

## **RCEM 2021 Curriculum Ultrasound Education & Training**

The introduction of a new 2021 RCEM curriculum has enabled changes to the PoCUS syllabus to make the process for acquiring and maintaining competencies simple, yet robust and sustainable. The purpose of this document is to address frequently asked questions of trainees and trainers.

### **Frequently Asked Questions**

#### **Why was there a need for change?**

The review of the RCEM 2015 curriculum was a requirement by the General Medical Council (GMC) by all specialties including emergency medicine. As a part of this process the Point-of-Care Ultrasound (PoCUS) education and training process was revisited in line with the latest national and international evidence, experts' recommendations, and relevant guidelines.

The vision of the latest RCEM PoCUS syllabus is to empower trainees to gain, maintain, and progress in PoCUS competencies at a steady rate at a local/regional level. The model also moves away from absolute scan numbers, a tick-box exercise, attending mandatory course(s), and the need for a one-off sign-off process. Instead, it is moving more towards a dynamic competency model that increases in complexity with interleaving, spacing, and regular education, training, and testing in line with current medical education theory. The latest PoCUS syllabus encourages every training encounter and other learning opportunities to be used as evidence to progress and maintain competency levels. Additionally, the new process relies much more on well trained, resourced and supported local and regional trainers, and a more personalised and standardised process. The new changes are recommended to be used as the blueprint for Certificate of Eligibility for Specialist Registration (CESR) and non-training emergency medicine doctors, pre-hospital specialists and allied health professionals such as Advance Clinical Practitioners, and Physician's Associates. The model allows for specific modules to be completed to entrustment level 4 in keeping with the scope of practice, and specific requirements of the individual clinician.

## What is included in the new curriculum?

### RCEM Entrustment Scale

1	Direct supervisor observation/involvement, able to provide immediate direction/ assistance
2a	Supervisor on the 'shop-floor' (e.g. ED, theatres, AMU, ICU), monitoring at regular intervals
2b	Supervisor within hospital for queries, able to provide prompt direction or assistance and trainee knows reliably when to ask for help
3	Supervisor 'on call' from home for queries, able to provide directions via phone and able to attend the bedside if required to provide direct supervision
4	Would be able to manage with no supervisor involvement (all trainees practice with a consultant taking overall clinical responsibility)

#### Additions/Amendments: -

- USG fascia iliaca compartment block (FICB)
- Extended Focused Assessment with Sonography for Trauma (eFAST) for additional assessment of the thorax for pneumothorax and hemothorax
- Focused Assessment for Free Fluid (FAFF) - Same as FAST but performed and labeled as such in non-trauma context (e.g. extended clinical assessment in suspected ruptured ectopic pregnancy)
- Ultrasound assessment of patient with clinical features of hypotension (and/or peri-arrest). Included focused basic Transthoracic Echocardiography (TTE), Lung Ultrasound (LUS).

#### Unchanged: -

- Physics/Settings/Safety/Ergonomics
- Clinical Governance & Administration
- Focused Assessment for Abdominal Aortic Aneurysm (AAA)
- Ultrasound-guided (USG) peripheral and central Intravenous (IV) access
- Echo in Life Support (ELS)
- Focused Assessment with Sonography for Trauma (FAST)

## Is PoCUS still a mandatory competency?

Yes.

## What is the assessment and progression process?

The overall assessment and progression process in PoCUS competencies are like any others, with PoCUS one aspect of Specialty Learning Outcome 6 (SLO 6) (<https://rcemcurriculum.co.uk/assessment>). In practice the assessment will be a continuous evidence gathering that is interconnected and demonstrates acquirement, maintenance and progression of competencies from ACCS to HST to CCT.

