says on antenatal and postnatal mental health.

Throughout a woman's care, provide the woman and (with her consent) her partner specific evidence-based information in a variety of formats. This should include (as appropriate):

- when and how to seek help if existing symptoms worsen or new symptoms develop, including a 24-hour contact telephone number
- what to expect during the time she is waiting for an ultrasound scan
- what to expect during the course of her care (including expectant management), such as the potential length and extent of pain and/or bleeding, and possible side effects. This information should be tailored to the care she receives
- information about post-operative care (for women undergoing surgery)
- what to expect during the recovery period – for example, when it is possible to resume sexual activity and/or try to conceive again, and what to do if she becomes pregnant again. This information should be tailored to the care she receives
- information about the likely impact of her treatment on future fertility
- where to access support and counselling services, including leaflets, web addresses and

- helpline numbers for support organisations.

Ensure that sufficient time is available to discuss these issues with women during the course of their care and arrange an additional appointment if more time is needed.

After an early pregnancy loss, offer the woman the option of a follow-up appointment with a healthcare professional of her choice.

NICE has written information for the public on ectopic pregnancy and miscarriage.

3 Initial assessment

During clinical assessment of women of reproductive age, be aware that:

- they may be pregnant, and think about offering a pregnancy test even when symptoms are non-specific **and**
- the symptoms and signs of ectopic pregnancy can resemble the common symptoms and signs of other conditions – for example, gastrointestinal conditions or urinary tract infection.

Exclude the possibility of ectopic pregnancy, even in the absence of risk factors (such as previous ectopic pregnancy), because about a third of women with an ectopic pregnancy will have no known risk factors.

Use expectant management for women with a pregnancy of less than 6 weeks gestation who are bleeding but not in pain, and who have no risk factors, such as a previous ectopic pregnancy. Advise these women:

- to return if bleeding continues or pain develops
- to repeat a urine pregnancy test after 7–10 days and to return if it is positive
- a negative pregnancy test means that the pregnancy has miscarried.

Symptoms and signs of ectopic pregnancy

Be aware that atypical presentation for ectopic pregnancy is common.

Symptoms

Be aware that ectopic pregnancy can present with a variety of symptoms. Even if a symptom is less common, it may still be significant. Symptoms of ectopic pregnancy include:

- common symptoms:

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  - abdominal or pelvic pain
  - amenorrhoea or missed period
  - vaginal bleeding with or without clots
- other reported symptoms:
  - breast tenderness
  - gastrointestinal symptoms
  - dizziness, fainting or syncope
  - shoulder tip pain
  - urinary symptoms
  - passage of tissue
  - rectal pressure or pain on defecation.

Signs

Be aware that ectopic pregnancy can present with a variety of signs on examination by a healthcare professional. Signs of ectopic pregnancy include:

- more common signs:
  - pelvic tenderness
  - adnexal tenderness
  - abdominal tenderness
- other reported signs:
  - cervical motion tenderness
  - rebound tenderness or peritoneal signs
  - pallor
  - abdominal distension
  - enlarged uterus
  - tachycardia (more than 100 beats per minute) or hypotension (less than 100/60 mmHg)
  - shock or collapse
  - orthostatic hypotension.

4 When to refer

Refer to A&E

Refer women who are haemodynamically unstable, or in whom there is significant concern about the degree of pain or bleeding, directly to A&E.

Refer to an early pregnancy assessment service

Refer immediately to an early pregnancy assessment service (or out-of-hours gynaecology service if the early pregnancy assessment service is not available) for further assessment of women with a positive pregnancy test and the following on examination:

- pain and abdominal tenderness **or**
- pelvic tenderness **or**
- cervical motion tenderness.

Refer to an early pregnancy assessment service (or out-of-hours gynaecology service if the early pregnancy assessment service is not available) women with bleeding or other symptoms and signs of early pregnancy complications who have:

- pain **or**
- a pregnancy of 6 weeks gestation or more **or**
- a pregnancy of uncertain gestation.

The urgency of this referral depends on the clinical situation.

Refer women who return with worsening symptoms and signs that could suggest an ectopic pregnancy to an early pregnancy assessment service (or out-of-hours gynaecology service if the early pregnancy assessment service is not available) for further assessment. The decision about whether she should be seen immediately or within 24 hours will depend on the clinical situation.

If a woman is referred to an early pregnancy assessment service (or out-of-hours gynaecology service if the early pregnancy assessment service is not available), explain the reasons for the referral and what she can expect when she arrives there.

