



Consortium for the Accreditation of Sonographic Education

Validation and Accreditation Handbook

Latest Revision March 2020

Member Organisations:

British Medical Ultrasound Society
Chartered Society of Physiotherapy
College of Podiatry
Institute of Physics and Engineering in Medicine
Society and College of Radiographers
Society for Vascular Technology of Great Britain and Ireland



The Consortium shall retain the copyright of all publications it may from time to time publish.

All matters relating to CASE activities should be directed through the CASE Co-ordinator at the following address:

The CASE Co-ordinator

C/o Institute of Physics and Engineering in Medicine

Fairmount House

230 Tadcaster Road

York

YO24 1ES

Tel: 01904 610821

Fax: 01904 612279

Email: case@ipem.ac.uk

www.case-uk.org

Contents

1	THE PURPOSE AND FUNCTIONING OF CASE	5
1.1	Introduction.....	5
1.2	Purpose of the CASE Handbook	6
1.3	Functions and Responsibilities of the CASE Committee	7
1.4	Accreditor List.....	9
2	THE VALIDATION AND ACCREDITATION PROCESS	10
2.1	Introduction.....	10
2.1.1	Accreditation Fees.....	11
2.2	Summary of the Process	11
2.3	Application for Accreditation	15
2.4	Appointment and Role of CASE Accreditors	15
2.4.1	The CASE Lead Accreditor	15
2.4.2	The CASE Co-Accreditor.....	16
2.4.3	The CASE Shadow Accreditor	17
2.5	Documentation Required.....	17
2.5.1	Information Required for a New Programme or Focused Course Validation Event	18
2.5.2	Information Required for Changes to an Accredited Programme or Focused Course	18
2.6	Guidelines for Contents of the Postgraduate Programme Document	19
2.6.1	Assistance to Progress Toward Successful Accreditation	22
2.7	The Validation Event	23
2.8	Feedback and Recommendation by Accreditors to CASE	25
2.9	CASE approval and length of accreditation	25
2.9.1	Summary List for Entry and Retention onto the Public CASE Directory ..	26
2.10	Renewal of Accreditation.....	26
3	FOCUSED COURSES.....	28
3.1	Introduction.....	28
3.2	The Accreditation Process.....	29
3.2.1	Application for Accreditation	30
3.2.2	Validation and CASE Accreditation	31
3.3	Course Dimensions of Clinical Experience.....	31
3.4	Accreditation Fees for Focused Courses	32
3.4.1	Education and Training Providers with CASE-accredited Postgraduate Programmes.....	32
3.4.2	Education and Training Providers with NO CASE-accredited Postgraduate Programmes.....	32
4	CASE CRITERIA FOR SUCCESSFUL ACCREDITATION.....	33
4.1	Introduction.....	33
4.2	Scope of Validation	33
4.3	Programme or Course Content	34
4.3.1	Core Topic Areas	34
4.3.2	Specific Clinical Areas	35
4.3.3	Negotiated Learning / Focused Practice / Specialist Skills Modules	37
4.3.4	Theory-only Clinical Modules	37

4.3.5	Clinical Combination Modules	37
4.3.6	Focused Courses	38
4.4	Programme, Course and Module Learning Outcomes	38
4.4.1	Focused Course Outcomes.....	39
4.5	Theoretical and Clinical Assessments.....	39
4.6	Programme Teams.....	40
4.7	Academic Learning Environment.....	41
4.8	Clinical Skills Placements.....	41
4.9	Practice Educators and Assessors.....	42
5	THE MANAGEMENT OF CLINICAL TRAINING AND ASSESSMENT OF COMPETENCE.....	43
5.1	Introduction.....	43
5.2	Clinical Department Accreditation	44
5.2.1	Learning Contract.....	45
5.3	Clinical Mentors and Assessors	45
5.3.1	Mentor / Assessor Training.....	46
5.4	Clinical Learning Dimensions/Experience	47
5.5	Formative Assessments	47
5.6	Summative Assessments	47
5.7	Use of Simulators	54
6	GUIDANCE NOTES FOR ACCREDITORS AND VALIDATION EVENT PANEL MEMBERS.....	55
6.1	Aims	55
6.2	Objectives.....	55
6.3	The Programme or Focused Course	56
6.3.1	Rationale	56
6.3.2	Aims and Outcomes	56
6.3.3	Admission Policy	56
6.3.4	Structure.....	57
6.3.5	Learning and Teaching Strategy	58
6.3.6	Academic Assessment Strategy.....	59
6.3.7	Clinical Assessment Strategy	60
6.3.8	Student Support and Resources	61
6.3.9	Programme or Course Management.....	62
7	PROGRAMME OR COURSE MONITORING	64
7.1	Introduction.....	64
7.2	Postgraduate Programmes.....	64
7.3	Focused Courses	64
7.4	Changes to Programmes/Focused Courses.....	64
	GLOSSARY OF TERMS	65
	APPENDIX 1 - Member Organisations of CASE.....	70
	APPENDIX 2 - Accreditation by CoR and CASE.....	71
	ACKNOWLEDGEMENTS	72
	Document Revisions and Amendments	73

