

Diagnosis and Management of Endometriosis in New Zealand

Citation: Ministry of Health. 2020. *Diagnosis and Management of Endometriosis in New Zealand*. Wellington: Ministry of Health.

Published in March 2020 by the Ministry of Health
PO Box 5013, Wellington 6140, New Zealand

ISBN 978-1-98-859772-0 (online)
HP 7347



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Purpose and context

This document aims to improve the diagnosis and management of endometriosis in New Zealand in primary and secondary health care through:

- early recognition of symptoms suspicious of endometriosis
- empowering primary health care practitioners to make a suspected diagnosis and commence management
- an appropriately trained, multidisciplinary workforce in secondary and tertiary care
- improved equity of access and health outcomes for patients.

While not a formal clinical guideline, it provides a consensus view of best-practice principles.

It was developed by a taskforce of representatives from the Ministry of Health, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), the Royal New Zealand College of General Practitioners (RNZCGP), the Faculty of Pain Medicine of the Australian and New Zealand College of Anaesthetists (FPMANZCA), Endometriosis New Zealand and those who live with endometriosis.

Given current variability in services across New Zealand, resource and cost implications of implementing the principles in this document have not been considered. The intention is that it will help health services and providers to identify and address barriers to best practice.

Introduction

Endometriosis is one of the most common gynaecological conditions. It is described as 'an inflammatory disease process, characterised by lesions of endometrial-like tissue outside the uterus that is associated with pelvic pain and/or infertility' and deep endometriosis as 'lesions extending deeper than 5mm under the peritoneal surface or those involving or distorting bowel, bladder, ureter or vagina' (Johnson et al 2016).

The cause of endometriosis is likely to be multifactorial with a high familial tendency. Endometriosis is typically associated with symptoms such as dysmenorrhoea, pelvic pain, dyspareunia, bloating and irritable bowel syndrome (IBS), fertility delay and infertility. Some people with endometriosis may be asymptomatic.

Women, girls and transgender, non-binary and gender-diverse people assigned female at birth with symptoms suspicious of endometriosis, typically present to community health services (eg, emergency services, GPs, pharmacists, practice nurses, school nurses and sexual health services). They may also present or be referred to gynaecology, gastroenterology or fertility services.

Delayed diagnosis is a significant problem for those with endometriosis and leads to delays in appropriate management.

A definitive diagnosis can only be made by laparoscopic visualisation and biopsy of the pelvis. Less invasive methods, including ultrasound, may also be useful to help diagnose and manage endometriosis.

Even without a definitive diagnosis, early management of a patient's symptoms is encouraged. People with endometriosis are at risk of developing persistent pain that may impact their mental health and wellbeing. Recognising symptoms and providing early effective care may reduce this risk and improve quality of life. A thorough assessment, including clinical and family history and, if appropriate, a clinical examination, greatly assist in early and timely management.

Medical, surgical and allied health management options have been considered and integrated into this document. The choice of treatment at any given point will depend upon a range of factors including age, current symptoms, clinical history, extent of the disease, co-morbidities, cultural considerations, and the patient's preferences and priorities which may include pain management and/or fertility.

It is also mindful of the Choosing Wisely¹ approach that aims to avoid low value and inappropriate clinical interventions and ensure patients and health professionals have well-informed conversations about their treatment options, leading to better decisions and outcomes.

¹ Choosing Wisely is a global initiative that aims to promote a culture where low value and inappropriate clinical interventions are avoided, and patients and health professionals have well-informed conversations around their treatment options, leading to better decisions and outcomes. For more information, see <https://choosingwisely.org.nz/>

