a healthier world through
sonographer expertise

ASA Endometriosis Guidelines

Level 2, 93–95 Queen Street
Melbourne 3000 VICTORIA

T +61 3 9552 0000
F +61 3 9558 1399

www.sonographers.org
2026

Contents

Key terms

Term	Definition
Deep endometriosis (DE)	Endometriosis involving nodules infiltrating beneath the peritoneal surface, often affecting the uterosacral ligaments (USL), torus uterinus, vaginal wall, bowel, bladder, or pelvic sidewalls.[1,2]
Endometriosis-focused ultrasound	A targeted pelvic ultrasound examination using a structured, compartment-based approach to assess for sonographically visible features of endometriosis, dynamic findings, and relevant pelvic pathology.
#Enzian	#Enzian is a classification system used to map DE by describing the location, size, depth, and organ involvement of lesions in a way that is meaningful for both ultrasound assessment and surgical planning.[3]
IDEA	International Deep Endometriosis Analysis group. This multidisciplinary panel of experts developed a standardised, four-step, ultrasound-based protocol for diagnosing DE.[4]
IOTA	International Ovarian Tumour Analysis group. IOTA is an international, multidisciplinary collaboration that has developed standardised, evidence-based ultrasound terminology and diagnostic criteria for the assessment and characterisation of ovarian masses.
Level 1 assessment	A routine, within scope, pelvic ultrasound plus targeted endometriosis additions, aimed at identifying clearly visible disease, documenting key dynamic findings, and escalating complex or indeterminate findings.
Level 2 assessment	An advanced, specialist endometriosis ultrasound assessment involving comprehensive compartment-based mapping, nuanced dynamic interpretation, and advanced reporting, performed by practitioners with additional training, experience, and clinical governance support.
MUSA	Morphological Uterus Sonographic Assessment. MUSA is a consensus-based terminology and reporting system developed to standardise the ultrasound description of uterine morphology, particularly features of adenomyosis and myometrial pathology.
Pouch of Douglas (POD)	The rectouterine pouch, a peritoneal space between the uterus and rectum, commonly affected in posterior compartment endometriosis.
Sliding sign	A dynamic ultrasound manoeuvre assessing the mobility between pelvic organs to evaluate adhesions or obliteration, most commonly applied to the POD.[4–6]

Background

Health system challenge

Endometriosis is a chronic inflammatory condition characterised by the presence of endometrial-like tissue outside the uterus, most commonly involving the ovaries, uterosacral ligaments (USLs), bowel, bladder, and pelvic peritoneum.[7–15] It can affect individuals across the lifespan, from menarche through to post-menopausal life, and affects an estimated 10–14% of individuals in Australia and Aotearoa New Zealand.[7–10,16–19]

Clinical presentation is highly variable and symptom burden does not reliably correlate with disease extent.[14,20] As a result, diagnostic delays of 4–12 years are common, contributing to progressive pain, infertility, and reduced quality of life, and increased healthcare utilisation.[9,11,20,21] These delays reflect not only the complexity of the disease, but also variability in access to timely assessment, specialist services, and coordinated care pathways across health systems.

Pelvic ultrasound plays a central role in the assessment of suspected endometriosis and in guiding further management, particularly for ovarian and deep disease. However, variation in sonographer training, available scan time, access to specialist expertise, and referral pathways contributes to inconsistent detection, documentation, and reporting, with downstream impacts on clinical decision-making and equity of care.[8,22–24]

Purpose and outcomes

This guideline defines minimum practice standards for endometriosis-focused ultrasound across Australasia, aiming to improve consistency, safety, and patient outcomes through a structured approach to scanning, documentation, and referral. It is written primarily for sonographers, and supports reporting clinicians and referrers by promoting clear, reproducible descriptions that inform care planning and referral decisions.

The guideline is implemented across two practice tiers. Within routine services, it supports a Level 1 assessment centred on systematic pelvic evaluation, documentation of key sonographic and dynamic findings, and identification of escalation triggers and referral urgency. In settings where practitioners have additional training, adequate scan time, mentoring, and clinical governance, it supports Level 2 assessment. This involves comprehensive compartment-based mapping and advanced reporting to inform surgical planning and multidisciplinary care.

To support a “right scan, first time” approach, the guideline recommends early triage to Level 2 assessment when endometriosis is the primary clinical question, symptoms and history indicate increased likelihood of disease, and the service is accessible. It also defines clear escalation triggers from Level 1 to Level 2, with the aim of minimising repeat transvaginal (TVUS) examinations, diagnostic delay, and out-of-pocket costs for patients.

Guideline development

The development of this guideline was led by a multidisciplinary group including sonographers, radiologists, gynaecologists, methodologists, and health system representatives. This approach ensured the recommendations reflect contemporary imaging practice, clinical expertise, health system priorities, and lived experience. Recommendations are based on peer-reviewed evidence (2015–2026), systematic reviews, and expert consensus where evidence is limited.

Funding

This guideline was funded by the Australasian Sonographers Association.

Review

The guideline will be reviewed every 3 years or earlier if significant new evidence emerges.

Consideration of benefits, harms, and cost

Expanding access to endometriosis-focused ultrasound has the potential to improve identification of sonographically visible disease and enhance the usefulness of imaging for care planning when assessments are appropriately structured. Implementation should be undertaken thoughtfully to ensure that imaging complexity, appointment duration, and practitioner expertise are aligned.

Important patient-level harms must be acknowledged. Repeating imaging, particularly when driven by variable access to Level 2 services, can contribute to diagnostic delay, increase out-of-pocket costs, and impose burden associated with multiple TVUS. These impacts are disproportionately felt by individuals in rural and remote regions, those with limited financial means, and communities already experiencing barriers to specialist care.

Resource considerations include longer appointment times for advanced assessments, investment in education, mentoring, and clinical governance, and the availability of referral pathways to specialist or tertiary imaging services. Workforce wellbeing must also be considered, as prolonged and repetitive transvaginal scanning increases physical load and may elevate the risk of work-related musculoskeletal disorders (WRMSD) if scheduling and workload are not managed appropriately.

Summary of recommendations

Key recommendations and actionable steps for endometriosis-focused ultrasound practice are summarised in Table 1. Expanded evidence map underpinning Table 1 recommendations can be found in Appendix 1.

Table 1: Summary of recommendations.

Legend						
Recommendation type: Evidence based recommendation refers to statements primarily supported by published evidence. Consensus practice point refers to statements primarily based on expert consensus, feasibility, governance, and patient safety where direct comparative evidence is limited. **Certainty of evidence**: High, Moderate, Low reflect confidence that the evidence estimate is correct. **Strength**: Strong means most services should implement this. Conditional means implementation depends on local expertise, resources, and patient context.						
Recommendation	**Applies to**	**Recommendation type**	**Certainty of evidence**	**Strength**	**Brief rationale**	**Key evidence sources**
Match appointment time to assessment tier and complexity	Level 1 and Level 2	Consensus practice point	High	Strong	Feasibility and safety require adequate time for structured assessment, particularly for Level 2 mapping.	International consensus to enhance routine pelvic ultrasound for endometriosis using targeted manoeuvres. Peer-reviewed implementation evidence for service capability, plus professional guidance on workload, WRMSD, and medicolegal risk.
Use standardised terminology and structured reporting frameworks	Level 1 and Level 2	Evidence based recommendation	Moderate	Strong	Standardised language and structure improve consistency, communication, and clinical utility of reports, with tiered depth	International consensus supports standard terms, definitions, and measurements to improve consistency and communication. Established consensus frameworks support standardised descriptors enabling structured reporting and clearer triage pathways.