1 THE PURPOSE AND FUNCTIONING OF CASE

1.1 Introduction

The Consortium for the Accreditation of Sonographic Education (CASE) was formed in 1993. It consists of a number of member organisations (Appendix 1) drawn together by a common desire to ensure that the education and training of sonographers in the United Kingdom is delivered at an appropriate level to ensure that those completing programmes or courses achieve a standard of competency to practise as professional practitioners.

The primary role of the Consortium is to accredit high quality training programmes and focused courses that promote best ultrasound practice and ensure that ultrasound practitioners are safe and competent to practise, whilst taking into account informed views of service needs.

In 2015 the Consortium agreed the following four principles should be adhered to with respect to scanning practice and ultrasound education:

1. Reporting should **not** be separated from scanning;
2. Scanning is a 'dynamic' investigation in which the acquisition of suitable images and assessment of them is entirely operator-dependent at the time of the scan. Deficiencies in acquisition cannot be rectified by involving a more skilled practitioner at a later stage. Assessment and interpretation of saved images is recognised as sub-optimal practice although, as with all image interpretation, dual reporting can be helpful in increasing specificity;
3. The risk of patient harm and consequent litigation against any healthcare organisation providing a poor-quality service is very high and therefore the need for competence at the point of scanning is paramount;
4. Workforce modelling and the development of innovative training routes to meet the demand for sonography services should demonstrate increased efficiency of provision and effectiveness in delivery of diagnosis and treatment to patients.

The Consortium is constituted under a Memorandum of Agreement.

Personal accreditation of an individual's ultrasound practice is not a process that falls within the remit of CASE. Appendix 2 shows the applications that will be considered by CASE. Please visit the following web-pages for information regarding the Society and College of Radiographers accreditation process for Advanced and Consultant Practitioners:

<http://www.sor.org/career-progression/advanced-practitioners/advanced-practitioner-accreditation>

<http://www.sor.org/career-progression/consultants/consultant-practitioner-accreditation>

The strategic direction and policy of CASE are decided by the following member organisations which currently make up the Consortium:

- British Medical Ultrasound Society
- Chartered Society of Physiotherapy
- College of Podiatry
- College of Radiographers
- Institute of Physics and Engineering in Medicine
- Society for Vascular Technology of Great Britain and Ireland

Each Consortium Member Organisation will normally nominate three appropriately qualified representatives from amongst its own membership to serve on the CASE Committee, with two out of the three attending each meeting.

1.2 Purpose of the CASE Handbook

This handbook has been published to assist all those involved in the provision of high quality, outcome-based, ultrasound education and training during the development, delivery and review of their programmes and courses.

In particular it may be of benefit to the following:

- Academic staff in Higher Education Institutions (HEIs) developing and delivering ultrasound education and training;
- Any agency which has an interest in commissioning, managing or funding ultrasound education and training;

- Those clinical departments which are, or intend to be, associated with the clinical education component of ultrasound programmes and focused courses;
- Those individuals nominated by CASE to act as advisors and/or accreditors at validation and accreditation events;
- CASE, its Member Organisations and their representatives and those who may be called upon to implement CASE procedures.

1.3 Functions and Responsibilities of the CASE Committee

The CASE Committee is responsible for implementing CASE policy as decided by the CASE Consortium.

The CASE Committee normally meets three times a year to review, discuss and further the provision of ultrasound education in the United Kingdom and to approve those programmes and focused courses seeking CASE accreditation or re-accreditation.

The CASE Committee is responsible for the following functions:

- To ensure, via a co-ordinated programme of validation and monitoring, that standards of education and training in sonography are being set, maintained and enhanced;
- To establish a co-ordinated approach to setting, maintaining and enhancing standards of education and training in sonography, ensuring that the standards are and remain approved by the Consortium;
- To undertake validation and periodic review of individual education and training programmes and focused courses in sonography, and to accredit such programmes and focused courses in the name of the Consortium;
- To maintain records of all CASE Committee meetings and any working groups it might establish from time to time;
- To operate within the financial budget as agreed and set by the Consortium;

- To provide regular reports to the Consortium of the activities and outcomes of activities undertaken by the CASE Committee.