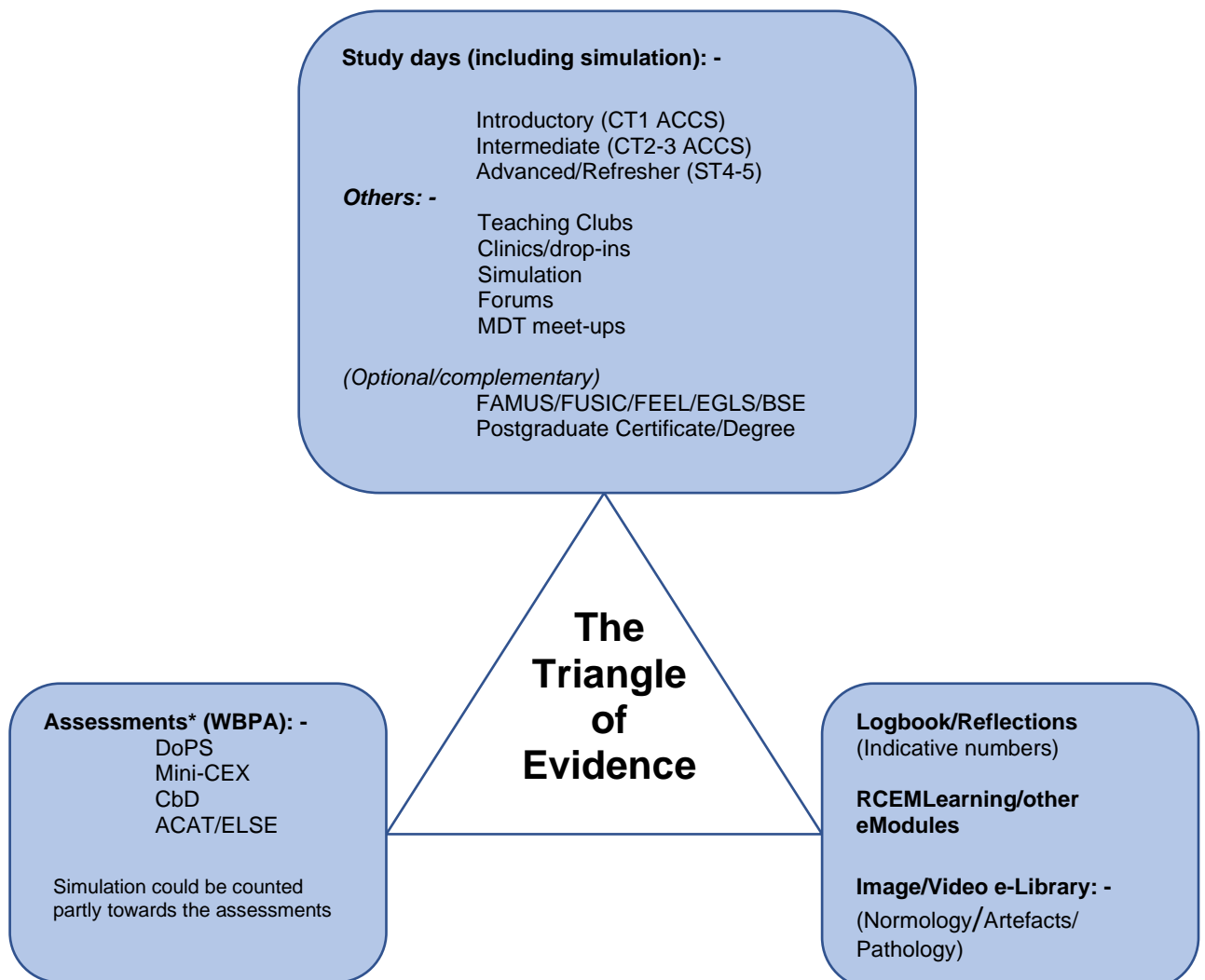
It is recommended that a well-structured PoCUS education and training programme is fully supported, funded, and resourced by the regional school of EM. The following are examples to demonstrate such a programme: -

- Study days led and supported by the PoCUS experts in the following format: -

Study Days	Introductory	Intermediate	Refresher/ Advanced
Stage	CT1 ACCS	CT2-3 ACCS	ST4-5
Content	<ul style="list-style-type: none"> <li>- Physics/Settings/ Safety/ Ergonomics</li> <li>-Clinical governance &amp; administration</li> <li>-USG IV access &amp; FICB</li> <li>-Focused assessment of AAA</li> <li>-eFAST/FAFF</li> </ul>	<ul style="list-style-type: none"> <li>-ELS, including focused basic TTE</li> <li>-LUS (DVT as an <u>optional</u> addition)</li> </ul>	<ul style="list-style-type: none"> <li>-Introductory &amp; Intermediate refresher</li> <li>-Hypotension Protocol (DVT as an <u>optional</u> addition)</li> </ul>

- Regular PoCUS breakfast/lunch clubs, clinics/drop-ins, local simulations, online/offline forums including multidisciplinary components, to name but a few recommended examples to bridge any gaps in the competency
- Regular recording and maintenance of a logbook with reflection (minimal required details and guidance will be provided as well as examples), completing e-modules and quiz, reviewing image/video library with normal and abnormal sono-anatomy, including artifacts
- The assessment of the PoCUS skills by Direct Observation of Procedural Skills (DOPS). The knowledge and behaviour i.e. the application of PoCUS in the clinical context is to be assessed as a part of workplace based placed assessments (WBPA) tools such as mini-clinical evaluation exercise (Mini-CEX), case-based discussions (CbDs), acute care assessment tools (ACAT), and extended supervised learning events (ESLE)

- The Triangle of Evidence is an example of how evidence could be continuously gathered from different sources to support assessment:-



### What assessment forms are available?

See the previous section (What is the assessment and progression process?)

Currently there are generic assessment forms (DoPS, Mini-CEX, CbD, ACAT, ELSE) on Kaizen e-portfolio that could be used for PoCUS work-based placement assessment. Specific PoCUS entrustment statement decision aid is currently being finalised for the overall assessment of skills, knowledge, and behaviours.

### **Are there still absolute number of scans and reflection?**

No.

