



## Ultrasound and screening in the first trimester

### Learning outcomes

The overall aim of this module is to ensure that the trainee is competent at independently performing and reporting findings of transabdominal and transvaginal ultrasound examinations.

Trainees must demonstrate an understanding of the appropriate knowledge, skills and attitudes to undertake screening procedures for the risk assessment of aneuploidy in the first trimester.

Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<b>Principles of ultrasound examination</b>  <ol style="list-style-type: none"><li>1. Physics</li><li>2. Safety</li><li>3. Machine set-up and operation</li><li>4. Patient care</li><li>5. Principles of report writing</li><li>6. Consent</li><li>7. Cultural diversity</li></ol>	  Understand the principles of conducting a safe and appropriate transabdominal and transvaginal ultrasound examination.  Competent of using an ultrasound machine independently	  Safe use of the ultrasound machine  Appropriate care of the patient during examination	  Course including both: <ul style="list-style-type: none"><li>• theory</li><li>• practical demonstration and reporting of machine use</li></ul>	  Certificate of attendance at course  Case discussion in clinic



Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p><b>Documentation of scan</b></p> <ol style="list-style-type: none"><li>1. Understand need for accurate documentation of scan</li><li>2. Record appropriate images</li></ol>	<p>To write a structured report of the scan findings and keep appropriate hard copy or video records of anomalies</p>	<p>Communicate scan findings to other health professionals</p>	<p>Supervised structured clinical learning sessions</p>	<p><b>OSATS:</b></p> <p>Ultrasound assessment of intrauterine pregnancy.</p> <p>Transabdominal ultrasound assessment of adnexae in early pregnancy</p>



Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p><b>Normal ultrasound findings</b></p> <ol style="list-style-type: none"> <li>1. Recognise fetal heart beat</li> <li>2. Know requirements for 'early pregnancy scanning' RCOG guidelines</li> <li>3. Know anatomical landmarks for performing standard fetal measurements: i.e. [CRL] [MGSD]</li> <li>4. Recognise normal appearance of adnexal structures</li> <li>5. Know the appropriate assessment of risks of aneuploidy using serum markers</li> </ol>	<p>Identify fetal position within uterus Identify fetal number and chorionicity</p> <p>Be able to move probe with purpose to identify uterus and adnexae</p> <p>Be able to consistently and systematically identify the features of intra uterine and extra uterine gestation Be able to perform standard fetal measurements [CRL] [MGSD]</p> <p>Identify common adnexal abnormalities</p> <p>Recognise limits of competency</p> <p>Recall patients appropriately for further scans in cases of pregnancy of unknown location and interpret the findings with correlation to Serum bHCG</p>	<p>Conduct scan to appropriate standard.</p>	<p>Mandatory education and training sessions</p> <p>Theoretical course (local or RCOG)</p> <p>Supervised structured clinical learning sessions</p> <p>Attendance at first trimester scans and the Early Pregnancy Unit (EPA) unit</p> <p>Personal study – Textbooks of obstetric ultrasound</p> <p>Relevant green top guidelines</p> <p>Guidance on Ultrasound Procedures in Early Pregnancy (published jointly with the Royal College of Radiologists)</p>	<p>Certificate of course attendance</p> <p>Certificate of course attendance</p> <p>Log of experience</p> <p>Case Discussion in Clinic</p> <p><b>OSAT:</b> Transabdominal ultrasound assessment of adnexae in early pregnancy</p> <p>Transvaginal ultrasound assessment of ectopic pregnancy</p> <p>Ultrasound assessment of early pregnancy complications</p> <p>Ultrasound assessment of intrauterine pregnancy.</p>

## Ultrasound and screening in the first trimester logbook

Skill	Competence level					
	Observation		Direct supervision		Independent practice	
	Date	Signature	Date	Signature	Date	Signature
Safe use of US machine and correct settings						
Probe orientation, probe care and infection control (transabdominal and transvaginal)						
Confirmation of site of pregnancy						
Confirmation of fetal viability						
Accurate measurement of MGSD, CRL, (and NT).						
Adnexal assessment						
Accurate documentation of measurements and observations, including chart plotting						
Producing written summary and interpretation of results						

