

**Certificate in Allied Health Performed Ultrasound
(CAHPU)
Syllabus**

Extended Focussed Abdominal Scan for Trauma (E-FAST)

CAHPU Extended Focussed Abdominal Scan for Trauma (E-FAST) Syllabus

Purpose:

This unit is designed to cover the theoretical and practical curriculum for E-FAST ultrasound for Allied Health practitioners

Prerequisites:

Learners should have completed the ASUM CAHPU Physics Image Optimisation unit or accredited equivalent unit. This unit is suited to paramedics, nurses who work in emergency or trauma departments, and intensive care nurses.

Training:

Recognised either through attendance at an ASUM accredited (E-FAST) unit or equivalent.

Assessments:

Learners are required to provide evidence of satisfactory completion of training sessions, supervised ultrasound scans and documentation in a logbook.

Unit Objectives

Upon completion of the unit learners should be able to:

- Demonstrate an understanding of the appropriate anatomy, physiology and pathology.
- Effectively perform and interpret E-FAST ultrasound.
- Understand the limitations of ultrasound of the chest in trauma.
- Understand the limitations of ultrasound of the abdomen in trauma.

Unit Content

Be able to identify the following anatomy, physiology and pathology:

Abdominal views

- Liver
- Right Kidney
- Spleen
- Left Kidney
- Bladder
- Uterus

- Bowel
- Intra abdominal free fluid

Cardiac views

- Liver
- Right ventricle
- Pericardium
- Pericardial fluid

Chest views

- Lung sliding
- Pleural fluid
- Pneumothorax

Imaging the Chest

- Be able to image the pleural space via intercostal views.
- Be able to identify normal lung movement in the above views.
- Be able to identify pleural fluid in the intercostal, RUQ and LUQ views and give qualitative estimates of the amount of free fluid.
- Be able to understand the implications of the absence of normal lung movement and the finding of pleural fluid in the clinical setting.
- Understand the limitations of ultrasound of the chest in trauma.

Imaging the Pericardium

- Be able to image the pericardial space via the subcostal window and other windows such as parasternal/apical.
- Be able to identify pericardial fluid in the above view and give qualitative estimates of the amount of free fluid.
- Be able to understand the implications of the finding of pericardial fluid in the clinical setting.

Imaging the perihepatic, perisplenic and pelvic regions:

- Be able to identify free fluid in the above views
- Give qualitative estimates of the amount of free fluid
- Be able to understand the implications of the finding of free intraabdominal fluid in the clinical setting.

Teaching Methodologies

All training that include unit curriculum accredited toward the CCPU will be conducted in the following manner:

- A pre-test shall be conducted at the commencement of the training which focuses learners on the main learning points
- Each CAHPU E-FAST unit shall comprise at least 3 hours of teaching time of which at least 2 hours shall be practical teaching. Stated times do not include the physics, artefacts and basic image optimization which should be provided if delegates are new to ultrasound
- Learners will receive reference material covering the unit curriculum.
- The lectures presented should cover substantially the same material as the ones printed in this curriculum document.
- An appropriately qualified clinician will be involved in both the development and delivery of the unit and training (they do not need to be present for the full duration the training).
- The live scanning sessions for this unit shall include sufficient live patient models to ensure that each candidate has the opportunity to scan. Models will include normal subjects and patients with ascites or peritoneal dialysis patients. If the latter are unavailable, there will be at least one image interpretation station with cineloops demonstrating the appropriate pathology.
- A post-test will be conducted at the end of the training as formative assessment.

Assessment and Logbook

- Evidence of satisfactory completion of training sessions
- Evidence of assessment of competence (summative assessment) signed off by a suitably qualified assessor (DDU, Radiologist, DMU, or CCPU in relevant field). The original completed competence assessment form is to be sent to ASUM with the candidate's completed log book.
- Logbook requirements need to be completed, and logbooks need to be submitted within two years of completing accredited unit training.

Formative Assessments

- 2 E-FAST scans directly supervised by a suitably qualified assessor (see above).

Summative Assessment

- Summative assessment is to be performed by a suitably qualified assessor (see above) using the competence assessment form supplied at the end of this document (or equivalent if deemed sufficient by ASUM at their discretion).

Logbook Requirements

- Evidence of satisfactory completion of training sessions
- Logbook requirements need to be completed, and logbooks need to be submitted within

two years of completing accredited unit training.

- 25 E-FAST scans, including 5 positive [free abdominal pleural or pericardial fluid, or pneumothorax (not necessarily directly supervised but compared to gold standard)].
- Evidence of completion of logbook signed off by a suitably qualified assessor (see above).
- Those cases that involve a procedural component must be signed off by a suitable assessor who performs those procedures themselves.
- At the discretion of the ASUM CCPU/CAHPU Certification Board candidates may be allowed an alternative mechanism to meet this practical requirement.

**ASUM CCPU Competence Assessment Form
E-Fast Ultrasound**

Candidate: _____
 Assessor: _____
 Date: _____

Assessment type: Formative (feedback & teaching given during assessment for education)
 Summative (prompting allowed but teaching not given during assessment)

To pass the summative assessment, the candidate must pass all components listed

	Competent	Prompted	Fail
Prepare patient			
Position			
Informed			
Prepare Environment			
Lights dimmed if possible			
Probe & Preset Selection			
Can change transducer			
Selects appropriate transducer			
Selects appropriate preset			
Data Entry			
Enter patient details			
Image Acquisition			
Optimisation (depth, freq, focus, gain)			
RUQ			
<i>Identifies</i> Liver			
Rt Kidney			
Morrison's pouch			
Diaphragm			
Lung			
Bowel			
LUQ			
<i>Identifies</i> Spleen			
Lt Kidney			
Splenorenal recess			

	Diaphragm			
PELVIS		Competent	Prompted	Fail
<i>Identifies</i>	Bladder			
	Iliac vessels			
	Prostate / Uterus			
	Rectum			
	Scans TS & LS			

RUQ / LUQ / PELVIS				
<i>Describes</i>	Where abdominal free fluid collects			
	Where pleural fluid collects			
	Appearance of fluid			

PERICARDIUM / SUBCOSTAL				
<i>Identifies</i>	Liver			
	Right Ventricle			
	Left Ventricle			
	Septum			
	Pericardium			
<i>Describes</i>	Where pericardial fluid collects			
	Appearance of fluid			

LUNG				
<i>Identifies</i>	Rib			
	Pleura			
	Comet tail artefact & b lines (if present)			
	Sliding sign			
	Able to differentiate lung sliding & cardiac motion on left chest			
	Able to use M mode & explain its role & limitations			
<i>Describes</i>	Appearance of PTx			
	Assessment of PTx size			
	Where pleural fluid collects			

Artefacts				
	Identifies and explains the basis of common artefacts			

Record Keeping				
	Labels & stores appropriate images			
	Documents any pathology identified			

Completes report		Competent	Prompted	Fail
	<i>Each view adequate / inadequate</i>			

Documents focussed scan only
Describe findings briefly
Integrates ultrasound findings with clinical assessment & explains how the findings might change management
 Acts on incidental findings appropriately

Tell candidate they see a liver lesion and ask what they would do.

- *Mention incidental finding in report, discuss with admitting team / radiology.*
- *Recognise they are not trained to diagnose findings other than free fluid*

Machine Maintenance

Cleans / disinfects ultrasound probe
 Stores machine and probes safely and correctly

For Formative Assessment Only:

Feedback of particularly good areas: _____

Agreed actions for development _____

Examiner Signature: _____ Candidate Signature: _____

Examiner Name: _____ Candidate Name: _____

Date: _____