The number of scans and reflections as outlined in the Appendix document (<https://rcemcurriculum.co.uk/wp-content/uploads/2021/04/Appendix-3-PoCUS-for-2021-RCEM-curriculum.pdf>) are only indicative. Some trainees might need less or more depending on their competency progression, and as a part the Triangle of Evidence.

### **I have achieved an entrustment scale of level 4 in diagnostic and procedural scan(s). what else do I need to do?**

It is as important to maintain PoCUS competencies as it is to acquire them. Personal professional development plan (PPDP) and continuing professional development (CPD), including keeping up-to-date logbook and reflection are recommended.

### **Is there a standard set of formats for a PoCUS logbook?**

No.

There is no current set format or specific RCEM logbook Apps. The Kaizen portfolio has a logbook for procedural skills including PoCUS. This can be used to record and reflect with a direct reference to the images/videos that are securely stored (not containing any identifiable personal information). Information regarding safe storage of images is available via the Royal College of Radiology (<https://www.rcr.ac.uk/publication/guidance-use-patient-images-obtained-part-standard-care-teaching-training-and-research>).

Kaizen e-portfolio would be the preferred platform for logbook as it links to the new 2021 RCEM curriculum syllabus, SLOs, and ARCP. However, any alternative platform that captures the minimal dataset and is in line with the national standards and regulations could be used. Logbook templates used in ED training units across the UK will be made available as an example in the latter half of 2022.

### **The final stages of achieving PoCUS competency includes integrating scans as a protocol for assessing a patient in shock, peri-arrest, or arrest. How could each entrustment statement be assessed and achieved?**

It is expected that such competency can be achieved as per any other (see the Triangle of Evidence). Such PoCUS protocols are simply putting together all the individual scans learnt during training to enhance the standard clinical assessment. Specific resources to guide and support the trainees and trainers will be made available in the latter half of 2022.

**Do I still write a formal report for each scan if I have not achieved entrustment scale 4 yet?**

Yes.

It is recommended that all the diagnostic scans are reported as per local ED guidelines. The scan reports should clearly state the operator's level of competency as per RCEM entrustment scale (level 1 to 4). It could be written either in the patient notes and/or on the PoCUS machine that could be uploaded onto PACS (picture archiving and communication systems). Guidance on scan reporting will be available in the latter half of 2022.

**Do I still need to attend a mandatory PoCUS course and finishing schools?**

No.

**I am an ACP/PA/CESR/non-trainee grade Doctor. Can I achieve PoCUS competency?**

Yes.

One aim of the RCEM PoCUS syllabus is to make the whole education and training process more accessible. The new process allows other EM clinical professionals to gain competency within their scope of practice in a structured and standardised manner. A more modular based approach is now encouraged and the same requirements for gaining competency apply.

**I have attended PoCUS courses, and/or completed a postgraduate certificate/degree. Will this count towards acquiring EM PoCUS competencies?**

Yes.

Trainees are encouraged to utilise available opportunities to develop, maintain and improve PoCUS competencies. This could be during specialty rotations during ACCS (acute medicine/critical care/anaesthetics), placements with radiology or echocardiography departments, or during educational development time. The evidence gathered from these learning encounters can be recorded with appropriate reflection on Kaizen e-portfolio to be used to assess the overall entrustment scale (See the Triangle of Evidence).

## **I am struggling to progress through entrustment scale towards achieving level 4. What can I do?**

It is important that you have an early discussion with your educational supervisor and department PoCUS lead to allow time and arrangement to be made before ARCP.

## **How will I undertake training for advanced PoCUS applications?**

The priority for trainees should be to achieve and maintain entrustment scale 4 in EM PoCUS as per RCEM 2021 curriculum. However, those trainees with high aptitude can be encouraged to undertake at least a year of structured PoCUS fellowship as an OOPT/OOPE, study for postgraduate certificate/diploma in medical ultrasound, and completed BSE level 1, amongst other PPDP and CPD.

## **There are a lot of demands on PAs as a Consultant. What are the recommendations and support to provide the new education and training changes to PoCUS?**

To ensure sustainability and quality, it is recommended that each training unit allocates a PoCUS lead with at least 0.5 dedicate PA. The lead is expected to work closely with educational and clinical supervisors as well as the college/ speciality tutor.

Additionally, as a part of the implementation of the new PoCUS syllabus, RCEM will be running Train the Trainer CPD. The aim is to update and upskill the PoCUS leads and trainers to be able to teach, train and assess trainees. The ultrasound education and training sub-committee is already working closely with the RCEMLearning team to update and create modules as well as other resources.

## **What is involved in PoCUS governance and administration in the ED?**

It is highly recommended to establish and implement governance and administration. This involves 5 main parts: -

- Governance (PoCUS lead, teaching faculty)
- Infrastructure (equipment, network, archiving, infection control)
- Administration (workflow, porting, patient records, logbook)
- Education (Structure, training, acquiring/mainlining/progressing competency)
- Quality (Clinical audit/QIP, case review, feedback, compliance)

There will be specific guidelines/resources produced to support departments and local PoCUS leads with all the above.