



Consortium for the Accreditation of Sonographic Education

Focused course accreditation decision tool

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Outlined below is the thinking that has informed development of the attached **decision tool** for focused course accreditation.

Central to all accreditation decisions must be our commitment to promoting safe and effective diagnostic ultrasound practice. Historically, focused courses have emerged in response to service need and to the lack of flexibility within some formal HEI programmes. Flexibility and innovation in course content and delivery are to be encouraged. However, this must not be at the expense of patient safety. All CASE accredited focused courses should include learning outcomes that are linked explicitly to a defined scope of practice (ScoP), include assessment of theoretical and practical elements that reflect best practice (rather than minimal competence) and are achievable within the course structure (including placement support).

Our historic definition of focused courses fails to capture the breadth and complexity of training requirements across the current and emerging diagnostic ultrasound imaging (DUI) landscape. This has led to lack of clarity for accreditors and significant misunderstanding of the role of accredited focused courses. This is particularly problematic where commissioners and service leads may have unrealistic expectations of focused courses as a 'quick fix'.

Underpinning physics and technology

In review of Focused Courses seeking CASE accreditation, a key area for consideration is the scope and depth of underpinning physics and technology theory required for safe and effective practice. The extent to which this can be delivered and assessed effectively within a Focused Course format depends not only on the technical complexity of the defined area of DUI practice but, is highly dependent on target course attendants (novice → advanced practice). For example, the learning needs of a physiotherapist advanced practitioner with no prior DUI experience would differ greatly from those of a career sonographer with limited knowledge of MSK imaging. Accreditors need to ensure that neither would be disadvantaged.

A number of existing documents identify a recommended minimum basic theoretical training for non-imaging specialists^{1,2,3}. It would be a reasonable starting point to assume that CASE requirements would be in line with these for ALL entry level practice. For applications that are technically complex, or where differential diagnosis is required, existing CASE learning outcomes (Level 6 / 7) would need to be met. (As a potential future development, these could perhaps be achieved via on-line learning with pre-course assessment.)

Where scope of practice is limited to a clearly defined area (for example, T3 obstetrics, tendon trauma, early pregnancy viability etc), delivery of theoretical science content should be tailored to reflect this. (i.e. with reference to relevant artefacts / equipment settings etc.) However, the same level 6 / 7 learning outcomes should apply where content is relevant.

It is helpful to make a clear distinction between Focused Courses that are targeted at existing ultrasound users (who have undertaken formal DUI training) and courses aimed at complete novices. This is reflected in the decision making tool.

¹https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr173_ultrasound_training_med_surg.pdf

² <http://www.efsumb.org/blog/archives/1687>

³ <https://www.rcog.org.uk/en/careers-training/specialty-training-curriculum/ultrasound-training/>

Terminology

Previous discussion documents have highlighted some of the challenges inherent in distinguishing between **modules** that sit within formal HEI validated programmes and the plethora of short and focused courses that have emerged in recent years. Terminology is frequently ambiguous and can be misleading, particularly around point of care (POC) ultrasound applications.

Interpretation of these terms used within this document is outlined below.

		Comments
Scope of practice (ScoP)	<p>This indicates the area/s of ultrasound practice for which the user:</p> <ul style="list-style-type: none"> • has received effective training • has undertaken competency assessment • is covered by indemnity <p>A helpful statement of DUI ScoP should identify limits of practice as well as assessed competencies.</p>	<p><i>It is unhelpful to consider scope of ultrasound practice in isolation from individual professional background and clinical skills.</i></p> <p><i>This has significant relevance when considering target recruitment and focused course content. (see below*)</i></p> <p><i>Clinical skill and experience will have a direct bearing on individual practitioner integration of US findings into clinical decision making. However, US specific learning outcomes should be determined by the complexity of scan rather than the seniority / professional background of the trainee.</i></p>

		Comments
Point of care ultrasound (POCUS)	<p>There seems to be reasonable consensus that POCUS refers to ultrasound examinations that are undertaken:</p> <ul style="list-style-type: none"> • outside of a conventional imaging setting • as an adjunct to clinical assessment • to inform immediate clinical decision making 	<p><i>POCUS is not necessarily an indication of who performs the scan or their professional background. Typically they are assumed to be non-imaging specialists.</i></p> <p><i>For example, early pregnancy viability scans may take place in a variety of POC settings by staff from a range of professional backgrounds including career sonographers.</i></p> <p><i>POC delivery (location) has very little direct bearing on the skill level and understanding required for safe practice (and hence required ultrasound specific course content). Quality of patient care / patient expectations are key.</i></p>
Module (level 6/7)	<p>This is a formal credit bearing unit of study that sits within a validated HEI programme.</p> <ul style="list-style-type: none"> • Number / level of credits are a reflection of the breadth of the module, level of challenge / complexity and level of autonomy expected of a learner • HEI validated modules must meet stringent QAA criteria relating to curriculum, delivery, learning hours, resources and assessment 	<p><i>Formal (credit bearing) HEI modules must meet exacting standards to ensure that students are supported to meet proposed learning outcomes.</i></p> <p><i>This distinction is not necessarily clear to course attendees and potential employers.</i></p> <p><i>Focused courses delivered outside of an HEI and non-credit bearing HEI short courses are rarely subject to this level of scrutiny.</i></p> <p><i>*HEI validated modules must specify any relevant pre- or co-requisite learning. This is not the case for focused courses that are not credit bearing (or non-HEI validated**) where recruitment may be open to applicants from a wide range of professional and educational backgrounds.</i></p>