Include dynamic assessment and mobility markers *Level 1 – Using dynamic assessment, document uterine and adnexal mobility and note uterine, ovarian position and any obvious tethering patterns (for example fixed retroversion, adherent ovaries, "kissing ovaries" if seen). Do not interpret mobility in isolation to determine extent.* *Level 2 – Document dynamic mobility and separability (all compartments and key interfaces) and interpret restriction in the context of adhesions and compartment findings.*	Level 1 Level 2	Evidence based recommendation	Moderate	Strong	Assessing and documenting organ mobility helps identify adhesions and "fixed" anatomy suggestive of deep disease, supports triage and escalation, and improves the consistency and clinical usefulness of endometriosis ultrasound reporting. Mobility findings are nonspecific and technique dependent and should be interpreted in conjunction with lesion assessment and other direct/indirect signs, rather than as standalone diagnostic markers.	International consensus supports targeted dynamic assessment, including evaluation of uterine and adnexal relationships and mobility, to improve detection and triage for endometriosis. Professional society guidance endorses structured assessment, tiered expertise, and documentation of mobility findings to support pathways and escalation decisions.
Describe lesions using a structured, compartment-based approach *Level 1 – Perform a generalised assessment of the middle and posterior compartments for DE nodules.*	Level 1	Evidence based recommendation	Moderate	Strong	A tiered model of expertise and structured assessment improves the chances of detecting clinically significant disease without over-extending time or capability in general services and is useful for onward referral.	International consensus supports compartment-based assessment and standard lesion descriptors.
Level 2 – Describe and document all lesions using a structured compartment-based approach for the anterior, middle, posterior compartments, and lateral pelvic sidewall.	Level 2				Comprehensive mapping and documentation of lesions across anterior, middle, posterior compartments, and lateral pelvic sidewall is necessary when the purpose of the scan is advanced disease mapping, and surgical planning support.	

Escalate complex, indeterminate, or discordant cases to specialist endometriosis imaging services	Level 1 to Level 2 pathway	Consensus practice point	Moderate	Strong	Operator dependence and variable capability mean escalation improves safety and reduces false reassurance in complex cases.	International consensus supports triage and further imaging where indicated, acknowledging operator dependence and variability in service capability.
Superficial peritoneal endometriosis may be described if seen, but interpret with caution and is not used to exclude disease	Level 2	Evidence based recommendation	Low	Conditional	Limited sonographic visibility and lower quality evidence, absence of signs does not rule out disease.	Reviews and consensus material describing limitations of superficial disease assessment on ultrasound
Embed equity, access, and culturally safe practice in implementation, including pathways that reduce diagnostic delay and variability	Level 1 and 2	Consensus practice point	Low	Strong	Implementation should reduce diagnostic delay and variability and align with local pathways and community needs.	Peer-reviewed evidence showing persistent diagnostic delay, health system contributors to delay, and disparities in diagnostic pathways linked to social vulnerability, supporting the need to reduce variability and improve access

Implementation of these guidelines

Common barriers to implementing these guidelines, alongside practical enablers to support uptake across diverse practice settings are outlined in Table 2.

Table 2: Barriers and enablers to implementation of the guideline.

Barriers to implementation		Enablers to implementation	
Workforce shortages	Limited number of sonographers trained in advanced endometriosis imaging.	**Education supported by real-time guidance**	Blended education models that combine online learning with supervised, hands-on scanning, mentored feedback, and case-based review. Access to workshops, supervised scanning opportunities, peer review, and feedback from experienced practitioners helps consolidate skills and ensures safe, accurate examinations.
Time constraints	Comprehensive TVUS often requires longer appointments, which can be difficult in high volume services.	**Standardised protocols**	Coordinated education, mentoring, and governance frameworks that support upskilling of both sonographers and reporting clinicians in endometriosis-focused imaging, including use of standardised reporting systems and agreed escalation pathways.
Awareness	Inconsistent knowledge among clinicians involved in endometriosis imaging, including limited familiarity with ultrasound-based diagnostic frameworks and variable expertise in radiology reporting of endometriosis. In many settings, particularly outside specialist centres, radiology reporting of endometriosis is performed by clinicians without formal training or high case volumes in this area. As a result, radiologists may rely heavily on the sonographer's assessment and documentation, increasing the importance of shared expertise, structured reporting, and aligned training across disciplines.	**Australian National Action Plan alignment**	Align the guideline with the Australian National Action Plan.

Understanding endometriosis: Risk, presentation, and management

Risk factors

Endometriosis is a complex, multifactorial condition influenced by a combination of genetic, hormonal, immunological, and environmental factors.[9] A range of recognised risk factors have been identified that may increase the likelihood of developing the disease, see Appendix 2: Risk factors of endometriosis.[9,21]

Symptoms

Endometriosis presents with a wide spectrum of symptoms, and some individuals may be asymptomatic.[9,25,26] Symptoms associated with endometriosis are listed in Appendix 3: Symptoms associated with endometriosis. Endometriosis should be considered in individuals presenting with these symptoms, regardless of age or reproductive stage, including adolescents and post-menopausal individuals, even when symptoms are atypical or mild.

Treatment approaches to endometriosis

Management of endometriosis should be tailored to the individual's symptoms, reproductive goals, and personal preferences.[27] Treatment typically involves a combination of medical and surgical options and is often managed by a multidisciplinary specialist team.[9,24] Sonographers play an important role in assessment and diagnosis; however, they should not provide management or treatment advice, and care should always be guided by the treating clinician. In some cases, patients may not pursue disease-directed medical or surgical treatment and are managed primarily through pain control, often in collaboration with a chronic pain specialist and/or pelvic floor physiotherapist.

Types of endometriosis

Endometriosis can be classified into different types (noted in Table 3), based on lesion location and depth of infiltration. These may occur independently or concurrently, and accurate classification is essential for guiding diagnosis, treatment planning, and surgical approach.[7]

Table 3: Subtypes of endometriosis

Type	Description
Superficial / peritoneal disease	Endometrium-like lesions involving the surface of the peritoneum, typically affecting pelvic and abdominal viscera.[8,10]
Ovarian endometriotic cyst / endometriomas	Endometrium-like tissue in the form of ovarian cysts, commonly referred to as "chocolate cysts" due to their appearance.[8,10,29]
Deep endometriosis (DE)	DE is the most clinically significant subtype, often associated with severe symptoms and complex surgical management.[1,2] It involves endometrial-like tissue infiltrating on or beneath the peritoneum, commonly affecting the USLs, torus uterinus, vaginal wall, bladder, bowel, pelvic wall, and retroperitoneal spaces.[1,5,7,28]
Extra-pelvic endometriosis	Endometriosis-like tissue located outside the pelvic cavity, including the appendix, diaphragm, abdominal wall, and thoracic cavity.[2,10,13,30]
Acquired endometriosis	Acquired (iatrogenic) endometriosis may occur following surgical procedures. These cases are rare, and the most recognised example is abdominal wall endometriosis, typically arising in or adjacent to surgical scars, most commonly following caesarean section.[31]
Adhesions (peritoneal)	Fibrous bands of scar tissue that can form between pelvic or abdominal organs, including the bowel and peritoneum, ranging from thin and filmy to dense and restrictive, and may develop as a consequence of chronic inflammation.[29]

Assessment of endometriosis

Laparoscopic confirmation remains important in selected cases, however contemporary guidelines recognise endometriosis as a clinical diagnosis that may be supported, but not excluded, by imaging findings and symptom profile.[2,9,10,12–14,24,32–34] In line with the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Australian Living Evidence Guideline,[33] imaging findings should be interpreted in the context of clinical assessment.