Early pregnancy assessment services should accept self-referrals from women who have had recurrent miscarriage or a previous ectopic or molar pregnancy. Although additional care for women with recurrent miscarriage is not included in the scope of this guideline, the Guideline

Development Group recognised that it is common clinical practice to allow these women to self-refer to an early pregnancy assessment service and wished this to remain the case. All other women with pain and/or bleeding should be assessed by a healthcare professional (such as a GP, accident and emergency [A&E] doctor, midwife or nurse) before referral to an early pregnancy assessment service.

Ensure that a system is in place to enable women referred to their local early pregnancy assessment service to attend within 24 hours if the clinical situation warrants this. If the service is not available, and the clinical symptoms warrant further assessment, refer women to the nearest accessible facility that offers specialist clinical assessment and ultrasound scanning (such as a gynaecology ward or A&E service with access to specialist gynaecology support).

Quality standards

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

1. Timely referral to early pregnancy assessment services

5 Using ultrasound scans for diagnosis

Offer women who attend an early pregnancy assessment service (or out-of-hours gynaecology service if the early pregnancy assessment service is not available) a transvaginal ultrasound scan to identify the location of the pregnancy and whether there is a fetal pole and heartbeat.

Consider a transabdominal ultrasound scan for women with an enlarged uterus or other pelvic pathology, such as fibroids or an ovarian cyst.

If a transvaginal ultrasound scan is unacceptable to the woman, offer a transabdominal ultrasound scan and explain the limitations of this method of scanning.

All ultrasound scans should be performed or directly supervised and reviewed by appropriately qualified healthcare professionals, with training in, and experience of, diagnosing ectopic pregnancies.

Diagnosing viable intrauterine pregnancy

Look for a fetal heartbeat

When performing an ultrasound scan to determine the viability of an intrauterine pregnancy, first

look to identify a fetal heartbeat. If there is no visible heartbeat but there is a visible fetal pole, measure the crown–rump length. Only measure the mean gestational sac diameter if the fetal pole is not visible.

Do not use gestational age from the last menstrual period alone to determine whether a fetal heartbeat should be visible.

Advise a woman with vaginal bleeding and a confirmed intrauterine pregnancy with a fetal heartbeat that:

- if her bleeding gets worse, or persists beyond 14 days, she should return for further assessment
- if the bleeding stops, she should start or continue routine antenatal care.

See what NICE says on antenatal care for uncomplicated pregnancies.

Measure crown–rump length

If the crown–rump length is less than 7.0 mm with a transvaginal ultrasound scan and there is no visible heartbeat, perform a second scan a minimum of 7 days after the first before making a diagnosis. Further scans may be needed before a diagnosis can be made.

If the crown–rump length is 7.0 mm or more with a transvaginal ultrasound scan and there is no visible heartbeat:

- seek a second opinion on the viability of the pregnancy **and/or**
- perform a second scan a minimum of 7 days after the first before making a diagnosis.

If there is no visible heartbeat when the crown–rump length is measured using a transabdominal ultrasound scan:

- record the size of the crown–rump length **and**
- perform a second scan a minimum of 14 days after the first before making a diagnosis.

Measure mean gestational sac diameter

If the mean gestational sac diameter is less than 25.0 mm with a transvaginal ultrasound scan and there is no visible fetal pole, perform a second scan a minimum of 7 days after the first before making a diagnosis. Further scans may be needed before a diagnosis can be made.

If the mean gestational sac diameter is 25.0 mm or more using a transvaginal ultrasound scan

and there is no visible fetal pole:

- seek a second opinion on the viability of the pregnancy **and/or**
- perform a second scan a minimum of 7 days after the first before making a diagnosis.

If there is no visible fetal pole and the mean gestational sac diameter is measured using a transabdominal ultrasound scan:

- record the size of the mean gestational sac diameter **and**
- perform a second scan a minimum of 14 days after the first before making a diagnosis.

Inform women what to expect while waiting for a repeat scan and that waiting for a repeat scan has no detrimental effects on the outcome of the pregnancy.

Inform women that the date of their last menstrual period may not give an accurate representation of gestational age because of variability in the menstrual cycle.

Give women a 24-hour contact telephone number so that they can speak to someone with experience of caring for women with early pregnancy complications who understands their needs and can advise on appropriate care. See also information and support [See page 3] in this interactive flowchart for details of further information that should be provided.