Key principles

- A clinical diagnosis and appropriate management of endometriosis can be initiated in primary health care.
- A physical examination and an ultrasound assessment can help in forming a diagnosis; however, a normal physical examination and/or ultrasound does not exclude a diagnosis of endometriosis and, likewise, an abnormal examination or ultrasound does not confirm a diagnosis.
- Hormonal treatments may be successful at managing symptoms and achieving amenorrhoea is appropriate for those with troubling primary dysmenorrhoea, even if it is not due to endometriosis.
- Discuss and take into account fertility aspirations with the patient when developing a management plan for endometriosis.
- Do not perform a laparoscopy for diagnosis only; it should only occur if there is to be surgical treatment.
- Laparoscopy should be performed by gynaecologists with surgical skills in excising endometriosis lesions.
- Consideration of surgery should balance possible benefits in terms of management of infertility and pain relief, specific risks associated with excision of different types of endometriotic lesions, stage of disease and the patient's preference.
- There must be a robust informed consent process, with comprehensive discussion with the patient on management and treatment options, and their respective benefits and risks.
- There is very little research on the diagnosis and treatment of endometriosis in Māori. This should be a priority. Services must be available, accessible and acceptable to Māori. They should respect and acknowledge cultural identity and, where possible, incorporate tikanga Māori protocol. *He Korowai Oranga*, the Māori Health Strategy², sets the overarching framework that guides the Government and health and disability sector to achieve the best outcomes for Māori.
- Secondary care services should aim to incorporate a multidisciplinary team (MDT) approach (eg, gynaecology, pain management, fertility specialists, radiology, psychology, physiotherapy, dietetics, paediatrics/adolescent health) with expertise in endometriosis where possible.
- Only a minority of people with persistent pelvic pain will have endometriosis as the sole cause of their pain and surgery alone is unlikely to be sufficient to relieve their symptoms. In these cases a multidisciplinary approach is recommended.

² Available at: <https://www.health.govt.nz/our-work/populations/maori-health/he-korowai-oranga>

Detailed principles

Endometriosis symptoms and signs

1. Consider endometriosis from menarche onwards for patients presenting with one or more of the following symptoms or signs:
 - a) dysmenorrhoea limiting daily activities and quality of life
 - b) cyclical or non-cyclical pelvic pain
 - c) dyspareunia (deep pain during or after sexual intercourse)
 - d) abdominal bloating
 - e) unexplained gastrointestinal symptoms, particularly when cyclical in nature and pain related to bowel movements including dyschezia
 - f) unexplained urinary symptoms, particularly when cyclical in nature
 - g) sub-fertility that is otherwise unexplained.
2. Carry out a comprehensive systematic enquiry, including the wider context of the patient and their family history. The symptoms listed in 1 above are not specific or limited to endometriosis so consider other diagnoses.
3. Any physical assessment should be appropriate to the patient's age, social maturity and culture. Examine the whole patient, not just the pelvis, as there may be other contributors to symptoms.
4. For patients who have been sexually active, a speculum examination and bimanual examination may also be appropriate.³

Investigating suspected endometriosis

1. A normal physical examination and/or ultrasound does not exclude a diagnosis of endometriosis.
2. Ultrasound
 - a) Ultrasound using both abdominal and vaginal probes is recommended where appropriate. A vaginal probe may not be suitable for patients who have not been sexually active. Discretion, sensitive enquiry and consideration of cultural factors is mandatory.

³ See: <https://www.nzshs.org/guidelines>

- b) Stage I and II endometriosis are not visible on ultrasound examination. Stage III disease may sometimes be visible on ultrasound examination. Stage IV disease is often visible on ultrasound examination.⁴
 - c) If ultrasound reveals signs that suggest other conditions, such as adenomyosis, this does not exclude a diagnosis of concurrent endometriosis.
3. MRI
- a) Do not use MRI as a primary diagnostic tool for endometriosis.
 - b) Pelvic MRI is best employed within secondary care to catalogue suspected deep endometriosis, which may also involve other pelvic organs.
 - c) If MRI reveals signs that suggest other conditions, such as adenomyosis, this does not exclude a diagnosis of concurrent endometriosis.

Managing and treating endometriosis in primary health care

1. Dysmenorrhea may be improved by the use of non-steroidal anti-inflammatory drugs (NSAIDs). Regular use of controlled drugs, such as opioids, is not appropriate as they carry significant risks, including the worsening of symptoms.
2. Encourage non-pharmacological pain management strategies such as lifestyle changes (eg, diet, exercise and sleep), transcutaneous electrical nerve stimulation (TENS), pain psychology and specialist women's health physiotherapy.
3. Hormonal treatment should be the first line of treatment unless the patient is wishing to conceive. This can be in addition to using analgesics but particularly for those who fail to respond to analgesic therapy alone.
4. Inform patients with suspected endometriosis that hormonal treatment can be effective in controlling symptoms, but it may not control disease progression.
5. For patients with a high suspicion or confirmed diagnosis of endometriosis, progestin-dominant therapy may offer the best chance of halting disease progression and symptom control. See Appendix 1.
6. Gonadotrophin-releasing hormone treatment should be reserved for secondary care management.