Role of ultrasound

TVUS is the recommended first-line imaging modality for suspected endometriosis.[5,24,29] It enables assessment of pelvic anatomy, organ mobility, identification of sonographically visible disease, and estimation of disease extent, supporting clinical decision-making and surgical planning.[5,6,8,9,24] With informed consent, TVUS remains clinically appropriate for patients for whom it is anatomically relevant, including those who are not sexually active, when the anticipated diagnostic benefit outweighs potential discomfort.[34]

While high-quality TVUS can identify many manifestations of endometriosis, a normal or negative examination does not exclude disease. Superficial peritoneal disease, subtle lesions, and pathology beyond the sonographic field of view may not be detected. Imaging findings should therefore be interpreted in conjunction with symptom profile and clinical assessment.

Transabdominal ultrasound (TAUS) may be used as an adjunct to TVUS in selected circumstances, such as renal tract assessment or evaluation of high-lying ovaries, but is not sufficient as a standalone examination for endometriosis assessment.[5]

Magnetic Resonance Imaging (MRI) may provide complementary information in selected cases, particularly when ultrasound findings are inconclusive or when additional anatomical detail is required for surgical planning.[8,9] Funding and access criteria for MRI vary by jurisdiction and should be considered when selecting second-line investigations.[9,35]

Clinical pathway

To reduce diagnostic delays, repeated TVUS examinations, and unnecessary costs to patients, this guideline recommends a "right scan, first time" approach. When endometriosis is clinically suspected, based on symptoms, history, examination findings, or prior imaging, patients should be directed, wherever accessible, to a Level 2 endometriosis-focused ultrasound as the preferred first-line examination, see Appendix 4 Escalation to Level 2 assessment.

Level 1 assessment remains valuable in settings where Level 2 services are not available; however, it should not delay definitive assessment when clinical suspicion is high. Clear triage pathways should ensure timely escalation to Level 2 or specialist imaging services when findings are complex, indeterminate, discordant with symptoms, or outside routine scope.

Level 1 endometriosis-focused ultrasound is not a screening test and must not be interpreted or used as a tool to exclude endometriosis. Its purpose is to strengthen the minimum standard of routine pelvic ultrasound through targeted observations, basic dynamic assessment, and clearly defined escalation triggers.

Level 1 is appropriate only when performed within routine scope and appointment time, and when Level 2 access is limited. It is designed to identify clearly visible disease, document mobility findings, and recognise when the clinical picture or sonographic features exceed routine capability. In individuals with significant symptoms, high pre-test probability, or complex presentations, Level 1 should not be used as a substitute for comprehensive evaluation. Instead, referral to a Level 2 specialist examination should occur early to avoid diagnostic delay, repeat TVUS, and unnecessary cost or burden to the patient.

Preparation

- Bowel preparation is not routinely required for endometriosis ultrasound.[5,26,31] It is not recommended for Level 1 assessments but may be used selectively for Level 2 assessments, particularly when bowel or posterior compartment DE is suspected. Use should be individualised, clearly explained, and balanced against patient comfort.
- Consent, communication, and professional conduct should align with relevant national and local ultrasound practice standards and organisational policies.[34,36,37]
- A chaperone should be offered in accordance with professional and institutional policies, to support patient comfort and safety and to safeguard both the patient and the sonographer.[34]
- Before commencing, explain the purpose of the examination, including the need for organ manipulation during dynamic assessment which may be uncomfortable, and confirm informed consent.[6]
- Ask the patient to empty their bladder before the transvaginal component, as an empty or near-empty bladder optimises visualisation of the pelvis and improves patient comfort.
- Position the patient with hips and knees flexed, legs separated, and the perineum aligned with the end of the examination couch.[33] This can be facilitated using a wedge cushion, stirrups, or an adjustable couch bottom section.

History

Clinical history is essential for guiding an effective endometriosis ultrasound examination.[4,9] Sonographers should gather information that helps contextualise symptoms and guide the focus of the examination. Appendix 5: Clinical history outlines suggested clinical history relevant to endometriosis.

Endometriosis-focused ultrasound: Minimum practice standard

Endometriosis-focused ultrasound uses a structured, compartment-based approach informed by the IDEA framework[4] and adapted for Australasian practice. Not all sonographers or services are expected to assess all compartments. This guideline defines minimum core components suitable for initial assessment, and advanced elements for practitioners with additional training, see Table 4 for more detail.

A routine gynaecological ultrasound primarily assesses uterine and ovarian morphology, adnexa, and pelvic free fluid. A Level 1 endometriosis-focused assessment builds on a routine pelvic ultrasound by adding targeted observations and manoeuvres that increase detection of endometriosis and inform triage, including basic posterior compartment screening and dynamic assessment. Level 2 extends this to systematic multi-compartment mapping and detailed documentation to support specialist referral and management planning.

Level 1 - Endometriosis-focused assessment, routine pelvic ultrasound plus targeted endometriosis additions

(Minimum practice standard within routine Australasian ultrasound services)

Level 1 is an initial diagnostic pelvic ultrasound performed within routine scope and appointment time. It is guided by symptoms and relevant clinical history. The aim is to identify clearly visible disease, document key dynamic findings, and escalate complex, suspicious, or indeterminate findings.

The sonographer can reasonably be expected to:

Clinical context

- Obtain a targeted clinical history relevant to suspected endometriosis to inform scan focus.
- Recognise symptom patterns that suggest posterior compartment involvement or the need for escalation.

Core imaging assessment

- Routine pelvic ultrasound includes uterus, ovaries, adnexa, endometrium, cul-de-sac, and any masses as per local pelvic ultrasound standards.

Level 1 adds (minimum endometriosis focused components)

- Targeted posterior compartment screen (including POD, USL, and bowel).
- Basic dynamic manoeuvres.

Identify and document:

- Uterine position (fixed anteverted retroflexed is associated with posterior compartment DE).
- Features of adenomyosis using MUSA terminology.
- Ovarian endometriomas using IOTA criteria.[38]
- Kissing ovaries.
- Adnexal pathology (hydrosalpinx, haematosalpinx).
- Posterior compartment (POD, USLs, and bowel).
- Obvious DE lesions when clearly visualised.

Dynamic assessment (within limits)

- Perform and document the POD sliding sign from right to left (positive, negative, or indeterminate).
- Assess uterine mobility.
- Avoid over-interpretation of ovarian mobility in isolation.

Reporting

- Use standardised language and recognised frameworks where relevant.
- Report:
  - What structures were assessed,
  - What could not be adequately assessed (with reasons),
  - Clearly visualised abnormalities only.

