



Module 4: Intermediate: Ultrasound in gynaecology

Learning outcomes

The overall aim of this module is to ensure that the trainee understands the indications for gynaecological ultrasound examination, is able to perform a pelvic scan safely and competently and to report the findings in the clinical context.

The trainee should be able to:

- take a proper clinical history.
- carry out ultrasound examination in the appropriate environment with respect to the patients' privacy, cultural and religious needs.
- select the equipment which is appropriate for the examination and to optimise its settings.
- conduct the examination effectively in a gentle and considerate manner.
- understand the normal morphological ultrasound appearances of the female pelvis and its variations during the menstrual cycle.
- diagnose common gynaecological abnormalities and to interpret ultrasound findings in the context of patient's clinical history and symptoms.
- understand the limits of their competence and the need to seek advice where appropriate.
- write a structured report
- learn when to refer patients where appropriate.

OSATS

Ultrasound assessment of the normal female pelvis

Ultrasound assessment of uterine fibroids

Ultrasound assessment of endometrial abnormality

Ultrasound assessment of pelvic pain

Ultrasound assessment of ovarian lesions



Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Principles of ultrasound examination</p> <ul style="list-style-type: none"> • Physics • Safety • Machine set-up and operation • Patient care • Principles of report writing • Consent • Cultural Diversity 	<p>Understand the principles of conducting a safe and appropriate ultrasound examination</p> <p>Use an ultrasound machine competently and independently</p>	<p>Safe use of the ultrasound machine</p> <p>Appropriate care of the patient during examination</p>	<p>Course including both:</p> <p>Theory</p> <p>Practical demonstration of machine use and reporting</p>	<p>Certificate of attendance at course</p> <p>Case based discussion</p>
<p>Documentation of scan</p> <p>Understand need for accurate documentation of scan findings</p> <p>Record and label images</p> <p>Principles of reporting</p>	<p>Record scan findings clearly and accurately and keep appropriate hard copy or video records of anomalies.</p> <p>Know limits of own ability and when to refer for further opinion</p>	<p>Communicate scan findings to other health professionals</p>	<p>Supervised clinical learning sessions</p>	



Knowledge criteria background	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Normal ultrasound findings</p> <p>Knowledge of normal ultrasound appearances of the endometrium, myometrium and ovaries throughout a menstrual cycle.</p> <p>Understanding of techniques to measure the uterus, endometrium.</p> <p>Knowledge of normal ultrasound appearances of the ovaries and adnexa.</p>	<p>Ability to consistently identify and examine the uterus, ovaries, adnexa and pouch of Douglas.</p> <p>Ability to assess cyclical endometrial changes and endometrial responses to the combined pill and other hormonal preparations.</p> <p>Ability to assess the uterine size and to accurately measure endometrial thickness.</p> <p>Ability to assess ovarian volume and functional changes in the ovaries and adnexa during menstrual cycle: follicular appearances, variation in the morphology of corpora lutea, functional cysts, fluid in pouch of Douglas.</p>	<p>Conduct scan to appropriate standard.</p> <p>Ability to work within local protocols for standards in ultrasound</p> <p>Collaboration with consultant colleagues and colleagues in other specialities and departments</p> <p>Ability to communicate the results to patients</p> <p>Appropriate report writing and the need for onward referral and or additional imaging</p>	<p>Mandatory education and training sessions</p> <p>Theoretical course (local or RCOG)</p> <p>Supervised structured clinical learning sessions</p> <p>Personal study – Textbooks of gynaecological ultrasound</p>	<p>OSATS: Ultrasound assessment of the normal female pelvis</p> <p>All OSATS include a section on 'appropriate probe selection'. It is expected that transabdominal and/or transvaginal approaches should be used as appropriate</p> <p>Certificate of course attendance</p> <p>Log of experience</p>



Knowledge criteria background	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Gynaecological abnormalities: uterine</p> <p>Knowledge of the ultrasound appearances of fibroids and adenomyosis.</p> <p>Knowledge of endometrial pathology</p> <p>IUCD localisation</p>	<p>Ability to diagnose uterine fibroids, measure their size and assess their relation to the endometrial cavity. Correlate ultrasound findings to clinical symptoms.</p> <p>Ability to assess fibroids and adenomyosis and differentiate where possible.</p> <p>Ability to interpret the measurement of endometrial thickness in the clinical context.</p> <p>Ability to differentiate between focal and global endometrial thickness.</p> <p>To be able to identify IUCD and its location within the uterus.</p>	<p>Conduct scan to appropriate standard.</p> <p>Ability to work within local protocols for standards in ultrasound</p> <p>Working in a multidisciplinary team</p> <p>Collaboration with consultant colleagues and colleagues in other specialities and departments</p> <p>Ability to communicate the results to patients</p> <p>Appropriate report writing and the need for onward referral and or additional imaging</p>	<p>Mandatory education and training sessions</p> <p>Theoretical course (local or RCOG)</p> <p>Supervised structured clinical learning sessions</p> <p>Personal study – Textbooks of gynaecological ultrasound</p>	<p>OSATS: Ultrasound assessment of uterine fibroids</p> <p>Ultrasound assessment of endometrial abnormality</p> <p>All OSATS include a section on ‘appropriate probe selection’. It is expected that transabdominal and/or transvaginal approaches should be used as appropriate</p> <p>Certificate of course attendance</p> <p>Log of experience</p>