⁴ See appendix 2 for staging classification of endometriosis.

Managing and treating endometriosis in secondary and tertiary health care

1. Refer patients to a secondary care gynaecological service if they have uncontrolled symptoms that have not responded to primary health care management.
2. Surgical management
 - a) Perform all surgery laparoscopically unless there are contraindications.
 - b) Do not use laparoscopy for diagnosing endometriosis alone.
 - c) Offer laparoscopy for the purpose of disease excision where medical management has failed.
 - d) Perform laparoscopy in accordance with Scopes of Clinical Practice set out in *Guidelines for performing endoscopic procedures*.⁵
 - e) Special care, expertise and knowledge of the best techniques are required by surgeons who undertake removal of ovarian endometriomas, particularly when fertility preservation is paramount.
 - f) Refer patients with suspected deep endometriosis to a gynaecologist with special surgical expertise in managing such disease, supported by an MDT. For patients with deep endometriosis undergoing laparoscopic surgery, the surgeon should complete an Enzian⁶ score chart at the time of surgery to characterise the extent of the disease.
 - g) If a laparoscopy is performed and endometriosis is not confirmed, offer further pain assessment and management. Refer patients back to their primary health care provider with an appropriate management plan to control symptoms. If symptoms persist, offer further specialist assessment.
 - h) Clinicians considering a third or more treatment laparoscopy on a patient should seek the opinion of an MDM⁷.
 - i) Take detailed operating notes on those undergoing laparoscopic surgery that outline the site and extent of disease and excision achieved as well as, where possible, photographic evidence.
3. Hysterectomy in combination with surgical management

⁵ See [https://ranzocg.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical%20-%20Training/Guidelines-for-performing-gynaecological-endoscopic-procedures-\(C-Trg-2\).pdf?ext=.pdf](https://ranzocg.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical%20-%20Training/Guidelines-for-performing-gynaecological-endoscopic-procedures-(C-Trg-2).pdf?ext=.pdf)

⁶ Enzian is a tool developed for the classification of deep infiltrating endometriosis

⁷ Multidisciplinary meetings (MDMs) are deliberate, regular meetings where health professionals with expertise in different specialties discuss and recommend options for patient's treatment and care.

- a) Be aware that hysterectomy is not a cure for endometriosis.
 - b) If hysterectomy is indicated (e.g. if the patient has adenomyosis or heavy menstrual bleeding that has not responded to other treatments), excise all visible endometriotic lesions at the time of the hysterectomy.
 - c) Perform hysterectomy (with or without oophorectomy⁸) laparoscopically where possible when combined with surgical treatment of endometriosis, unless there are contraindications.
4. Surgical management if subfertility is an issue
- a) Consider excision plus adhesiolysis for endometriosis in consultation with a fertility specialist.
 - b) In the presence of stage III or IV disease, it may be appropriate to leave some disease behind, if fertility may be compromised.

⁸ Note, bilateral oophorectomy at the time of hysterectomy should be avoided, where possible, as there is a significant increase in all-cause mortality, particularly cardiovascular morbidity.

Appendix 1:

Recommendation for exogenous hormone therapy for patients with suspected endometriosis

Progesterone only pills (POPs) and progestins as first-line hormonal management of presumed or proven endometriosis

Most published guidelines recommend using a combined oral contraceptive pill (COCP) as first line hormonal treatment for endometriosis.¹⁻⁵ The evidence, however, for COCPs being the most appropriate class of hormonal medication for symptom control and controlling disease progression is not convincing and some authors are questioning the paradigm.⁶ There is only one published randomised placebo-controlled trial investigating COCP effectiveness in treating pelvic pain and dysmenorrhoea in patients with endometriosis.⁷ A 50 percent reduction in visual analogue scale pain score was reported but no effect on non-menstrual pelvic pain or dyspareunia. In another non-controlled comparative study about 50 percent of patients with dysmenorrhoea had only partial or no improvement in pain and there was no predictive value in a patient's response to therapy as to whether they were subsequently found to have histologically proven endometriosis or not.⁸