Escalation

- Where findings are complex, indeterminate, discordant with symptoms, or exceed individual or service capability, the examination must be documented within scope and escalated to the reporting clinician to determine need for referral for specialist imaging or multidisciplinary assessment, see Appendix 4.

Limitations of Level 1 capability

At Level 1, assessment is limited to clearly visualised findings within routine scope. The following elements are outside Level 1 capability:

- Perform comprehensive compartmental-based disease mapping.
- Reliably identify subtle DE or superficial peritoneal disease.
- Accurately localise or characterise bowel lesions.
- Assess ureteric involvement beyond basic screening for obvious abnormality.
- Assign surgical stage, predict operative complexity, or independently stage disease.
- Diagnose endometriosis in the absence of supportive sonographic findings.

Level 2 - Advanced endometriosis ultrasound assessment

(Extended / advanced scope)

Level 2 assessment is a specialist diagnostic role, performed by practitioners with advanced training and experience, and is mostly delivered within specialist or tertiary endometriosis imaging services, but can be performed by sonographers who possess this higher-level skill set. Level 2 assessments require sufficient time for comprehensive evaluation and mapping. ASA advocates for appointment durations that reflect case complexity and protect sonographer health.

A Level 2 assessment can reasonably be expected to include all the aspects of a Level 1 assessment and the following:

Comprehensive assessment

- Perform systematic, compartment-based mapping using structured frameworks.
- Assess, document, and characterise disease involvement across:
  - The posterior compartment, including USLs, torus uterinus, vaginal wall, and bowel. Including lesion size and extent, bowel wall layer, and distance between the lower border of the most caudal lesion and the anal verge if required,
  - The anterior compartment, including bladder and ureters, and secondary hydronephrosis when clinically suspected, including lesion size and extent, bladder wall disruption, ureteric dilatation, and distance from ureteric stricture to the distal ureteric orifice if required,
- Evaluate superficial peritoneal disease where technically feasible and clinically relevant.

Advanced dynamic techniques

- Perform nuanced interpretation of:
  - POD sliding sign, including partial or restricted patterns and level of obliteration,
  - Uterovesical sliding sign,
  - Compartment-specific organ mobility and adhesion patterns.
- Integrate dynamic findings with fixed anatomical abnormalities.

Interpretation and clinical integration

- Correlate imaging findings with clinical symptoms and history.
- Provide imaging information relevant to:
  - Surgical risk stratification,
  - Multidisciplinary care planning,
  - Referral prioritisation.
- Communicate findings effectively within multidisciplinary teams.

Reporting

- Deliver structured, reproducible reports using advanced frameworks.
- Clearly describe disease distribution, extent, and relationships to adjacent organs.

Table 4: Scope of endometriosis ultrasound assessment by practice level

Regions examined at Level 1 and Level 2		
Region or assessment component	**Level 1 – General assessment**	**Level 2- Advanced specialist assessment**
Uterus, structural assessment, mobility	✓	✓
Adenomyosis features (MUSA terminology)	✓	✓
Adnexa	✓	✓
Ovaries, position and morphology	✓	✓
Ovarian endometriomas using IOTA criteria	✓	✓
General screening of the posterior compartment (POD, USLs, bowel) to identify clearly visible abnormalities or suspicious features suggestive of DE	✓	✓
POD sliding sign, basic assessment (positive, negative, or indeterminate)	✓	✓
POD sliding sign, nuanced interpretation	x	✓
Posterior compartment mapping (USLs, torus uterinus, vaginal wall) using structured frameworks (e.g. IDEA, #Enzian)	x	✓
Bowel mapping, including wall layer involvement and nodule extent	x	✓
Anterior compartment assessment (bladder, ureters, uterovesical sliding sign)	x	✓
Pelvic sidewalls	x	✓
Superficial peritoneal disease (where technically feasible and clinically relevant)	x	✓

Legend: A ✓ indicates required components. An x indicates components that are not required at Level 1, as they require an advanced skill set.

Reporting

Accurate, consistent reporting supports clinical management, surgical planning, and multidisciplinary care. Evidence supports standardised descriptors and structured reporting; staging systems vary by pathway and governance.

Recommended reporting frameworks:

- MUSA for adenomyosis and uterine features.
- IOTA for ovarian cyst morphology, internal content, vascularity, and solid components.[4,6]
- IDEA for mapping DE and reporting lesion size and location.
- #Enzian for compartment-based classification of disease extent.[3]

Reports should document:

- Structures assessed and any limitations.[39]
- Anatomical site(s) involved.
- Lesion size (three dimensions), shape, and depth of infiltration.
- Laterality and lesion number (unifocal or multifocal).
- Organ mobility and adhesions.
- POD status, including obliteration if present.
- Site-specific tenderness.

- Relationships to adjacent structures (e.g. ureters, anal verge), where relevant.
- Key sonographic features (e.g. echogenicity, vascularity).
- Indirect markers (e.g. kissing ovaries).

Findings should be presented in a way that supports correlation with symptoms and relevant clinical priorities, such as fertility assessment or surgical planning.

Summary of core minimum images and cine loops

The following minimum image set (Table 5 and 6) represents components that should be achievable in most Australasian ultrasound settings, additional views may be included at the discretion of the service. All lesions should be measured in three orthogonal planes and with and without Doppler.

Elements listed under Level 2 are not expected during Level 1 assessments and should only be undertaken where appropriate training, time, and clinical governance are in place. Level 1 comprises a routine pelvic ultrasound dataset plus endometriosis-focused additions.

Table 5: Recommended core images.

Level 1	
Uterus	Longitudinal midline uterus, document uterine version, measure uterine length
	Transverse uterus at fundus, mid body, cervix
	Adenomyosis signs, capture at least one representative still for any present direct sign and indirect sign
	Record a short colour or power Doppler clip of vascularity of identified pathology
Endometrium	Thickness and uniformity
	Measure at midsagittal plane
Ovaries	Document size and position in pelvis
	Record whether low-lying and whether “kissing ovaries”
	If endometrioma present, capture contents and wall, and Doppler if a solid component
Posterior compartment	Midline sagittal POD
	Document size and position of any obvious lesions (POD, USLs, bowel)
Markers	Site- specific tenderness mapping, annotate regions eliciting concordant pain responses
Level 2	
Posterior compartment	Mapping of disease extent
	USLs, torus uterinus, vaginal wall documenting any lesions
	Rectum and rectosigmoid, document bowel wall layer disruption
	Midline sagittal POD
	Note its adhesion to any adjacent structure/s such as the uterus, ovary, bowel
Anterior compartment	Sagittal and transverse planes across the bladder trigone and base
	Both ureters assessed in sagittal view and measured (normal<6mm)
	Consider documenting ureteric jets if hydronephrosis is suspected

Superficial peritoneal (when clinically appropriate)	If visualised, inspect peritoneal pockets for lesions, clustered cysts, hyperechogenic foci, or tender spots, capture representative images
Transabdominal overview (when clinically appropriate)	A targeted TAUS may be performed when renal tract assessment is clinically indicated, such as with Mullerian duct anomalies, when hydronephrosis is suspected, or when there is concern for ureteric involvement.

White cells indicate competencies expected at Level 1 and Level 2, while green cells indicate competencies specific to Level 2.

Table 6: Recommended cine loops for both Level 1 and 2.

