

**Certificate in Clinician Performed Ultrasound  
(CCPU)  
Syllabus**

**Abdominal Aortic Aneurysm  
(AAA)**

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## Abdominal Aortic Aneurysm (AAA) Syllabus

### Purpose

This unit is designed to cover the theoretical and practical curriculum for Abdominal Aortic Aneurysm (AAA).

### Prerequisites

Learners should have completed the Applied Physics in Ultrasound unit.

### Course Objectives

On completing this course learners should be able to demonstrate:

- Effective performance and interpretation of ultrasound in AAA
- An understanding of the implications of the measurement of the abdominal aorta in the clinical setting
- An understanding of the limitations of ultrasound of the abdominal aorta

### Course Content

The course will present learners with the following material:

#### Anatomy:

- Vertebral body
- Aorta including measurement of diameter (outer wall to outer wall)
- IVC and how to distinguish from the IVC
- Coeliac axis
- Superior mesenteric artery
- Splenic vein
- Bowel
- Liver
- Free fluid

#### Imaging Skills:

- Imaging the aorta between the coeliac axis and the aortic bifurcation in both transverse and longitudinal views
- Annotating the aortic images in the above views and measuring the maximal transverse diameter

#### Diagnostic Criteria:

- Understanding the implications of the measurement of the abdominal aorta in the clinical setting
- The relation between aortic diameter and risk of rupture
- Differential diagnosis of abdominal pain that can mimic aortic rupture or coexist with an incidental abdominal aortic aneurysm

### Training

- Recognised through attendance at an ASUM accredited AAA course. (Please see the website for accredited providers)
- Evidence of the satisfactory completion of training course is required for unit award.

## Teaching Methodologies for the AAA courses

All courses accredited toward the CCPU will be conducted in the following manner:

- A pre-test shall be conducted at the commencement of the course which focuses learners on the main learning points
- Each course shall comprise at least three (3) hours of teaching time of which at least one and a half (1.5) 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 course 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 the teaching of the course and will be present for at least part of the course itself.
- The live scanning sessions for this unit shall include sufficient live patient models to ensure that each candidate has the opportunity to scan (maximal candidate: tutor / machine ratio of 5:1). Models will include normal subjects and patients with appropriate pathologies.
- A post-test will be conducted at the end of the course to ensure the required learning objectives are met.

## Assessments

- Two (2) formative assessments of clinical skills, specifically related to the assessment of the abdominal aorta
- One (1) summative assessment of clinical skills, specifically related to the assessment of the abdominal aorta

All assessments are to be performed under the supervision of the Primary Clinical Supervisor using the competence assessment form supplied at the end of this document and completed on **ADULT patients ONLY**.

Please refer to section 8 of the [CCPU Regulations](#) for information regarding timing and exclusion of these assessments in the logbook.

## Logbook Requirements

- Fifteen (15) AAA scans, including three (3) positives on **ADULT patients ONLY**
- All scans must be clinically indicated
- All logbook cases must be signed off by a suitably qualified supervisor (see section 6.0 of the [CCPU Regulations](#))
- The 'Comparison with Further Imaging or Clinical Outcome' column should describe the further imaging or the final outcome of the patient. In this column, candidates must compare at least **50% of their logbook findings to further imaging**, this includes stating the imaging method and commenting on whether the further imaging confirmed, contradicted, or expanded on their findings
- At the discretion of the ASUM CCPU Certification Board candidates may be allowed an alternative mechanism to meet this practical requirement

**Please note:** All assessments and logbooks are required to be completed by the Primary Clinical supervisor as outlined in the CCPU regulations.

## Minimal Imaging Sets

The following are proposed as minimal imaging sets for focused ultrasound examinations in this CCPU unit. It is understood that in many cases more images should be recorded to fully demonstrate the abnormality. In some cases the patient's condition will not allow the full set to be obtained (e.g. in an unstable trauma patient), in which case the clinician should record whatever images are obtainable during the time available to adequately answer the clinical question without allowing the ultrasound examination to interfere with ongoing medical treatment. If local protocols recommend more images for a particular examination, then these should be adhered to.

- transverse proximal abdominal aorta
- transverse distal abdominal aorta
- longitudinal abdominal aorta
- If aneurysm present, then transverse image and longitudinal image at the point of largest diameter
- All images should have maximal diameter measurement (outer wall to outer wall).

**ASUM CCPU Competence Assessment Form  
AAA 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
<b>Prepare patient</b>				
	Position			
	Informed			
<b>Prepare Environment</b>				
	Lights dimmed if possible			
<b>Probe &amp; Preset Selection</b>				
	Can change transducer			
	Selects appropriate transducer			
	Selects appropriate preset			
<b>Data Entry</b>				
	Enter patient details			
<b>Image Acquisition</b>				
	Optimisation (depth, freq, focus, gain)			
<i>Identifies</i>	<b>Aorta trans</b>			
	Vertebral body			
	Aorta			
	IVC			
	Bowel			
	Liver			
	Trace aorta to bifurcation			
	Measures aorta accurately			
	<b>Aorta Long</b>			
	Aorta			
	IVC (distinguishes from aorta)			
<i>Describes</i>	Appearance of AAA >3cm = aneurysm			
	Appearance of thrombus			
<b>Artefacts</b>				
	Identifies & explains the basis of common artefacts			
<b>Record Keeping</b>				
	Labels & stores appropriate images			
	Documents any pathology identified			
	Completes report			

<i>Each view adequate / inadequate</i>			
<i>Aortic Measurements</i>			
<i>Documents focussed scan only</i>			
<i>Describe findings briefly</i>			
<i>Integrates ultrasound findings with clinical assessment and explains how the findings might change management</i>			

**Machine Maintenance**

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

**For Formative Assessment Only:**

Feedback of particularly good areas: \_\_\_\_\_

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Agreed actions for development \_\_\_\_\_

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Examiner Signature: \_\_\_\_\_ Candidate Signature: \_\_\_\_\_

Examiner Name: \_\_\_\_\_ Candidate Name: \_\_\_\_\_

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