Skill	Observation		Direct supervision		Independent practice	
	Date		Date	Signature	Date	Signature
Communicating normal results to parents						
Communicating abnormal results to parents						
Arranging appropriate follow up or intervention						
Working in a multi-disciplinary team						

Training courses or sessions		
Title	Signature of educational supervisor	Date

Authorisation of Signatures	
Name (please print)	Signature



## OSATS: Transabdominal ultrasound assessment of adnexae in early pregnancy

Trainee Name:		Assessor Name:		Date:	
Level of training: Grade/ Year		Post:			

<b>Clinical details of complexity/ difficulty of case</b>	
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	Item under observation	Needs help	Done independently
1	Counsel patient about procedure		
2	Appropriate machine setup/probe selection - transabdominal		
3	Identify bladder and right/left orientation		
4	Identify uterus and endometrium		
5	Identify ovaries		
6	Assess pouch of Douglas		
7	Identify site of pregnancy and embryonic heartbeat		
8	Measure CRL or [MGSD]		
9	Interpret ultrasound findings in the context of the clinical setting		
10	Communicate results to patient		
11	Complete ultrasound report		
12	Arrange appropriate follow up		
<b>Comments</b>			

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## OSATS: Transvaginal ultrasound assessment of ectopic pregnancy

Trainee Name:		Assessor Name:		Date:
Level of training: Grade/ Year		Post:		

<b>Clinical details of complexity/ difficulty of case</b>	
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	Item under observation	Needs help	Done independently
1	Counsel patient about procedure		
2	Appropriate machine setup/probe selection - transvaginal		
3	Identify bladder and right/left orientation		
4	Identify uterus and endometrium		
5	Identify ovaries		
6	Assess pouch of Douglas		
7	Identify site of pregnancy and identify embryonic heartbeat		
8	Identify gestation sac and/or embryo and measure sac diameter [MGSD] and/or crown rump length [CRL]		
9	Interpret ultrasound findings in the context of the clinical setting  In clinical setting interpret ultrasound findings		
10	Communicate results to patient		
11	Complete ultrasound report		
12	Arrange appropriate follow up		
<b>Comments</b>			

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## OSATS: Ultrasound assessment of early pregnancy complications (transabdominal and transvaginal)

Trainee Name:		Assessor Name:		Date:
Level of training: Grade/Year		Post:		

<b>Clinical details of complexity/difficulty of case</b>	
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	Item under observation	Needs help	Done independently
1	Counsel patient about procedure		
2	Appropriate machine setup/probe selection		
3	Identify bladder and right/left orientation		
4	Identify uterus and endometrium		
5	Identify ovaries		
6	Assess pouch of Douglas		
7	Identify site of pregnancy and embryonic heartbeat		
8	Identify gestation sac and/or embryo and measure MGSD and crown rump length [CRL]		
9	Interpret ultrasound findings in clinical setting		
10	Communicate results to patient		
11	Complete ultrasound report		
12	Arrange appropriate follow up		

<b>Comments</b>
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Signature: \_\_\_\_\_

Date: \_\_\_\_\_





## OSATS: Ultrasound assessment of intrauterine pregnancy (including transvaginal scanning)

<b>Trainee Name:</b>		<b>Assessor Name:</b>		<b>Date:</b>
<b>Level of training: Grade/ Year</b>		<b>Post:</b>		

<b>Clinical details of complexity/ difficulty of case</b>	
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	Item under observation	Needs help	Done independently
1	Counsel patient about procedure		
2	Appropriate machine setup/probe selection		
4	Determine fetal number		
6	Measure CRL and/or MGSD transabdominally and transvaginally		
5	Determine chorionicity		
3	Identify fetal heart beat		
7	Interpret ultrasound findings in the context of the clinical setting		
8	Communicate results to patient		
9	Complete ultrasound report		
10	Arrange appropriate follow up if necessary		

**Comments**

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_