**** CASE position re accreditation of focused courses that are not supported by HEI under review.**

Current CASE definition of focused and short courses

<p>Focused course</p>	<p>The current CASE definition of a focused course recognises that these:</p> <ul style="list-style-type: none"> • cover a specific, well-defined area of clinical practice • are developed to meet an identified service need • are designed to ensure competence in the defined area of practice • include relevant elements of theoretical science and professional issues • require trainees exiting the course to demonstrate the same level of competency as any other HCP carrying out that same examination 	<p><i>Historically, one of the key factors that have not always been addressed is the issue of who these courses are aimed at. This is reflected in the decision making tool by including consideration of prior learning / skills.</i></p>
<p>Focused University award</p>	<p>Current CASE accredited postgraduate programmes include a number of 40 credit focused awards. These are awards that:</p> <ul style="list-style-type: none"> • require students to complete 40 credits of HEI validated level 7 modules (including compulsory physics content) • require trainees to demonstrate theoretical knowledge and understanding of a focused / negotiated area of practice to the same standard as that achieved by students undertaking the module as part of a full PGCert / PGDip • lead to a focused award or validated stepping off point within an existing programme • require trainees to demonstrate the same level of competency as any other HCP carrying out that same examination 	<p><i>Students completing these HEI validated awards will exit with a 40 credit University certificate of CPD (title may vary).</i></p> <p><i>The learning outcomes / level for each module are equivalent to those achieved within a PGCert / PGDip. However, the breadth of practice will normally be limited to a single focused area.</i></p>
<p>Short course</p>	<p>Terminology is confusing. A short course (as distinct from an accredited focused course) may be defined as one that:</p> <ul style="list-style-type: none"> • Provides a theoretical and practical introduction to a defined area of DUI • Provides an expert-led opportunity for DUI skills development • includes no formal end point assessment of competence 	<p><i>To date, CASE does not accredit (or endorse) short courses.</i></p>

Focused course decision making tool

Rapid change within the DUI landscape means that a highly prescriptive approach to focused course content and learning outcomes across a wide range of applications is likely to be unhelpful. An alternative approach is the development of a decision making tool that enables accreditors (and course developers) to make a clear distinction between the requirements of non-accredited short courses, accredited focused courses, and formal credit bearing modules. The proposed tool considers:

- target course attendant (who is this course aimed at? US novice? US expert?)
- technical complexity of the scan (required underpinning science depth / breadth)
- scanning skills & interpretation of findings
- patient care and communication skills (professional issues requirements)
- breadth of proposed practice

Decision making tool definitions

Target course attendant	
Novice	No previous US experience
Intermediate	Specialist focused practitioner. Some limited scope prior DUI experience. (e.g. midwife T3 biometry, Fertility nurse follicle tracking)
Advanced	Career sonographer / expert specialist practitioner (e.g. cardiac / vascular specialist)

Technical complexity of the scan	
Core	Requires use of pre-sets / manipulation of basic controls / appreciation of image quality parameters and image artefacts relevant to target structure / safety. Highly protocol driven
Intermediate	Requires confident adaptation of equipment settings relevant to area of practice / good appreciation of image quality parameters and image artefacts / safety / appreciation of scan limitations
Advanced	Underpinning knowledge and skill level consistent with sonographer practice

Scanning skills & interpretation of findings	
Core	Protocol based. Rule-in / observation only. (Target skill is consistent with assistant practitioner level DUI practice)
Intermediate	Protocol based with some interpretation of findings. (Target skill is consistent with practitioner level DUI practice)
Advanced	Interpretation of scan and differential diagnosis. (Target skill is consistent with advanced practitioner level DUI practice)

Patient care and communication skills	
Core	Meets core proficiencies* for patient care. Limited communication of scan findings. Clear referral pathways in place.
Intermediate	Meets core proficiencies* for patient care. Some communication of scan findings and referral pathways
Advanced	Meets core proficiencies* for patient care. Communication of complex scan findings and implications for on-going care

