

Endometriosis: diagnosis and management

NICE guideline

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Your responsibility

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.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the [Yellow Card Scheme](#).

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.

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This guideline is the basis of QS172.

Overview

This guideline covers diagnosing and managing endometriosis. It aims to raise awareness of the symptoms of endometriosis, and to provide clear advice on what action to take when women with signs and symptoms first present in healthcare settings. It also provides advice on the range of treatments available.

The [Royal College of Obstetricians and Gynaecologists](#) has produced guidance for gynaecological services during the COVID-19 pandemic.

This guideline updates and replaces the recommendations on endometriosis in [NICE's guideline on fertility problems](#), which includes recommendations on fertility tests and treatments such as assisted reproduction.

Who is it for?

- Healthcare professionals
- Commissioners and providers
- Women with suspected or confirmed endometriosis, their families and carers

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.

NICE has also produced a [patient decision aid on hormonal treatment for endometriosis](#).

1.1 Organisation of care

- 1.1.1 Set up a [managed clinical network](#) for women with suspected or confirmed endometriosis, consisting of community services (including GPs, practice nurses, school nurses and sexual health services), gynaecology services (see the [recommendation on gynaecology services](#)) and specialist endometriosis services (see the [recommendation on specialist endometriosis services \[endometriosis centres\]](#)).
- 1.1.2 Community, gynaecology and specialist endometriosis services (endometriosis centres) should:
- provide coordinated care for women with suspected or confirmed endometriosis
 - have processes in place for prompt diagnosis and treatment of endometriosis, because delays can affect quality of life and result in disease progression.

Gynaecology services for women with suspected or confirmed

endometriosis

1.1.3 Gynaecology services for women with suspected or confirmed endometriosis should have access to:

- a gynaecologist with expertise in diagnosing and managing endometriosis, including training and skills in laparoscopic surgery
- a gynaecology specialist nurse with expertise in endometriosis
- a multidisciplinary pain management service
- a healthcare professional with an interest in gynaecological imaging
- fertility services.

Specialist endometriosis services (endometriosis centres)

1.1.4 Specialist endometriosis services (endometriosis centres) should have access to:

- gynaecologists with expertise in diagnosing and managing endometriosis, including advanced laparoscopic surgical skills
- a colorectal surgeon with an interest in endometriosis
- a urologist with an interest in endometriosis
- an endometriosis specialist nurse
- a multidisciplinary pain management service with expertise in pelvic pain
- a healthcare professional with specialist expertise in gynaecological imaging of endometriosis
- advanced diagnostic facilities (for example, radiology and histopathology)
- fertility services.

1.2 Endometriosis information and support

- 1.2.1 Be aware that endometriosis can be a long-term condition, and can have a significant physical, sexual, psychological and social impact. Women may have complex needs and require long-term support.
- 1.2.2 Assess the individual information and support needs of women with suspected or confirmed endometriosis, taking into account their circumstances, symptoms, priorities, desire for fertility, aspects of daily living, work and study, cultural background, and their physical, psychosexual and emotional needs.
- 1.2.3 Provide information and support for women with suspected or confirmed endometriosis, which should include:
- what endometriosis is
 - endometriosis symptoms and signs
 - how endometriosis is diagnosed
 - treatment options
 - local support groups, online forums and national charities, and how to access them.
- 1.2.4 If women agree, involve their partner (and/or other family members or people important to them) and include them in discussions. For more guidance on providing information to people and involving family members and carers, see the [NICE guideline on patient experience in adult NHS services](#).

1.3 Endometriosis symptoms and signs

- 1.3.1 Suspect endometriosis in women (including young women aged 17 and under) presenting with 1 or more of the following symptoms or signs:
- [chronic pelvic pain](#)
 - period-related pain (dysmenorrhoea) affecting daily activities and quality of life

- deep pain during or after sexual intercourse
- period-related or cyclical gastrointestinal symptoms, in particular, painful bowel movements
- period-related or cyclical urinary symptoms, in particular, blood in the urine or pain passing urine
- infertility in association with 1 or more of the above.

1.3.2 Inform women with suspected or confirmed endometriosis that keeping a pain and symptom diary can aid discussions.

1.3.3 Offer an abdominal and pelvic examination to women with suspected endometriosis to identify abdominal masses and pelvic signs, such as reduced organ mobility and enlargement, tender nodularity in the posterior vaginal fornix, and visible vaginal endometriotic lesions.