Level 1	Recommended 2D cine sweep
POD	POD sliding sign, dynamic cine clip showing posterior uterine/cervical/vaginal wall sliding freely over the rectum from the right to the left, or a negative sign if fixed
Ovaries	Sweep documenting ovarian position and any restriction of movement, interpret mobility cautiously and do not use in isolation.[19]
Level 2	**Recommended 2D cine sweep**
Posterior compartment	Sweep through the posterior compartment with the transducer in the posterior vaginal fornix demonstrating nuanced POD sliding sign interpretation
Anterior compartment	Sweep through the anterior compartment with the transducer in the anterior vaginal fornix demonstrating uterovesical sliding sign
Additional	Sweep of any specific pathology identified to assess organ mobility.

Summary

This guideline provides a framework for endometriosis-focused ultrasound in Australasia. By defining minimum practice standards, clarifying scope, and supporting structured reporting and escalation, it aims to improve consistency, reduce diagnostic delay, and support safe, high-quality imaging within diverse clinical settings. Ongoing education, collaboration, and workforce development are essential to improving outcomes for individuals with suspected or confirmed endometriosis.

References

1. Bindra V, Naem A, Swetha P, et al. Mapping deep endometriosis in patients with ovarian endometriomas according to the #Enzian classification: A single-center retrospective analysis. *Front Med*. 2025;12:1626445. doi:10.3389/fmed.2025.1626445
2. Duncan J, Delara R, Ranieri G, Wasson M. Management of endometriosis: A call to multidisciplinary approach. *J Osteopath Med*. 2025;125(6):305-313. doi:10.1515/jom-2024-0105
3. Keckstein J, Saridogan E, Ulrich U, et al. The #Enzian classification: A comprehensive non-invasive and surgical description system for endometriosis. *Acta Obstet Gynecol Scand*. 2021;100(7):1165-1175. doi:10.1111/aogs.14099
4. Guerriero S, Condous G, Bosch T van den, et al. Systematic approach to sonographic evaluation of the pelvis in women with suspected endometriosis, including terms, definitions and measurements: a consensus opinion from the International Deep Endometriosis Analysis (IDEA) group. *Ultrasound Obstet Gynecol*. 2016;48(3):318-332. doi:10.1002/uog.15955
5. Young S, Jha P, Chamié L, et al. Society of Radiologists in Ultrasound consensus on routine pelvic US for endometriosis. *Radiology*. 2024;311(1). doi:10.1148/radiol.232191
6. Leonardi M, Condous G. How to perform an ultrasound to diagnose endometriosis. *Australas J Ultrasound Med*. 2018;21(2):61-69. doi:10.1002/ajum.12093
7. As-Sanie S, Mackenzie S, Morrison L, et al. Endometriosis. *JAMA*. Published online May 2025. doi:10.1001/jama.2025.2975
8. Avery J, Deslandes A, Freger S, et al. Noninvasive diagnostic imaging for endometriosis part 1: A systematic review of recent developments in ultrasound, combination imaging, and artificial intelligence. *Fertil Steril*. 2024;121(2):164-188. doi:10.1016/j.fertnstert.2023.12.008
9. Crump J, Suker A, White L. Endometriosis: A review of recent evidence and guidelines. *AJGP*. 2024;53(1-2).
10. Donnez O. Conservative management of rectovaginal deep endometriosis: Shaving should be considered as the primary surgical approach in a high majority of cases. *J Clin Med*. 2021;10(21):5183. doi:10.3390/jcm10215183
11. European Society of Human Reproduction and Embryology (ESHRE). Endometriosis guideline of European Society of Human Reproduction and Embryology. Published online 2022. https://www.eshre.eu/guideline/endometriosis
12. Hajati A, Hajati O. A review of more than 2000 cases of site-specific pelvic endometriosis rates by MRI: A guide to minimizing under/overdiagnosis non-invasively. *Insights Imaging*. 2022;13(1):129. doi:10.1186/s13244-022-01270-z
13. Noventa M, Saccardi C, Litta P, et al. Ultrasound techniques in the diagnosis of deep pelvic endometriosis: Algorithm based on a systematic review and meta-analysis. *Fertil Steril*. 2015;104(2):366-383.e2. doi:10.1016/j.fertnstert.2015.05.002
14. Pant A, Moar K, K. Arora T, Maurya P. Biomarkers of endometriosis. *Clin Chim Acta*. 2023;549:117563. doi:10.1016/j.cca.2023.117563
15. International Society of Ultrasound in Obstetrics and Gynecology (ISUOG). *Deep Endometriosis of the Uterosacral Ligaments*. https://www.isuog.org/clinical-resources/patient-information-series/patient-information-gynecological-conditions/deep-endometriosis-of-the-uterosacral-ligaments.html
16. Kondo W, Branco A, Trippia C, Ribeiro R, Zomer M. Retrocervical deep infiltrating endometriotic lesions larger than thirty millimeters are associated with an increased rate of ureteral involvement. *J Minim Invasive Gynecol*. 2013;20(1):100-103. doi:10.1016/j.jmig.2012.09.012
17. Ellis K, Wood R. Research priorities of endometriosis patients and supporters in Aotearoa New Zealand. *Aust N Z J Obstet Gynaecol*. 2024;64(6):548-555. doi:10.1111/ajo.13831
18. Australian Institute of Health and Welfare (AIHW). *1 in 7 Australian Women Aged 44–49 Have Endometriosis*. 2023. https://www.aihw.gov.au/news-media/media-releases/2023/2023-september/1-in-7-australian-women-aged-44-49-have-endometriosis
19. British Medical Ultrasound Society (BMUS), British Society for Gynaecological Endoscopy (BSGE). *BMUS / BSGE Guidance for Ultrasound Assessment of Endometriosis*. 2026.
20. Department of Health Australian Government. National action plan for endometriosis. Published online 2018. https://www.health.gov.au/sites/default/files/national-action-plan-for-endometriosis.pdf
21. National Institute for Health and Care Excellence (NICE). Endometriosis: Diagnosis and management. Published online 2024. https://www.nice.org.uk/guidance/ng73
22. Avery J, Fragkoudi A, Deslandes A, et al. Global trends in the uptake of specialist diagnostic ultrasound and MRI scans for endometriosis: An international cross-sectional survey. *Int J Gynecol Obstet*. Published online November 14, 2025:ijgo.70666. doi:10.1002/ijgo.70666
23. Piessens S, Edwards A. Assessing endometriosis during routine gynaecological ultrasound: The road less traveled. *J Minim Invasive Gynecol*. 2022;29(10):1121-1122. doi:10.1016/j.jmig.2022.08.006
24. Condous G, Gerges B, Thomassin-Naggara I, et al. Non invasive imaging techniques for diagnosis of pelvic deep endometriosis and endometriosis classification systems: An International Consensus Statement. *Ultrasound Obstet Gynecol*. 2024;64(1):129-144. doi:10.1002/uog.27560
25. Kanti F, Allard V, Maheux-Lacroix S. Quality of life and symptoms of pain in patients with endometriomas compared to those with other endometriosis lesions: A cross-sectional study. *BMC Womens Health*. 2024;24(1):72. doi:10.1186/s12905-024-02919-1
26. Feldman M, Wasnik A, Adamson M, et al. ACR Appropriateness Criteria® Endometriosis. *J Am Coll Radiol*. 2024;21(11):S384-S395. doi:10.1016/j.jacr.2024.08.017
27. Ottolina J, Villanacci R, D'Alessandro S, et al. Endometriosis and adenomyosis: Modern concepts of their clinical outcomes, treatment, and management. *J Clin Med*. 2024;13(14):3996. doi:10.3390/jcm13143996
28. International Working Group of AAGL, ESGE, ESHRE and WES, Tomassetti C, Johnson NP, et al. An international terminology for endometriosis. 2021,. *Hum Reprod Open*. 2021;2021(4):hoab029. doi:10.1093/hropen/hoab029
29. Pascual M, Guerriero S, Hereter L, et al. Diagnosis of endometriosis of the rectovaginal septum using introital three-dimensional ultrasonography. *Fertil Steril*. 2010;94(7):2761-2765. doi:10.1016/j.fertnstert.2010.02.050
30. Benedetto C, Cacozza D, De Sousa Costa D, et al. Abdominal wall endometriosis: Report of 83 cases. *Int J Gynecol Obstet*. 2022;159(2):530-536. doi:10.1002/ijgo.14167