Several randomised placebo-controlled trials indicate oral progestins such as medroxyprogesterone,^{9, 10} dienogest,¹¹ dydrogesterone,¹² and norethisterone¹³ are effective in reducing endometriosis-related pelvic pain. Other randomised studies have resulted in dienogest having become the most favoured first-line progestin for treating endometriosis within developed countries.^{14, 15, 16} An observational study has also shown a decrease in endometriosis implant size at second look laparoscopy in patients treated with medroxyprogesterone acetate.¹⁷

No regulatory authority has approved the use of COCPs for the treatment of endometriosis. Several of the progestin agents, however, have been approved. The use of progesterone-only therapy should be balanced with symptom control, contraceptive efficacy and adverse effects of treatment. Common adverse effects include menstrual irregularity, mood changes and the development or deterioration of an acneiform rash.

Patients unable to tolerate progestin therapy alone, or those for whom symptoms are less debilitating, may be better suited to a trial of combined oral contraceptive pill (COCP) plus or minus complementary progestin therapy.

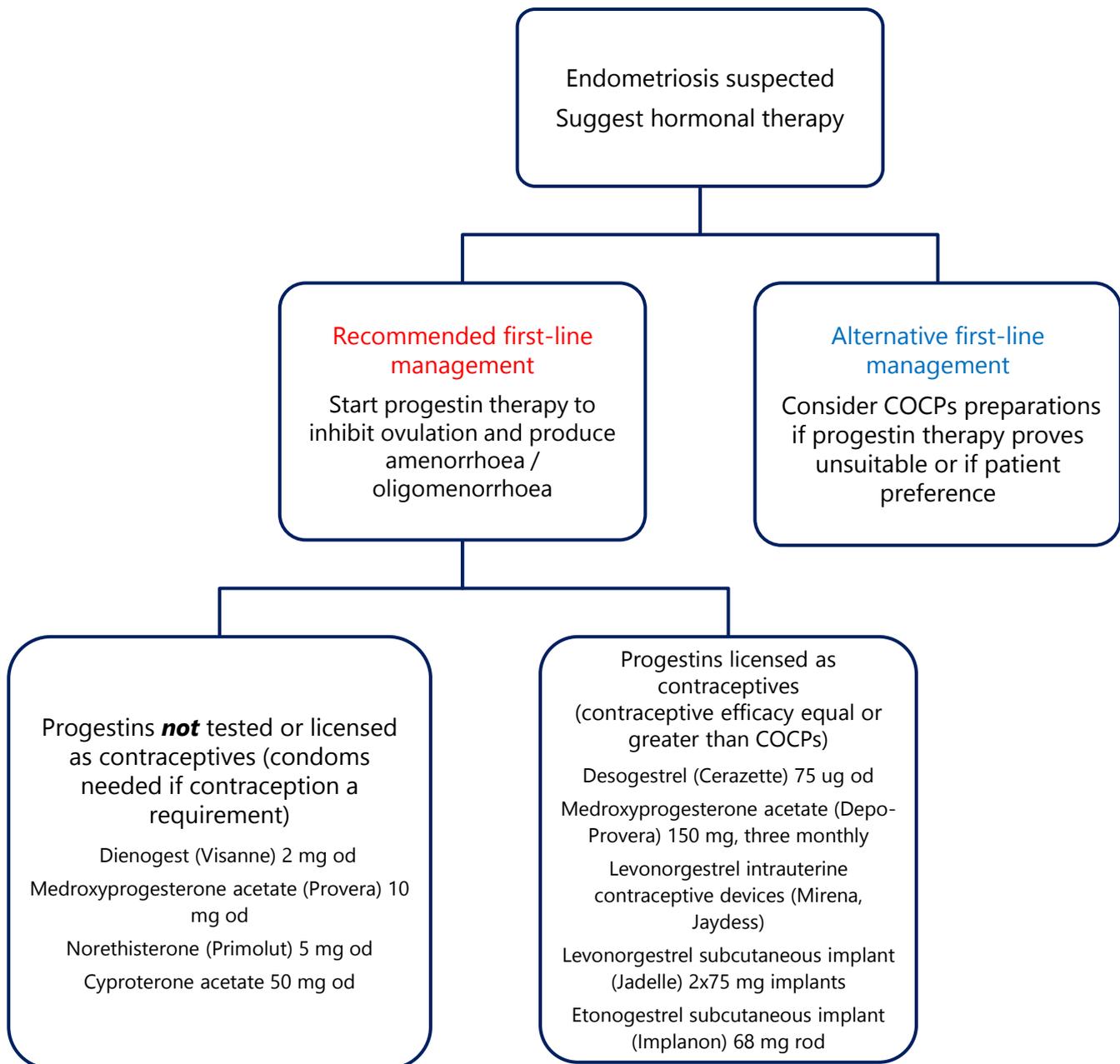
If, after six months, exogenous hormonal therapy of any type fails to control symptoms and improve quality of life, it is recommended that referral be made to secondary care services.