1.3.4 If a pelvic examination is not appropriate, offer an abdominal examination to exclude abdominal masses.

1.4 Referral for women with suspected or confirmed endometriosis

1.4.1 Consider referring women to a gynaecology service (see the [recommendation on gynaecology services](#)) for an ultrasound or gynaecology opinion if:

- they have severe, persistent or recurrent symptoms of endometriosis
- they have pelvic signs of endometriosis **or**
- initial management is not effective, not tolerated or is contraindicated.

1.4.2 Refer women to a specialist endometriosis service (see the [recommendation on specialist endometriosis services \[endometriosis centre\]](#)) if they have suspected or confirmed:

- deep endometriosis involving the bowel, bladder or ureter, or

- endometriosis outside the pelvic cavity.

1.4.3 Consider referring young women (aged 17 and under) with suspected or confirmed endometriosis to a [paediatric and adolescent gynaecology service](#), gynaecology service or specialist endometriosis service (endometriosis centre), depending on local service provision.

1.5 Diagnosing endometriosis

1.5.1 Do not exclude the possibility of endometriosis if the abdominal or pelvic examination, ultrasound or MRI are normal. If clinical suspicion remains or symptoms persist, consider referral for further assessment and investigation.

Ultrasound

1.5.2 Consider transvaginal ultrasound:

- to investigate suspected endometriosis even if the pelvic and/or abdominal examination is normal
- to identify endometriomas and deep endometriosis involving the bowel, bladder or ureter.

1.5.3 If a transvaginal scan is not appropriate, consider a transabdominal ultrasound scan of the pelvis.

Serum CA125

1.5.4 Do not use serum CA125 to diagnose endometriosis.

1.5.5 If a coincidentally reported serum CA125 level is available, be aware that:

- a raised serum CA125 (that is, 35 IU/ml or more) may be consistent with having endometriosis
- endometriosis may be present despite a normal serum CA125 (less than 35 IU/ml).

MRI

- 1.5.6 Do not use pelvic MRI as the primary investigation to diagnose endometriosis in women with symptoms or signs suggestive of endometriosis.
- 1.5.7 Consider pelvic MRI to assess the extent of deep endometriosis involving the bowel, bladder or ureter.
- 1.5.8 Ensure that pelvic MRI scans are interpreted by a healthcare professional with specialist expertise in gynaecological imaging.

Diagnostic laparoscopy

Also refer to the [section on surgical management](#) and the [section on surgical management if fertility is a priority](#).

- 1.5.9 Consider laparoscopy to diagnose endometriosis in women with suspected endometriosis, even if the ultrasound was normal.
- 1.5.10 For women with suspected deep endometriosis involving the bowel, bladder or ureter, consider a pelvic ultrasound or MRI before an operative laparoscopy.
- 1.5.11 During a diagnostic laparoscopy, a gynaecologist with training and skills in laparoscopic surgery for endometriosis should perform a systematic inspection of the pelvis.
- 1.5.12 During a diagnostic laparoscopy, consider taking a biopsy of suspected endometriosis:
 - to confirm the diagnosis of endometriosis (be aware that a negative histological result does not exclude endometriosis)
 - to exclude malignancy if an endometrioma is treated but not excised.
- 1.5.13 If a full, systematic laparoscopy is performed and is normal, explain to the woman that she does not have endometriosis, and offer alternative management.

1.6 Staging systems

- 1.6.1 Offer endometriosis treatment according to the woman's symptoms, preferences and priorities, rather than the stage of the endometriosis.
- 1.6.2 When endometriosis is diagnosed, the gynaecologist should document a detailed description of the appearance and site of endometriosis.

1.7 Monitoring for women with confirmed endometriosis

- 1.7.1 Consider outpatient follow-up (with or without examination and pelvic imaging) for women with confirmed endometriosis, particularly women who choose not to have surgery, if they have:
 - deep endometriosis involving the bowel, bladder or ureter **or**
 - 1 or more endometrioma that is larger than 3 cm.

1.8 Pharmacological pain management

Analgesics

- 1.8.1 For women with endometriosis-related pain, discuss the benefits and risks of analgesics, taking into account any comorbidities and the woman's preferences.
- 1.8.2 Consider a short trial (for example, 3 months) of paracetamol or a non-steroidal anti-inflammatory drug (NSAID) alone or in combination for first-line management of endometriosis-related pain.
- 1.8.3 If a trial of paracetamol or an NSAID (alone or in combination) does not provide adequate pain relief, consider other forms of pain management and referral for further assessment.