Knowledge criteria background	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Gynaecological abnormalities: ovarian lesions</p> <p>Knowledge of the differential diagnosis of ovarian and para-ovarian lesions.</p> <p>Knowledge of typical ultrasound findings of common ovarian appearances such as polycystic ovaries.</p> <p>Knowledge of ultrasound features of ovarian cancer and the features of advanced disease.</p>	<p>Ability to perform ultrasound examination combined with palpation in order to accurately identify the origin of pelvic lesion and interpret this in the clinical context.</p> <p>Ability to assess the size of adnexal lesions including mean diameter and volume.</p> <p>Ability to approach the assessment of adnexal lesions in a systematic way. Familiarity with standardised terms and definitions to describe sonographic features of adnexal lesions</p> <p>Ability to diagnose simple functional and haemorrhagic cysts, polycystic ovaries, dermoids and endometriomas based on subjective assessment alone.</p> <p>Ability to recognise abnormal pelvic fluid/ascites</p>	<p>Conduct scan to appropriate standard.</p> <p>Ability to work within local protocols for standards in ultrasound</p> <p>Working in a multidisciplinary team</p> <p>Collaboration with consultant colleagues and colleagues in other specialities and departments</p> <p>Ability to communicate the results to patients</p> <p>Appropriate report writing and the need for onward referral and or additional imaging</p>	<p>Mandatory education and training sessions</p> <p>Theoretical course (local or RCOG)</p> <p>Supervised structured clinical learning sessions</p> <p>Personal study: Textbooks of gynaecological ultrasound</p>	<p>OSATS: Ultrasound assessment of ovarian lesions</p> <p>All OSATS include a section on 'appropriate probe selection'. It is expected that transabdominal and/or transvaginal approaches should be used as appropriate</p> <p>Certificate of course attendance</p> <p>Log of experience</p>



Knowledge criteria background	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Extraovarian lesions</p> <p>Knowledge of the principles of conducting ultrasound examination in chronic pelvic pain. Knowledge of typical morphological features of endometriosis, and pelvic adhesions.</p>	<p>Ability to take a good clinical history in order to facilitate differential diagnosis of pelvic pain.</p> <p>Be able to assess tenderness and mobility of pelvic organs including the pouch of Douglas on transvaginal ultrasound scan.</p> <p>Ability to recognise ovarian endometriomas, hydrosalpinges, the consequences of pelvic adhesions and peritoneal pseudocysts on ultrasound scan.</p>	<p>Conduct scan to appropriate standard.</p> <p>Ability to work within local protocols for standards in ultrasound</p> <p>Working in a multidisciplinary team</p> <p>Collaboration with consultant colleagues and colleagues in other specialities and departments</p> <p>Ability to communicate the results to patients</p> <p>Appropriate report writing and the need for onward referral and or additional imaging</p>	<p>Mandatory education and training sessions</p> <p>Theoretical course (local or RCOG)</p> <p>Supervised structured clinical learning sessions</p> <p>Personal study – Textbooks of gynaecological ultrasound</p> <p>Relevant green top guidelines:- 24 - Endometriosis 33 - PCO 41 – Pelvic Pain (chronic)</p>	<p>OSATS: Ultrasound assessment of pelvic pain</p> <p>All OSATS include a section on ‘appropriate probe selection’. It is expected that transabdominal and/or transvaginal approaches should be used as appropriate</p> <p>Log of experience</p> <p>Certificate of course attendance</p>



Intermediate ultrasound in gynaecology logbook

Skill	Competence level					
	Level 1		Level 2		Level 3	
	Date	Signature	Date	Signature	Date	Signature
Ultrasound of the female pelvis						
Selection and set up of the US machine to ensure safe and optimal use to include appropriate probe selection and orientation						
Correct and appropriate transabdominal and transvaginal probe care and infection control						



Skill	Competence level					
	Level 1		Level 2		Level 3	
	Date	Signature	Date	Signature	Date	Signature
Gynaecological ultrasound						
Accurate measurement of the endometrium in the accepted sagittal plane						
Assessment of the adnexal regions: accurate identification of the normal ovaries, normal fallopian tube, normal pelvic fluid						
Accurate measurement of normal and abnormal adnexal structures: mean diameter and volume						
Recognise and evaluate common endometrial and myometrial abnormalities						
Recognise and evaluate common ovarian abnormalities						
Recognise and evaluate complex ovarian masses and refer on appropriately						
Communicating normal results to patients						
Communicating appropriate abnormal results to patients						
Producing written summary and interpretation of results						
Issue structured written report						
Arranging appropriate follow up or intervention						
Working in a multi-disciplinary team						



Training Courses or sessions		
Title	Signature of educational supervisor	Date

OSATS	Each OSATS should be successfully completed for Independent Practice on 3 occasions before the module can be signed off					
Ultrasound assessment of the normal female pelvis	Date		Date		Date	
	Signature		Signature		Signature	
Ultrasound assessment of uterine fibroids	Date		Date		Date	
	Signature		Signature		Signature	
Ultrasound assessment of endometrial abnormality	Date		Date		Date	
	Signature		Signature		Signature	
Ultrasound assessment of pelvic pain	Date		Date		Date	
	Signature		Signature		Signature	
Ultrasound assessment of ovarian lesions	Date		Date		Date	
	Signature		Signature		Signature	



Authorisation of signatures (to be completed by the clinical trainers)

Name of clinical trainer (please print)	Signature of clinical trainer

COMPLETION OF MODULE

I confirm that all components of the module have been successfully completed:

Date	Name of educational supervisor	Signature of educational supervisor