31. Tan S, Leonardi M, Lo G, Lee E. Role of ultrasonography in the diagnosis of endometriosis in infertile women: Ovarian endometrioma, deep endometriosis, and superficial endometriosis. *Best Pract Res Clin Obstet Gynaecol*. 2024;92:102450. doi:10.1016/j.bpobgyn.2023.102450
32. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). Australian living evidence guideline: Endometriosis. Published online 2025. https://ranzcog.edu.au/womens-health/endometriosis/
33. Deslandes A, Condous G. Can you be diagnosed with endometriosis from an ultrasound? *Endometr Aust*. Published online 2023. https://endometriosisaustralia.org/diagnosed-endometriosis-ultrasound/
34. ASA. *Guide to Consent and Chaperones for Intimate Medical Ultrasound Examinations*. 2024. www.sonographers.org.au
35. Ministry of Health Aotearoa New Zealand. *Diagnosis and Management of Endometriosis in New Zealand*. Ministry of Health; 2020. https://www.health.govt.nz/publications/diagnosis-and-management-of-endometriosis-in-new-zealand
36. Australasian Sonographers Association (ASA) and Australian Sonographer Accreditation Registry (ASAR). *Code of Conduct for Sonographers*. 2025. https://www.sonographers.org/publicassets/8792f4b8-7b60-f011-913f-0050568796d8/Code-of-Conduct-for-Sonographers-2025.pdf
37. Childs J, Thoirs K, Osborne B, et al. Professional Competency Framework for Sonographers. Published online 2021.
38. Timmerman D, Valentin L, Testa A, Froyman W, Landolfo H, Kotlarz A. Terms, definitions and measurements to describe the sonographic features of adnexal tumors: updated consensus opinion from the International Ovarian Tumor Analysis (IOTA) group. *Ultrasound Obstet Gynecol*. Published online 2026. doi:doi.org/10.1002/uog.70191
39. Yang X, Deslandes A, Cross T, Childs J. Transvaginal ultrasound for the diagnosis of endometriosis: current practices and barriers in Australian sonographers. *Australas J Ultrasound Med*. 2025;28(2):e70003. doi:10.1002/ajum.70003
40. Australasian Sonographers Association (ASA), British Medical Ultrasound Society (BMUS). *Reducing the Risk of Litigation: Information for Sonographers*. 2024. https://www.sonographers.org/publicassets/4b220dd7-67b0-ef11-9136-0050568796d8/ASA-BMUS-Joint-Medico-Legal-Information-for-Sonographers_June-2024_FINAL.pdf
41. Australasian Sonographers Association (ASA), Australasian Society for Ultrasound in Medicine (ASUM). *ASA and ASUM Joint Guideline for Reducing Injuries to All Ultrasound Users*. 2020. https://www.sonographers.org/publicassets/fc4e543a-f322-eb11-90fc-0050568796d8/ASA-ASUM_WRMSD_GL-Web-Version-11-2020.pdf
42. Harmsen M, Van Den Bosch T, De Leeuw R, et al. Consensus on revised definitions of Morphological Uterus Sonographic Assessment (MUSA) features of adenomyosis: results of modified Delphi procedure. *Ultrasound Obstet Gynecol*. 2022;60(1):118-131. doi:10.1002/uog.24786
43. Menakaya U, Reid S, Lu C, Bassem G, Infante F, Condous G. Performance of ultrasound-based endometriosis staging system (UBESS) for predicting level of complexity of laparoscopic surgery for endometriosis. *Ultrasound Obstet Gynecol*. 2016;48(6):786-795. doi:10.1002/uog.15858
44. Rajesh S, Mehmeti A, Smith-Walker T, Kendall B. Diagnosis and management of endometriosis: summary of updated NICE guidance. *BMJ*. Published online January 31, 2025:q2782. doi:10.1136/bmj.q2782
45. Australasian Sonographers Association (ASA). *Sonography Scope of Practice*. 2025. https://www.sonographers.org/publicassets/d84a005a-cad3-f011-9148-0050568796d8/Scope-of-Practice-2025.pdf
46. Karavadra B, Thorpe G, Morris E, Semlyen J. Exploring delay to diagnosis of endometriosis, a healthcare professional perspective. *BMC Health Serv Res*. 2025;25(1):1483. doi:10.1186/s12913-025-13536-5
47. Mazza D, Thapaliya K, Crawford S, Hui A, Moradi M, Grzeskowiak L. The clinical presentation, investigation, and management of women diagnosed with endometriosis in Australian general practices, 2011–2021: an open cohort study. *Med J Aust*. 2025;223(11):586-592. doi:10.5694/mja2.70062
48. Wise E, Morgan M, Biggs E, et al. A systematic search and narrative review of Aboriginal and Torres Strait Islander women and men pelvic health care: demonstrated need for improvement. *Aust J Prim Health*. 2024;30(1):PY23167. doi:10.1071/PY23167
49. Muller J, Devine S, Geia L, et al. Audit tools for culturally safe and responsive healthcare practices with Aboriginal and Torres Strait Islander people: A scoping review. *BMJ Glob Health*. 2024;9(1):e014194. doi:10.1136/bmjgh-2023-014194
50. Reinhardt A, Mardon A, Eitze S, et al. Understanding endometriosis knowledge among diagnosed and symptomatically at-risk individuals in Australia. *Npj Womens Health*. 2025;3(1):46. doi:10.1038/s44294-025-00096-6
51. Humphries L, Rush M, Pollie M, et al. Diagnostic disparities in endometriosis and adenomyosis: Investigating social vulnerability and access to care in an ancestrally diverse population. *J Minim Invasive Gynecol*. Published online February 2026:S1553465026001044. doi:10.1016/j.jmig.2026.02.010
52. Li J, Yong-Hing C, Jessup J, Kielar A, Pang EHT. Endometriosis imaging in the community setting: implementation of the SRU consensus recommendations on routine pelvic US. *Abdom Radiol*. 2025;50(10):4878-4885. doi:10.1007/s00261-025-04906-y
53. Leonardi M, Uzuner C, Mestdagh W, et al. Diagnostic accuracy of transvaginal ultrasound for detection of endometriosis using International Deep Endometriosis Analysis (IDEA) approach: Prospective international pilot study. *Ultrasound Obstet Gynecol*. 2022;60(3):404-413. doi:10.1002/uog.24936
54. Nezhat C, Vang N, Tanaka P, Nezhat C. Optimal management of endometriosis and pain. *Obstet Gynecol*. 2019;134(4):834-839. doi:10.1097/AOG.0000000000003461
55. Luscombe G, Markham R, Judio M, Grigoriu A, Fraser IS. Abdominal bloating: An under-recognized endometriosis symptom. *J Obstet Gynaecol Can*. 2009;31(12):1159-1171. doi:10.1016/S1701-2163(16)34377-8
56. Ek M, Roth B, Ekström P, Valentin L, Bengtsson M, Ohlsson B. Gastrointestinal symptoms among endometriosis patients—A case-cohort study. *BMC Womens Health*. 2015;15(1):59. doi:10.1186/s12905-015-0213-2
57. Szabó G, Bokor A, Fancsovits V, et al. Clinical and ultrasound characteristics of deep endometriosis affecting sacral plexus. *Ultrasound Obstet Gynecol*. 2024;64(1):104-111. doi:10.1002/uog.27602
58. Szabó G, Madár I, Hudelist G, et al. Visualization of sacral nerve roots and sacral plexus on gynecological transvaginal ultrasound: Feasibility study. *Ultrasound Obstet Gynecol*. 2023;62(2):290-299. doi:10.1002/uog.26204
59. Zamurovic M, Tomic A, Djordjevic K, et al. Isolated deep infiltrating endometriosis of the sciatic nerve: A case report and overview of the literature. *Medicina (Mex)*. 2023;59(12):2161. doi:10.3390/medicina59122161
60. Cao Q, Huang H, Cao Q, Li J. Hydronephrosis due to ureteral endometriosis. *Am J Med Sci*. 2023;366(5):e75-e76. doi:10.1016/j.amjms.2023.04.032