Neuromodulators and neuropathic pain treatments

- 1.8.4 For recommendations on using neuromodulators to treat neuropathic pain, see the [NICE guideline on neuropathic pain](#).

Hormonal treatments

NICE has produced a [patient decision aid on hormonal treatment for endometriosis](#).

- 1.8.5 Explain to women with suspected or confirmed endometriosis that hormonal treatment for endometriosis can reduce pain and has no permanent negative effect on subsequent fertility.
- 1.8.6 Offer hormonal treatment (for example, the combined oral contraceptive pill or a progestogen) to women with suspected, confirmed or recurrent endometriosis.

In September 2017, this was off-label use for some combined oral contraceptive pills or progestogens. See [NICE's information on prescribing medicines](#).

- 1.8.7 If initial hormonal treatment for endometriosis is not effective, not tolerated or is contraindicated, refer the woman to a gynaecology service (see the [recommendation on gynaecology services](#)), specialist endometriosis service (see the [recommendation on specialist endometriosis services \[endometriosis centres\]](#)) or [paediatric and adolescent gynaecology service](#) for investigation and treatment options.

1.9 Non-pharmacological management

- 1.9.1 Advise women that the available evidence does not support the use of traditional Chinese medicine or other Chinese herbal medicines or supplements for treating endometriosis.

1.10 Surgical management

- 1.10.1 Ask women with suspected or confirmed endometriosis about their

symptoms, preferences and priorities with respect to pain and fertility, to guide surgical decision-making.

- 1.10.2 Discuss surgical management options with women with suspected or confirmed endometriosis. Discussions may include:
- what a laparoscopy involves
 - that laparoscopy may include surgical treatment (with prior patient consent)
 - how laparoscopic surgery could affect endometriosis symptoms
 - the possible benefits and risks of laparoscopic surgery
 - the possible need for further surgery (for example, for recurrent endometriosis or if complications arise)
 - the possible need for further planned surgery for deep endometriosis involving the bowel, bladder or ureter.
- 1.10.3 Perform surgery for endometriosis laparoscopically unless there are contraindications.
- 1.10.4 During a laparoscopy to diagnose endometriosis, consider laparoscopic treatment of the following, if present:
- peritoneal endometriosis not involving the bowel, bladder or ureter
 - uncomplicated ovarian endometriomas.
- 1.10.5 As an adjunct to surgery for deep endometriosis involving the bowel, bladder or ureter, consider 3 months of gonadotrophin-releasing hormone agonists before surgery.
- In September 2017, this was off-label use for some gonadotrophin-releasing hormone agonists. See [NICE's information on prescribing medicines](#).
- 1.10.6 Consider excision rather than ablation to treat endometriomas, taking into account the woman's desire for fertility and her ovarian reserve. Also see the [section on ovarian reserve testing in the NICE guideline on](#)

[fertility problems](#).

Combination treatments

- 1.10.7 After laparoscopic excision or ablation of endometriosis, consider hormonal treatment (with, for example, the combined oral contraceptive pill), to prolong the benefits of surgery and manage symptoms.

In September 2017, this was off-label use for some hormonal treatments (including some combined oral contraceptive pills). See [NICE's information on prescribing medicines](#).

Hysterectomy in combination with surgical management

- 1.10.8 If hysterectomy is indicated (for example, if the woman has adenomyosis or heavy menstrual bleeding that has not responded to other treatments), excise all visible endometriotic lesions at the time of the hysterectomy.
- 1.10.9 Perform hysterectomy (with or without oophorectomy) laparoscopically when combined with surgical treatment of endometriosis, unless there are contraindications.
- 1.10.10 For women thinking about having a hysterectomy, discuss:
- what a hysterectomy involves and when it may be needed
 - the possible benefits and risks of hysterectomy
 - the possible benefits and risks of having oophorectomy at the same time
 - how a hysterectomy (with or without oophorectomy) could affect endometriosis symptoms
 - that hysterectomy should be combined with excision of all visible endometriotic lesions
 - endometriosis recurrence and the possible need for further surgery

- the possible benefits and risks of hormone replacement therapy after hysterectomy with oophorectomy (also see the [NICE guideline on menopause](#)).