Practical points for using progestins

- Start on the first day of menses.
- Preferably prescribe at a sufficient dose to produce anovulation and therefore amenorrhoea/oligomenorrhoea.
- Consider bone density: Some oral progestin therapies, such as norethisterone, have been found to protect bone mineral density¹⁸. Long-term medroxyprogesterone acetate (Depo-Provera) and oral dienogest (Visanne) may be associated with a reversible reduction of bone mineral density in adolescents that should be monitored in patients under the age of 20 years.^{19, 20} It is reasonable to perform a bone density study in those continuing progestin therapy for two years or more, and repeating thereafter depending upon the study recommendation. Most patients, following the use of medroxyprogesterone acetate, show a spontaneous recovery in bone mineral density to base levels over the following two to three years.²¹ Loss of bone mineral density can be prevented by the concurrent use of 'add back' oestrogen therapy in the form of 1 mg of oestradiol valerate (Progynova)^{22, 23, 24}.
- If troublesome bleeding occurs, suggested strategies include:
 - a) increasing the progestin dose
 - b) five days of low-dose oestrogen therapy (eg, Progynova 1 mg od).
 - c) Doxycycline 100 mg i od for five days.
- If hormone therapy is ineffective then refer to secondary care.

Summary of medication options

(as at November 2019)



Preparations

	Subsidised	Partially subsidised	Not subsidised
Progesterone only contraceptives (POPs) and other progestins	<ul style="list-style-type: none"> Norethisterone (Primolut) 5 mg Medroxyprogesterone acetate (Provera) 2.5, 5mg, 10 mg, 100 mg Cyproterone acetate (Siterone) 50 mg Norethisterone (Noriday) 35 mcg 	<ul style="list-style-type: none"> Levonorgestrel (Microlut) 30 mcg 	<ul style="list-style-type: none"> Desogestrel (Cerazette) 75 mcg <i>Dienogest (Visanne) 2 mg</i>
Progesterone injections	<ul style="list-style-type: none"> Medroxyprogesterone acetate (Depo-Provera) 150 mg/ml 		
Intrauterine devices (delivery systems)	<ul style="list-style-type: none"> Levonorgestrel (Mirena) 52 mg (mean release 15 ug/24 hrs) Levonorgestrel (Jaydess) 13.5 mg (mean release 6 ug/24 hrs) 		
Implantable devices	<ul style="list-style-type: none"> Levonorgestrel (Jadelle) 2x75 mg rods 		<ul style="list-style-type: none"> <i>Etonogestrel (1x68 mg rod)</i>
Combined oral contraceptive pills (COCPs)	<ul style="list-style-type: none"> Numerous preparations with subsidy attached 		
Gonadotrophin releasing hormone agonists (GnRH-agonist)	<ul style="list-style-type: none"> Goserelin (Zoladex) 3.6mg, 10.8mg Leuprorelin (Lucrin) 3.75 mg, 11.25 mg (1 and 3 months) 		

Note: **red** denotes anovulatory dose; *italics* denotes not currently registered in New Zealand as of December 2019

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Appendix 2: General staging of endometriosis

Grade / Stage		Appearance
I	Mild	Small patches or surface lesions scattered around the pelvic cavity.
II or III	Moderate	Larger widespread disease starting to infiltrate tissue and often found on the ovaries, uterosacral ligaments and Pouch of Douglas. Sometimes there is also significant scarring and adhesions.
IV	Severe	Affects most of the pelvic organs, often with distortion of the anatomy and adhesions.

Note: the stage of the endometriosis does not necessarily reflect the level of pain experienced, risk of infertility or symptoms present.