Appendix 1. Evidence map for Table 1

Expanded evidence map underpinning each Table 1 recommendation.

Recommendation	Expanded evidence map	Notes on evidence, feasibility, and gaps
Match appointment time to assessment tier and complexity	• International Radiology consensus statement on routine pelvic ultrasound for endometriosis.[5] • Professional society guidance on minimising injury and risk of litigation. • Reducing the risk of litigation: Information for Sonographers | ASA-BMUS Joint Statement[40] • ASA and ASUM joint Guidelines for Reducing Injuries to all Ultrasound Users[41]	• Feasibility and service capability are the primary drivers, with limited direct comparative evidence to define optimal appointment length. • Implementation is influenced by workforce capacity, scan scheduling, and occupational health considerations. • Evidence gaps remain regarding impacts on diagnostic accuracy, patient burden, and sonographer injury risk.
Use standardised terminology and structured reporting frameworks	• International Deep Endometriosis Analysis (IDEA) consensus on systematic evaluation and terminology.[4] • Morphological Uterus Sonographic Assessment (MUSA)[42] consensus for adenomyosis descriptors. • International Ovarian Tumour Analysis (IOTA)[38] consensus for adnexal lesion characterisation. • Classification statements for disease description systems such as #Enzian; service dependent staging tools may be used where aligned to local pathways.[1,3,43]	• Evidence supports improved consistency and communication through standardised terminology, though outcome-based comparative studies are limited. • Feasibility is high with access to templates, training, and reporting system alignment. • Further research is needed on implementation outcomes across diverse practice settings.
Include dynamic assessment and mobility markers	• International radiology consensus recommends posterior compartment assessment and sliding sign evaluation for endometriosis, and cautions against over-reliance on indirect markers, advocating for structured, multi-feature interpretation.[5] • IDEA consensus supports dynamic assessment within structured endometriosis ultrasound.[4] • Systematic reviews, including meta-analyses on sliding sign performance, support clinical utility. • Professional society guidance endorses multi feature assessment.[19]	• Evidence supports dynamic assessment, including the sliding sign, as a useful adjunct, though findings are operator- and technique-dependent. • Feasibility is high within routine practice with appropriate training and minimal additional scan time. • Evidence gaps include standardisation of technique and inter-observer reproducibility in non-specialist settings.

Describe lesions using a structured, compartment-based approach	• Professional society guidance for ultrasound assessment of endometriosis.[19] International consensus supporting compartment-based assessment and lesion descriptors (IDEA).[4] • Training and learning curve studies for deep endometriosis detection and mapping.[44]	• Evidence is supported by international consensus and observational studies demonstrating improved communication and clinical utility. • Feasibility depends on practitioner expertise, scan time, and access to structured frameworks and training.
Escalate complex, indeterminate, or discordant cases to specialist endometriosis imaging services	• Professional society guidance emphasising escalation, referral pathways, and capability based service models.[19,45] • International consensus recommending triage and further imaging where indicated.[5]	• This recommendation is consensus-driven, reflecting recognised limitations of operator-dependent imaging in complex disease. • Feasibility varies according to access to specialist services and established referral pathways. • Evidence gaps remain regarding optimal triage thresholds and impacts on diagnostic delay and patient outcomes.
Superficial peritoneal endometriosis may be described if seen, but interpret with caution and is not used to exclude disease	• International consensus describes limitations for superficial peritoneal endometriosis on ultrasound and recommends cautious interpretation.[4,5] Peer-reviewed reviews on diagnostic delay and limitations of non-invasive diagnosis support explicit caveats in reporting.[46,47]	• Evidence quality is low due to limited sonographic detectability and lack of robust validation studies. • Feasibility is variable and dependent on technical factors and operator experience. • Further research is required to clarify diagnostic performance and clinical value in routine practice.
Embed equity, access, and culturally safe practice in implementation	• Peer-reviewed reviews on culturally safe pelvic healthcare for First Nation peoples.[17] • Australian Journal of Primary Health[48] • Cultural safety accountability mechanisms.[49] • International systematic reviews and scoping reviews describing persistent endometriosis diagnostic delay[46,47] • Research on diagnostic disparities linked to social vulnerability.[50,51] Implementation literature describing community pathway adoption.[52]	• Evidence is largely indirect but consistently demonstrates diagnostic delay and inequities linked to health system variation. • Implementation feasibility depends on local pathways, service design, and engagement with equity frameworks.

Appendix 2: Risk factors of endometriosis

Note risk factors are not diagnostic and may vary individually.