Breadth of practice	
Core	Highly focused / single target (e.g. AAA / above knee DVT, follicle tracking)
Intermediate	Clearly defined scope of practice. A sub-set of wider scope of practice in this area. (e.g. T3 biometry, T1 dating, carotid screening)
Advanced	Broad but defined range of referrals. Comparable to wider career sonographer scope of practice in this area. (e.g. full range of early pregnancy referrals, RA screening across a range of joints, T3 obstetrics including high risk pregnancies and fetal monitoring)

*Core proficiencies for patient care. Refer to key documents (e.g. skills for health etc)

Focused course decision making tool

		Target recruitment			Accreditor Comments
		Novice	Intermediate	Advanced	
Scanning skills & interpretation of findings	Core	Focused course	Focused course	Focused course	
	Protocol based. Rule-in / observation only. (Target skill is consistent with assistant practitioner level DUI practice)				
	Intermediate	Focused course + (and targeted recruitment)	Focused course + (and targeted recruitment)	Focused course	
	Protocol based with some interpretation of findings. (Target skill is consistent with practitioner level DUI practice)				
	Advanced	HEI course recommended	HEI course recommended	Focused course (Narrow SCoP)	
	Interpretation of scan and differential diagnosis. (Target skill is consistent with advanced practitioner level DUI practice)				

		Novice	Intermediate	Advanced	Accreditor Comments
Technical complexity of the scan	Core	Focused course	Focused course	Focused course	
	Requires use of pre-sets / manipulation of basic controls / appreciation of image quality parameters and image artefacts relevant to target structure / protocol driven				
	Intermediate	Focused course + (and targeted recruitment)	Focused course + (and targeted recruitment)	Focused course	
	Requires confident adaptation of equipment settings relevant to area of practice / good appreciation of image quality parameters and image artefacts / appreciation of scan limitations				
	Advanced	HEI course recommended	HEI course recommended	Focused course (Narrow SCoP)	
	Underpinning knowledge and skill level consistent with sonographer practice				

		Novice	Intermediate	Advanced	Accreditor Comments
Patient care & communication	Core	Focused course	Focused course	Focused course	
	Meets core proficiencies* for patient care. Limited communication of scan findings. Clear referral pathways in place.				
	Intermediate	Focused course + (and targeted recruitment)	Focused course + (and targeted recruitment)	Focused course	
	Meets core proficiencies* for patient care. Some communication of scan findings and referral pathways				
	Advanced	HEI course recommended	HEI course recommended	Focused course (narrow SCoP)	
Meets core proficiencies* for patient care. Communication of complex scan findings and implications for on-going care					

		Novice	Intermediate	Advanced	Accreditor Comments
Breadth of practice	Core	Focused course	Focused course	Focused course	
	Highly focused / single target (e.g. AAA / above knee DVT, follicle tracking)				
	Intermediate	Focused course + (and targeted recruitment)	Focused course + (and targeted recruitment)	Focused course	
	Clearly defined scope of practice. A sub-set of wider scope of practice in this area. (e.g. T3 biometry, T1 dating, carotid screening)				
	Advanced	HEI course recommended	HEI course recommended	HEI course recommended	
Broad but defined range of referrals. Comparable to wider career sonographer SCoP in this area. (e.g. full range of T1 referrals, RA screening across a range of joints, T3 obs including high risk / fetal monitoring)					

Outcome definitions

- Focused course** : FC format is suitable for the proposed area of DUI practice
- Focused course +** : FC format may be suitable. Content and delivery must enable students to meet relevant CASE level 6/7 LOs
- Targeted recruitment** : FC format may be suitable if prior learning requirements are clearly defined (e.g. injection course)
- HEI course recommended** : Proposed area of training is **not** appropriate for delivery by FC format. Formal HEI award recommended.
- Narrow scope of practice** : FC format may be suitable if scope of practice is a clearly defined sub-set of wider scope of practice in this area.
(e.g. T3 biometry, T1 dating, carotids)

	Focused course format suitable for the proposed area and scope of practice.	Accreditors are confident that the proposed focused course content, format and delivery (including placement support) will enable students to meet the course learning outcomes.
	Focused course format may be suitable for the proposed area and scope of practice. Course must demonstrate clear support for trainee development of relevant knowledge and skills consistent with CASE learning outcomes (level 6 / level 7) in science / professional issues OR recruitment must be restricted to trainees who can evidence these skills from prior learning. (This may include attendees who already hold a formal DUI qualification or who have completed previous focused training.)	Accreditors are confident that the potential limitations of a focused course format may be mitigated by required co-requisite learning or restricted (targeted) recruitment. This could include other relevant prior learning requirements such as joint injection / non-medical prescribing etc. or a formal DUI qualification.)
	Proposed area of training is not appropriate for delivery by focused course format . Formal HEI award or credited module recommended.	The proposed course learning outcomes are unlikely to be met within a focused course format. Students are likely to be disadvantaged and patients may be placed at risk.

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