



Key: [Common competency framework competences](#) [Medical leadership framework competences](#) [Health inequality framework competences](#)

## Module 3: Intermediate: Ultrasound of normal fetal anatomy (2014)

### Learning outcomes

The overall aim of this module is to ensure that the trainee understands the indications for a fetal anatomy scan, is able to perform the scan safely and competently and to report the findings of the scan.

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 for pregnancy
- Conduct the examination effectively in a gentle and considerate manner
- Understand the normal morphological ultrasound appearances of the fetus and its environment
- Diagnose normal fetal anatomy
- Be aware of the normal anatomical variants
- Understand the limits of their competence and the need to seek advice where appropriate
- Communicate the results to the parents
- Write a structured report
- Learn when to refer patients where appropriate.

Trainees are advised to view guidelines for information on the alignment of this intermediate module with the ATSM in Fetal Medicine and Subspecialty Training in Maternal and Fetal Medicine

### OSATS

Normal Fetal Anatomy and Biometry



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Knowledge criteria	GMP	Clinical competency	GMP	Professional skills and attitudes	GMP	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>	1,2	<p>Understand the principles of conducting a safe and appropriate ultrasound examination in pregnancy</p> <p>Use an ultrasound machine competently and independently</p>	1,2	<p>Safe use of the ultrasound machine</p> <p>Appropriate care of the patient during examination</p>	1,2,3,4	<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 discussion in clinics</p>
<b>Documentation of scan</b> <ol style="list-style-type: none"> <li>1. Understand need for accurate documentation of scan</li> <li>2. Record appropriate images</li> </ol>	1,2	<p>Record scan findings clearly and accurately and keep appropriate hard copy or video records of anomalies</p>	1,2	<p>Communicate scan findings to other health professionals</p>	1,2,3,4	<p>Supervised structured clinical learning sessions</p>	
<b>Anatomy scan</b> <ol style="list-style-type: none"> <li>1. Know requirements for 'minimal' and 'optimal' anomaly scan as defined in current FASP 18+0 – 20+6 weeks anomaly scan (<a href="http://fetalanomaly.screening.nhs.uk/standardsandpolicies">http://fetalanomaly.screening.nhs.uk/standardsandpolicies</a>)</li> <li>2. Know anatomical landmarks for performing standard fetal measurements (BPD, HC, AC, FL)</li> <li>3. Recognise normal appearance of fetal structures and appreciate different appearance at different gestations</li> <li>4. Know the detection rates of common anomalies</li> </ol>	1,2	<p>Identify fetal position within uterus</p> <p>Be able to move probe with purpose to identify fetal structures</p> <p>Be able to consistently and systematically identify the features described in an 'optimal' anomaly scan as described in RCOG report 2000 'Ultrasound Screening' (or any subsequent report)</p> <p>Identify placental site</p> <p>Recognise limits of competency</p> <p>Recall patients appropriately for further scans if structures not seen clearly</p>	1,2	<p>Conduct scan to appropriate standard</p>	1,2	<p>Mandatory education and training sessions</p> <p>Theoretical course (local or RCOG)</p> <p>Supervised structured clinical learning sessions</p> <p>Attendance at anomaly scans</p> <p>Personal study – textbooks of obstetric ultrasound</p> <p>RCOG/RCR report 2000 'Ultrasound screening'</p>	<p>Certificate of course attendance</p> <p>Case discussion in clinic</p> <p><b>OSATS:</b> Normal fetal anatomy and biometry</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>

<sup>2</sup> GMC Good Medical Practice (GMP) Domains: **Domain 1:** Knowledge, skills and Performance **Domain 2:** Safety and quality **Domain 3:** Communication, Partnership and Teamwork. **Domain 4:** Maintaining Trust



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Knowledge criteria	GMP	Clinical competency	GMP	Professional skills and attitudes	GMP	Training support	Evidence/assessment
						RCOG/RCR report 1997 'Ultrasound screening for Fetal Abnormalities'  Relevant green top guidelines	
<b>Communication</b>  1. Provide parents with necessary information in a form they understand 2. Communicate scan findings and information given to parents to other health professionals	1,2,3,4	Provide parents with information about: 1. Normal scan findings 2. Abilities and limitations of ultrasound  To be aware of the limitations of the technique and know when to refer  To be able to discuss with parents the possibility of an abnormality and the need for a further option	1,2,3,4	Communicate relevant information to parents and other health professionals	1,2,3,4	Supervised structured clinical learning sessions	Case discussion in clinic



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Ultrasound of fetal anatomy	Competence level						Not required <input type="checkbox"/>
	Level 1		Level 2		Level 3		
	Date	Signature	Date	Signature	Date	Signature	
Safe use of US machine + correct setting							
Accurate measurements of BPD, HC, AC, FL, TCD and lateral atrial diameter of the cerebral							
Confirm normal anatomy of spine							
Confirm normal anatomy of heart and chest							
Confirm normal anatomy of abdomen							
Confirm normal anatomy of limbs							
Perform full anomaly scan							
Recognise common structural anomalies as stated in FASP ( <a href="http://fetalanomaly.screening.nhs.uk/standardsandpolicies">http://fetalanomaly.screening.nhs.uk/standardsandpolicies</a> )							
Locate placental site & cervical canal							
Assess liquor volume							
Perform uterine artery Doppler							



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Ultrasound of fetal anatomy	Competence level						Not required <input type="checkbox"/>
	Level 1		Level 2		Level 3		
	Date	Signature	Date	Signature	Date	Signature	
Communicating normal results to parents							
Arranging appropriate referral or follow up							
Working in a multi-disciplinary team							



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Authorisation of signatures (to be completed by the clinical trainers)	
Name of clinical trainer (please print)	Signature of clinical trainer



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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					
Normal Fetal Anatomy and Biometry	Date		Date		Date	
	Signature		Signature		Signature	

COMPLETION OF MODULE		
I confirm that all components of the module have been successfully completed:		
Date	Name of educational supervisor	Signature of educational supervisor