Diagnosing tubal ectopic pregnancy

When carrying out a transvaginal ultrasound scan in early pregnancy, look for signs indicating there is a tubal ectopic pregnancy:

- an adnexal mass, moving separate to the ovary (sometimes called the 'sliding sign'), comprising a gestational sac containing a yolk sac, **or**
- an adnexal mass, moving separately to the ovary (sometimes called the 'sliding sign'), comprising a gestational sac and fetal pole (with or without fetal heartbeat).

When carrying out a transvaginal ultrasound scan in early pregnancy, look for signs indicating a high probability of a tubal ectopic pregnancy:

- an adnexal mass, moving separately to the ovary (sometimes called the 'sliding sign'), with an empty gestational sac (sometimes described as a 'tubal ring' or 'bagel sign'), **or**
- a complex, inhomogeneous adnexal mass, moving separate to the ovary (sometimes called the 'sliding sign')

If these features are present, take into account other intrauterine and adnexal features on the scan, the woman's clinical presentation and serum hCG levels before making a diagnosis .

When carrying out a transvaginal ultrasound scan in early pregnancy, look for these signs indicating a possible ectopic pregnancy:

- an empty uterus, **or**
- a collection of fluid within the uterine cavity (sometimes described as a pseudo-sac). This collection of fluid must be differentiated from an early intrauterine sac, which is identified by the presence of an eccentrically-located hypoechoic structure with a double decidual sign (gestational sac surrounded by two concentric echogenic rings) in the endometrium.

If these features are present, take into account other intrauterine and adnexal features on the scan, the woman's clinical presentation and serum hCG levels before making a diagnosis. (See also recommendations on assessing pregnancy of unknown location in this interactive flowchart).

When carrying out a transabdominal or transvaginal ultrasound scan in early pregnancy, look for a moderate to large amount of free fluid in the peritoneal cavity or Pouch of Douglas, which might represent haemoperitoneum. If this is present, take into account other intrauterine and adnexal features on the scan, the woman's clinical presentation and hCG levels before making a diagnosis.

When carrying out a transabdominal or transvaginal ultrasound scan during early pregnancy, scan the uterus and adnexae to see if there is a heterotopic pregnancy.

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

Diagnosing miscarriage

Inform women that the diagnosis of miscarriage using 1 ultrasound scan cannot be guaranteed to be 100% accurate and there is a small chance that the diagnosis may be incorrect, particularly at very early gestational ages.

When diagnosing complete miscarriage on an ultrasound scan, in the absence of a previous scan confirming an intrauterine pregnancy, always be aware of the possibility of a pregnancy of unknown location. Advise these women to return for follow-up (for example, hCG levels, ultrasound scans) until a definitive diagnosis is obtained. See recommendations on assessing pregnancy of unknown location in this interactive flow chart.

NICE has written information for the public on ectopic pregnancy and miscarriage.

Quality standards

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

2. Ultrasound to identify miscarriage or tubal ectopic pregnancy

3. Confirming a diagnosis of miscarriage

6 Managing tubal ectopic pregnancy

See Ectopic pregnancy and miscarriage / Managing tubal ectopic pregnancy

7 Managing miscarriage

See Ectopic pregnancy and miscarriage / Managing miscarriage

8 Assessing pregnancy of unknown location

See Ectopic pregnancy and miscarriage / Assessing pregnancy of unknown location

9 Organisation of early pregnancy assessment services

Regional services should be organised so that an early pregnancy assessment service is available 7 days a week for women with early pregnancy complications, where scanning can be carried out and decisions about management made.

An early pregnancy assessment service should:

- be a dedicated service provided by healthcare professionals competent to diagnose and care for women with pain and/or bleeding in early pregnancy **and**
- offer ultrasound and assessment of serum hCG levels **and**
- be staffed by healthcare professionals with training in sensitive communication and breaking bad news.

All healthcare professionals involved in the care of women of reproductive age should have access to pregnancy tests.

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

See Patient experience in adult NHS services

Glossary

A&E

accident and emergency

Early pregnancy

in the first trimester (that is, up to 13 completed weeks of pregnancy)

Expectant management

a management approach, also called 'wait and watch', when no medical or surgical treatment is given. The aim is to see if the condition will resolve naturally

hCG

human chorionic gonadotrophin

Pregnancy of unknown location

when a woman has a positive pregnancy test, but no intrauterine or extrauterine pregnancy can be seen with a transvaginal ultrasound scan

Sources

Ectopic pregnancy and miscarriage: diagnosis and initial management (2019) NICE guideline NG126

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.