



August 2013

Module 2: Basic: Ultrasound assessment of fetal size, liquor and the placenta

All trainees entering at ST1 level will be required to complete **both** basic modules *by the end of ST3*.

The aims of this module are:

1. For trainees to become familiar with ideal machine set up and use of the transabdominal probe (including probe orientation)
2. To gain basic competences that are potentially useful in day-to-day obstetric practice, including out of hours situations: i.e. lie, presentation, placental site and liquor assessment. (Basic biometry techniques will be taught but competence to the level of 'independent practice' is not required)

Completing the two basic ultrasound modules is a very important achievement and can act as a stepping stone for further supervised training and acquisition of more advanced ultrasound competences. Completion of the two basic modules does not imply that a trainee is automatically ready for independent practice in diagnostic ultrasound (particularly in out of hours unsupervised assessment in early pregnancy). Please note that assessment before 8 weeks gestation and use of transvaginal ultrasound are not covered within the present basic modules.

Care should be taken in delegating decisions about clinical management of patients to trainees who have completed only the basic modules (particularly where management relies on the ultrasound findings). The expected utilization of ultrasound skills, both within and out of hours and whether supervised or not, should be determined and agreed by the local ultrasound supervisor in the context of local protocols for ultrasound scanning (i.e. completion of the basic modules is not in itself an automatic qualification for all elements of independent, unsupervised ultrasound practice).

We encourage all trainees to maintain a formal log of ongoing ultrasound experience once basic competence has been confirmed.

Learning outcomes

To be able to carry out appropriate:

- basic ultrasound assessment of fetal size and growth/lie/presentation
- basic assessment of liquor volume
- basic assessment of placental location
- referral as required



August 2013

Trainees should maintain an awareness of the limits of their own competencies

OSATS:

1. Fetal measurement, lie and presentation
2. Liquor assessment (AFI and maximum pool depth)
3. Placental assessment.



August 2013

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>	



August 2013

Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Biometry</p> <p>Awareness of the various lies and presentations</p> <p>Fetal growth</p> <ul style="list-style-type: none"> • Physiology • Pathology <ul style="list-style-type: none"> - Maternal - Placental - Fetal <p>Fetal biometry</p> <ul style="list-style-type: none"> • Anatomical landmarks • Reference charts • Interpretation (including variability) • Calculation and value of; <ul style="list-style-type: none"> - Ratios - Estimated fetal weight 	<p>Be able to perform and interpret standard fetal measurements:</p> <ul style="list-style-type: none"> • HC (BPD) • AC • FL 	<p>Conduct scan to assess fetal size, lie and presentation to appropriate standard</p> <p>Communicate scan findings to patient and other professionals</p>	<p>Mandatory education and training sessions</p> <p>The majority of learning opportunities will encompass supervised clinical learning sessions, often within the standard clinic or ward setting (e.g. fetal lie, placental localisation in labour ward)</p> <p>Additional <i>structured</i> clinical learning sessions as required</p> <p>Personal study – Textbooks of obstetric ultrasound and relevant reviews/papers</p>	<p>OSATS:</p> <p>Fetal measurement, lie and presentation</p> <p>Log of experience</p> <p>Case based discussion</p>



August 2013

Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Amniotic fluid</p> <p>Amniotic fluid volume</p> <ul style="list-style-type: none"> • Physiology • Change with gestation • Pathology <p>Ultrasound measurement</p> <ul style="list-style-type: none"> • Subjective vs objective • Max vertical pocket / AFI • Reference charts • Interpretation (including variability) <p>Oligohydramnios</p> <ul style="list-style-type: none"> • Definition and associations <p>Polyhydramnios</p> <ul style="list-style-type: none"> • Definition and associations 	<p>Be able to perform and interpret assessment of AFV (maximum vertical pool depth and AFI) using ultrasound</p> <ul style="list-style-type: none"> • Appropriate follow up • Referral for further assessment 	<p>Conduct scan to assess amniotic fluid volume to appropriate standard</p> <p>Communicate scan findings to patient and other professionals</p>	<p>Mandatory education and training sessions</p> <p>Supervised structured clinical learning sessions</p> <p>Personal study – Textbooks of obstetric ultrasound and relevant reviews/papers</p>	<p>OSATS: Liquor assessment (AFI and maximum pool depth)</p> <p>Log of experience</p> <p>Case based discussion</p>



August 2013

Knowledge criteria	Clinical competency	Professional skills and attitudes	Training support	Evidence/ Assessment
<p>Placenta</p> <p>Ultrasound assessment of site</p> <ul style="list-style-type: none"> • Indication for Transabdominal and transvaginal ultrasound <p>Placenta praevia</p> <ul style="list-style-type: none"> • Classification • Management 	<p>Be able to perform and interpret ultrasound assessment of placental site - trans-abdominally</p> <p>To be aware of the limitations of this technique and know when to refer</p>	<p>Conduct transabdominal scan to assess placental position.</p> <p>Refer on if appropriate for TVS assessment of placenta.</p> <p>Communicate result to patient and other professionals</p>	<p>Mandatory education and training sessions</p> <p>Supervised clinical learning sessions</p> <p>Personal study – Textbooks of obstetric ultrasound and relevant reviews/papers</p> <p>Green top guideline 'Placenta praevia: diagnosis and management'</p>	<p>OSATS:</p> <p>Placental assessment</p> <p>Log of experience</p> <p>Case based discussion</p>



Module 2: Basic ultrasound assessment of fetal size, liquor and the placenta logbook						
Skill	Competence level					
	Level 1		Level 2		Level 3	
	Date	Signature	Date	Signature	Date	Signature
Safe use of US machine and use of correct settings						
Accurate measurement of BPD, HC, AC, FL						
Accurate documentation of measurements and observations, including chart plotting						
Assessment of liquor volume Measurement of AFI						
Assessment of liquor volume Measurement of MVPD						
Assessment of placental position using the trans-abdominal route						
Arranging appropriate follow up or referral						
Producing written summary and interpretation of results						
Communicating normal results to parents						
Maintains awareness of limitations of own competence						



OSATS		Each OSATS should be successfully completed for Independent Practice on 3 occasions before the module can be signed off					
Fetal measurement, lie and presentation	Date		Date		Date		
	Signature		Signature		Signature		
Liquor assessment (AFI and maximum pool depth)	Date		Date		Date		
	Signature		Signature		Signature		
Placental assessment	Date		Date		Date		
	Signature		Signature		Signature		

Training courses or sessions		
Title	Signature of subspecialty training programme supervisor	Date



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