Risk factor	Definition
Obstructive Müllerian anomalies	Congenital uterine anomalies causing blockage and/or retrograde menstrual outflow are associated with significant increased prevalence of endometriosis, seen in up to 47% of affected individuals.[7]
Early menarche	Onset of menstruation at or before 12 years of age is linked to an increased risk due to prolonged exposure to oestrogen.[7]
Short menstrual cycles	Cycles shorter than 28 days may contribute to increased retrograde menstruation, a proposed mechanism in endometriosis development.[7]
Lower body mass index	Individuals with a lower body mass index (BMI) may be at increased risk.[7]
Nulliparity	People who have not given birth have a higher incidence of endometriosis compared with those who have.[7]
Family history	Having a first-degree relative with endometriosis increases the risk by 7-10 times.[7]

Appendix 3: Symptoms associated with endometriosis

Symptom	Definition
Dysmenorrhoea	Severe menstrual cramps that may radiate to the lower back and abdomen. Pain may begin before menstruation, persist for several days and even extend into the menstrual period.[9,11,13,21,53]
Chronic pelvic pain	Persistent or intermittent pain in the pelvic region, not necessarily linked to the menstrual cycle. May worsen over time. [9,11,13,21]
Mittelschmerz	Ovulation pain is often more severe or disruptive in those who have endometriosis.[54]
Dyspareunia	Deep, aching post-coital pain during or after sexual intercourse, which can significantly affect intimacy and quality of life.[9,11,13,21,53]
Dysuria	Pain or discomfort during urination, often mistaken for urinary tract infections. May include urinary frequency and urgency.[9,11,13,21]
Dyschezia	Pain during defecation, which can be severe and debilitating. May be accompanied by constipation or diarrhoea.[9,11,13,21]
Haematochezia	Rectal bleeding during menstruation, along with episodes of proctalgia fugax (sudden, intense, and fleeting episodes of sharp, stabbing pain in the anus or rectum), may suggest bowel involvement.[9,11,13,21]
Bloating / abdominal distension	Frequently associated with significant gastrointestinal symptoms, with affected patients experiencing higher rates of abdominal pain, constipation, bloating, flatulence, defecation urgency, and incomplete evacuation.[55,56]
Shoulder tip pain	Referred pain in the shoulder area, potentially due to diaphragmatic endometriosis.[9,11,13,21]
Cyclical scar swelling and pain	Swelling and pain in surgical scars (e.g., caesarean sections, laparoscopies) that occur cyclically.[9,11,13,21]
Fatigue	Chronic fatigue and low energy levels, often exacerbated by anaemia, pain and sleep disturbances. Can significantly impact daily function and mental wellbeing.[9,11,13,21]
Fertility-related complications	Difficulty conceiving affects up to 50% of individuals with endometriosis.[5,9] Mechanisms include anatomical distortions, ovarian dysfunction, adhesions causing tubal blockage, and inflammatory changes.[7] Other complications include ectopic pregnancy, subfertility, and recurrent miscarriage.
Less common symptoms	
Dysesthesia and paraesthesia	Ipsilateral lower-limb sensory disturbance (dysesthesia and paraesthesia), suggestive of neural involvement.[57,58] Occurs when endometriotic lesions irritate or entrap pelvic nerves, including the sciatic nerve or sacral plexus.[59]
Hydronephrosis and haematuria	Ureteric involvement is uncommon but when present, can cause ureteric obstruction, resulting in hydronephrosis, loss of renal function, and sometimes macroscopic haematuria.[60]

Appendix 4: Escalation to Level 2 assessment

Sonographers and reporting clinicians should consider prompt escalation and referral for further assessment, including specialist ultrasound services and/or pelvic MRI, when ultrasound findings, symptom burden, or clinical context suggest disease beyond routine assessment capability.[24] Clear and consistent escalation criteria are important to minimise diagnostic delay, avoid repeat TVUS examinations, and ensure that individuals with suspected endometriosis receive an appropriately comprehensive assessment. Level 1 assessment is limited to clearly visualised findings within routine scope and should not be used to exclude disease or delay definitive evaluation when suspicion is high. Escalation to a Level 2 endometriosis-focused ultrasound is recommended when any of the following apply:

Symptoms or clinical context

- Severe, complex, or multifocal pain patterns (e.g., severe dysmenorrhoea, deep dyspareunia, dyschezia, cyclical bowel or bladder symptoms) that are discordant with minimal or normal Level 1 findings.
- High pre-test suspicion based on clinical history, examination, or prior imaging.
- Infertility in the presence of suspected endometriosis or distorted pelvic anatomy.
- Recurrent symptoms following prior surgery, particularly when deep disease or adhesions are suspected.

Posterior compartment or POD abnormalities

- Negative or indeterminate POD sliding sign, especially when associated with restricted organ mobility.
- Suspected obliteration of the POD or markedly reduced mobility of the uterus, ovaries, or bowel.
- Visible or suspected DE.

Suspected DE in any compartment

- Non-mobile ovaries in the context of suspected adhesions or multifocal disease.
- Kissing ovaries, particularly when associated with restricted mobility or suspected posterior compartment involvement.

Bowel, bladder, or ureteric involvement

- Suspected bowel DE, including bowel wall thickening, hypoechoic nodules, or fixation of the rectosigmoid.
- Suspected bladder endometriosis or anterior compartment lesions beyond basic screening capability.
- Ureteric dilatation or hydronephrosis, or concern for ureteric involvement.

Adnexal pathology requiring advanced assessment

- Complex adnexal masses, including endometriomas with atypical features or associated adhesions.
- Hydrosalpinx or haematosalpinx in the context of suspected endometriosis.
- Multifocal or bilateral disease requiring mapping for surgical planning.

Technical or interpretive limitations at Level 1

- Inadequate visualisation of key structures due to patient factors, pain, or anatomical distortion.
- Findings that are complex, indeterminate, or outside the practitioner's scope, including subtle lesions or suspected superficial peritoneal disease.
- Discordance between symptoms, clinical suspicion, and Level 1 sonographic findings.

Anticipated surgical complexity

- Any scenario where detailed compartment-based mapping is required to support multidisciplinary planning, including potential involvement of colorectal, urological, or fertility specialists.

This pathway should be supported by explicit discussion of patient-level benefits and harms (including financial burden, access inequities, and the physical and psychological burden of repeat examinations) and by mitigation strategies such as clear escalation criteria, structured reporting, and avoiding sequential imaging where endometriosis is the primary diagnostic question.

Appendix 5: Clinical history

Sonographers should aim to gather the following information, where appropriate, to support diagnostic accuracy and optimise patient care:

	Clinical history
Menstrual history	☐ Age at menarche (relevant primarily in adolescents, as early menarche is a recognised epidemiological risk factor but has limited relevance to ultrasound assessment in adults). ☐ Cycle regularity, duration, and LMP date. ☐ Menstrual flow characteristics (e.g., heavy, prolonged, clotting). ☐ Presence and severity of dysmenorrhoea (pain before, during, or after menstruation).
Obstetric and fertility history	☐ Gravida and parity (G/P), including mode of delivery (e.g., vaginal, caesarean). ☐ History of infertility or difficulty conceiving. ☐ Previous pregnancies and any complications. ☐ Presence of caesarean section scars or other pelvic surgeries.
Pain assessment	☐ Nature, location, and timing of pelvic pain (e.g., cyclical, chronic, deep dyspareunia, dyschezia, dysuria). ☐ Pain severity and impact on daily activities. ☐ History of acute pain episodes requiring emergency care or hospitalisation. ☐ Response to hormonal treatments or previous surgeries.
Gynaecological and surgical history	☐ Previous diagnosis of ovarian cysts or endometriosis. ☐ History of pelvic surgeries (e.g., laparoscopy, excision of endometriosis). ☐ Use of hormonal therapies (e.g., COCP, progestins, Mirena, Visanne, HRT, Tamoxifen). • Note any changes in symptoms with initiation or cessation of therapy.
Family history	☐ First-degree relatives (mother, sister) with endometriosis.

Level 2, 93–95 Queen Street
Melbourne VIC 3000, Australia

T | +61 3 9552 0000

E | researchandstandards@sonographers.org

www.sonographers.org