1.11 Surgical management if fertility is a priority

The recommendations in this section should be interpreted within the context of [NICE's guideline on fertility problems](#). The management of endometriosis-related subfertility should have multidisciplinary team involvement with input from a fertility specialist. This should include the recommended diagnostic fertility tests or preoperative tests, as well as other recommended fertility treatments such as assisted reproduction that are included in the [NICE guideline on fertility problems](#).

- 1.11.1 Offer excision or ablation of endometriosis plus adhesiolysis for endometriosis not involving the bowel, bladder or ureter, because this improves the chance of spontaneous pregnancy.
- 1.11.2 Offer laparoscopic [ovarian cystectomy](#) with excision of the cyst wall to women with endometriomas, because this improves the chance of spontaneous pregnancy and reduces recurrence. Take into account the woman's ovarian reserve. (Also see the [section on ovarian reserve testing in the NICE guideline on fertility problems](#).)
- 1.11.3 Discuss the benefits and risks of laparoscopic surgery as a treatment option for women who have deep endometriosis involving the bowel, bladder or ureter and who are trying to conceive (working with a fertility specialist). Topics to discuss may include:
- whether laparoscopic surgery may alter the chance of future pregnancy
 - the possible impact on ovarian reserve (also see the [section on ovarian reserve testing in the NICE guideline on fertility problems](#))
 - the possible impact on fertility if complications arise
 - alternatives to surgery
 - other fertility factors.
- 1.11.4 Do not offer hormonal treatment to women with endometriosis who are

trying to conceive, because it does not improve spontaneous pregnancy rates.

Terms used in this guideline

Chronic pelvic pain

Defined as pelvic pain lasting for 6 months or longer.

Paediatric and adolescent gynaecology service

Paediatric and adolescent gynaecology services are hospital-based, multidisciplinary specialist services for girls and young women (usually aged under 18).

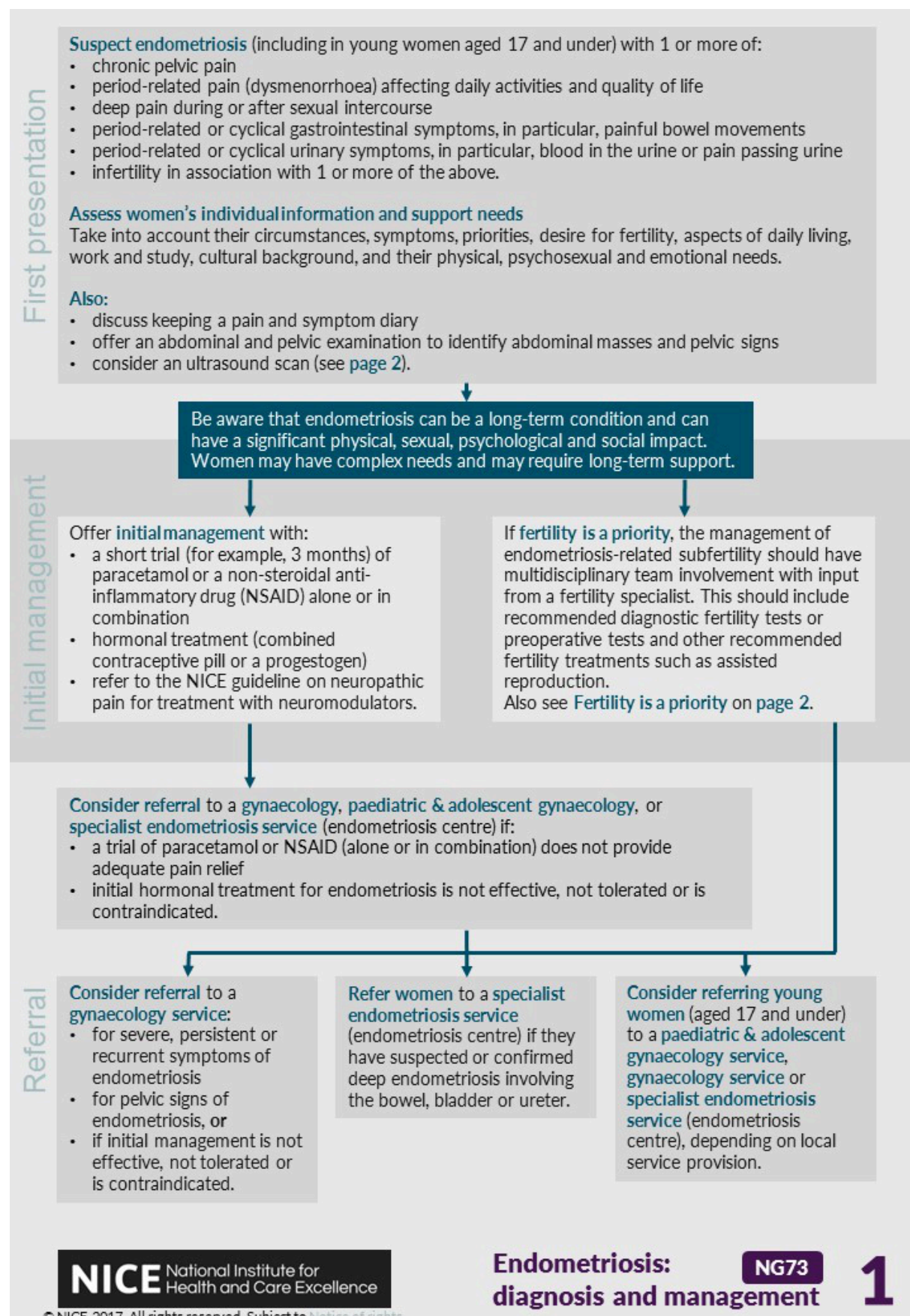
Ovarian cystectomy

Ovarian cystectomy is a surgical excision of an ovarian endometriotic cyst. An ovarian endometrioma is a cystic mass arising from ectopic endometrial tissue within the ovary.

Managed clinical networks

Linked groups of healthcare professionals from primary, secondary and tertiary care providing a coordinated patient pathway. Responsibility for setting up these networks will depend on existing service provision and location.

Endometriosis algorithm





Context

Endometriosis is one of the most common gynaecological diseases needing treatment. It is defined as the growth of endometrial-like tissue (the womb lining) outside the uterus (womb). Endometriosis is mainly a disease of the reproductive years and, although its exact cause is unknown, it is hormone mediated and is associated with menstruation.

Endometriosis is typically associated with symptoms such as pelvic pain, painful periods and subfertility. Endometriosis is also associated with a lower quality of life. Women with endometriosis report pain, which can be frequent, chronic and/or severe, as well as tiredness, more sick days, and a significant physical, sexual, psychological and social impact. Endometriosis is an important cause of subfertility and this can also have a significant effect on quality of life.

Women may also have endometriosis without symptoms, so it is difficult to know how common the disease is in the population. It is also unclear whether endometriosis is always progressive or can remain stable or improve with time.

Delayed diagnosis is a significant problem for women with endometriosis. Patient self-help groups emphasise that healthcare professionals often do not recognise the importance of symptoms or consider endometriosis as a possibility. In addition, women can delay seeking help because of a perception that pelvic pain is normal. Delays of 4 to 10 years can occur between first reporting symptoms and confirming the diagnosis. Many women report that the delay in diagnosis leads to increased personal suffering, prolonged ill health and a disease state that is more difficult to treat.

Diagnosis can only be made definitively by laparoscopic visualisation of the pelvis, but other, less invasive methods may be useful in assisting diagnosis, including ultrasound. Management options for endometriosis include pharmacological, non-pharmacological and surgical treatments. Endometriosis is an oestrogen-dependent condition. Most drug treatments for endometriosis work by suppressing ovarian function, and are contraceptive. Surgical treatment aims to remove or destroy endometriotic lesions. The choice of treatment depends on the woman's preferences and priorities in terms of pain management and/or fertility.

Endometriosis can be a chronic condition affecting women throughout their reproductive lives (and sometimes beyond). Women's priorities and preferences may change over time,

and management strategies should change to reflect this.

Women with endometriosis typically present to community services (including GPs, practice nurses, school nurses and sexual health services) with pain, and may then be referred to gynaecology services for diagnosis and management. Some women may present to fertility services. Complex surgical treatment is carried out in specialist endometriosis services (endometriosis centres), which incorporate a multidisciplinary team.

This guideline makes recommendations for the diagnosis and management of endometriosis in community services, gynaecology services and specialist endometriosis services (endometriosis centres).

The guideline also covers the care of women with confirmed or suspected endometriosis, including recurrent endometriosis. It includes women who do not have symptoms but have endometriosis discovered incidentally. Special consideration was given to young women (aged 17 and under). The guideline does not cover the investigation of fertility problems related to endometriosis, care of women with endometriosis occurring outside the pelvis, nor postmenopausal women.

Recommendations for research

The guideline committee has made the following recommendations for research.

1 Pain management programmes

Are pain management programmes a clinically and cost-effective intervention for women with endometriosis?

Why this is important

Pain is one of the most debilitating symptoms of endometriosis. Endometriosis-related pain can be acute or chronic, and can adversely affect the woman's quality of life, ability to work, and can affect partners and their families.

Pain management programmes have been found to be effective in managing chronic pelvic pain, and can improve quality of life. However, it is unclear how much of this small evidence base can be generalised to women with endometriosis for which evidence is lacking. Furthermore, pain management programmes have not been compared with other treatments available for endometriosis. Pain management programmes promote self-management and are often provided in the community.

If found to be effective for endometriosis, pain management programmes would provide an additional or alternative treatment option for women experiencing endometriosis-related pain. Groups of particular interest are women for whom hormonal and surgical options have been exhausted, women who would prefer an alternative to a pharmacological or surgical approach, and women who may be prioritising trying to conceive.

2 Laparoscopic treatment of peritoneal endometriosis (excision or ablation)

Is laparoscopic treatment (excision or ablation) of peritoneal disease in isolation effective for managing endometriosis-related pain?

Why this is important

Isolated peritoneal endometriosis can be an incidental finding in women who may or may not experience pain or other symptoms.

Research is needed to determine whether laparoscopic treatment of isolated peritoneal endometriosis in women with endometriosis-related pain results in a clinical and cost-effective improvement in symptoms.

The current literature does not provide a clear answer because the stage of endometriosis is often not sufficiently clearly defined in research studies, and the treatment modalities used are multiple and varied. The resultant amalgamation of various stages of endometriosis and variable treatment modalities leads to loss of certainty of outcome in this specific group of women.

Establishing whether treating isolated peritoneal endometriosis is cost effective is important, because this forms a large part of the workload in general gynaecology, and uses considerable resources.

3 Lifestyle interventions (diet and exercise)

Are specialist lifestyle interventions (diet and exercise) effective, compared with no specialist lifestyle interventions, for women with endometriosis?

Why this is important

Endometriosis is a long-term condition that can cause acute and chronic pain, and fatigue. It has a significant and sometimes severe impact on the woman's quality of life and activities of daily living, including relationships and sexuality, ability to work, fertility, fitness and mental health.

Supporting self-management is critical to improving quality of life for women living with endometriosis. In order to successfully self-manage the condition, women need evidence-based, easily accessible information about the condition and ways of managing it that support surgical and medical treatment. However, no high-quality research was identified on the effectiveness of lifestyle interventions such as diet or exercise and other non-medical treatments in reducing pain, fatigue and other symptoms.

Studies should aim to provide evidence-based options to support self-management of endometriosis. This would improve the quality of life of women with endometriosis, enabling them to manage pain and fatigue, and reducing the negative impact on their career, relationships, sex lives, fertility, and physical and emotional wellbeing.

4 Information and support

What information and support interventions are effective to help women with endometriosis deal with their symptoms and improve their quality of lives?

Why this is important

This guideline has identified that women with endometriosis and their partners feel that information and support is not always provided in the way that best meet their needs. However, the direct effectiveness of different types or formats of information and support interventions on measurable outcomes such as health-related quality of life and level of function (for example, activities of daily living) have not been tested. Good practice in this area in non-specialist and specialist settings can improve satisfaction with the care provided. It may also improve quality of life and positively affect relationships between healthcare professionals and the woman with endometriosis, as well as the woman's personal family relationships.

Finding more information and committee details

You can see everything NICE says on this topic in the [NICE Pathway on endometriosis](#).

To find NICE guidance on related topics, including guidance in development, see the [NICE webpages on gynaecological conditions](#) and [fertility](#).

For full details of the evidence and the guideline committee's discussions, see the [full guideline](#). You can also find information about [how the guideline was developed](#), including details of the committee.

NICE has produced [tools and resources to help you put this guideline into practice](#). For general help and advice on putting NICE guidelines into practice, see [resources to help you put guidance into practice](#).

Update information

Minor changes since publication

December 2021: We amended the [recommendations on referral](#) to clarify that women with endometriosis outside the pelvic cavity should be referred to a specialist endometriosis centre. We will not make further changes to the guideline. For more information, see the [surveillance report](#).

December 2019: We added links to our patient decision aid on hormonal treatment for endometriosis.

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Accreditation