In carrying out the above functions and in accordance with the Consortium's policy, the CASE Committee will:

- Publish a handbook on accreditation, validation and review, setting out the criteria for the accreditation of programmes and focused courses, and procedures and mechanisms for validation, review and monitoring of programmes and focused courses;
- Maintain a register of trained and approved accreditors;
- Maintain a directory of programmes and focused courses which are accredited by the CASE Committee on behalf of the Consortium, contingent upon on-going payment of the relevant fees and upon engagement with the periodic monitoring process;
- Appoint accreditors to undertake the evaluation of individual programmes and focused courses to be accredited and to receive their reports;
- Organise a training update day annually which all accreditors should attend at least once every three years. These interactive meetings are designed primarily to provide a means of direct communication between the ultrasound education and training providers and CASE. Individuals with an interest in sonographic education and training are also welcome to attend;
- Undertake an annual monitoring review of accredited programmes and focused courses and collate the data for appropriate dissemination;
- Keep its activity under review and report back through the CASE Chair and the CASE Coordinator to the Consortium.

1.4 Accreditor List

Accreditors are normally nominated by the Member Organisations or they may nominate themselves. All self-nominations to become an Accreditor must be approved by CASE. Nominees should have current expertise in the field of sonography and/or the education of sonographers, as evidenced in a CV. Further details and an application form to become an accreditor are available on the CASE website.

CASE maintains a list of approved accreditors along with details relating to their areas of speciality.

Newly appointed accreditors will normally shadow the accreditation process to gain experience prior to undertaking the role of a co-accreditor and are strongly advised to attend an accreditor training/update day.

2 THE VALIDATION AND ACCREDITATION PROCESS

2.1 Introduction

This Chapter goes through the full validation and accreditation process from applying for accreditation through to achieving accreditation and renewal. (Please see the flowchart in Appendix 2 for information on how approval and accreditation requests made to CoR and CASE are managed). Chapters 4 and 5 cover the detail of what is needed within a programme or course to achieve successful accreditation. Chapter 6 provides guidance to Accreditors in evaluating a programme for accreditation and directs attention to areas where programmes have previously failed or had conditions imposed upon them

A **Full Programme** is a course that consists of a number of related modules that, when complete, leads to a named academic award or awards. A **Focused Course** is a short course that covers a specific, well-defined area of clinical practice. The accreditation process for focused courses varies in some aspects which are covered in Chapter 3. Otherwise the accreditation process for a focused course follows the same path as that for a full programme.

Accreditation will only be given to a programme or focused course that incorporates the assessment of clinical competency skills within its portfolio.

CASE has, up until July 2017, accredited clinical ultrasound education and training programmes that have been at Master's degree level. With the agreement of the member organisations CASE now has the flexibility it requires to evaluate emerging pathways and proposals for clinical ultrasound education and training and to accredit them when appropriate. These pathways could for example include undergraduate courses and degree apprenticeships.

CASE will normally accredit a programme for a period not exceeding six years. Shorter periods of accreditation, not less than two years, may be awarded in certain circumstances, especially in relation to focused courses, new programmes or where a new postgraduate pathway has been introduced into a current programme.

As the granting of accreditation following a validation/revalidation event comes from CASE Committee, institutions and course organisers may wish to consider the timing of CASE meetings when identifying a date suitable for the validation/revalidation event. These are published on the CASE website and can be obtained from the CASE Co-ordinator.

CASE will, if appropriate, conjointly with Higher Education Institutions or Course Faculties:

- consider all postgraduate programmes and focused courses which include the assessment of clinical ultrasound skills;
- periodically review such programmes and focused courses;
- receive proposals for major changes to those programmes and focused courses already accredited and consider these changes within the framework of the validation arrangements existing between the Institutions, course organisers and CASE.

CASE, in fulfilment of its obligations to monitor and maintain standards, will require all Institutions to review the programme or focused course annually according to their own quality and standards procedures.

2.1.1 Accreditation Fees

CASE fees cover professional and administrative charges in relation to accreditation and on-going review.

Accreditation is subject to the following fees:

- An initial one-off fee the first time a new education and training provider engages with CASE;
- Payment of an annual fee for the programme/course to be maintained on the public CASE Directory of Accredited Courses;
- Payment of the accreditors' expenses incurred whilst attending validation/revalidation events and interim reviews.

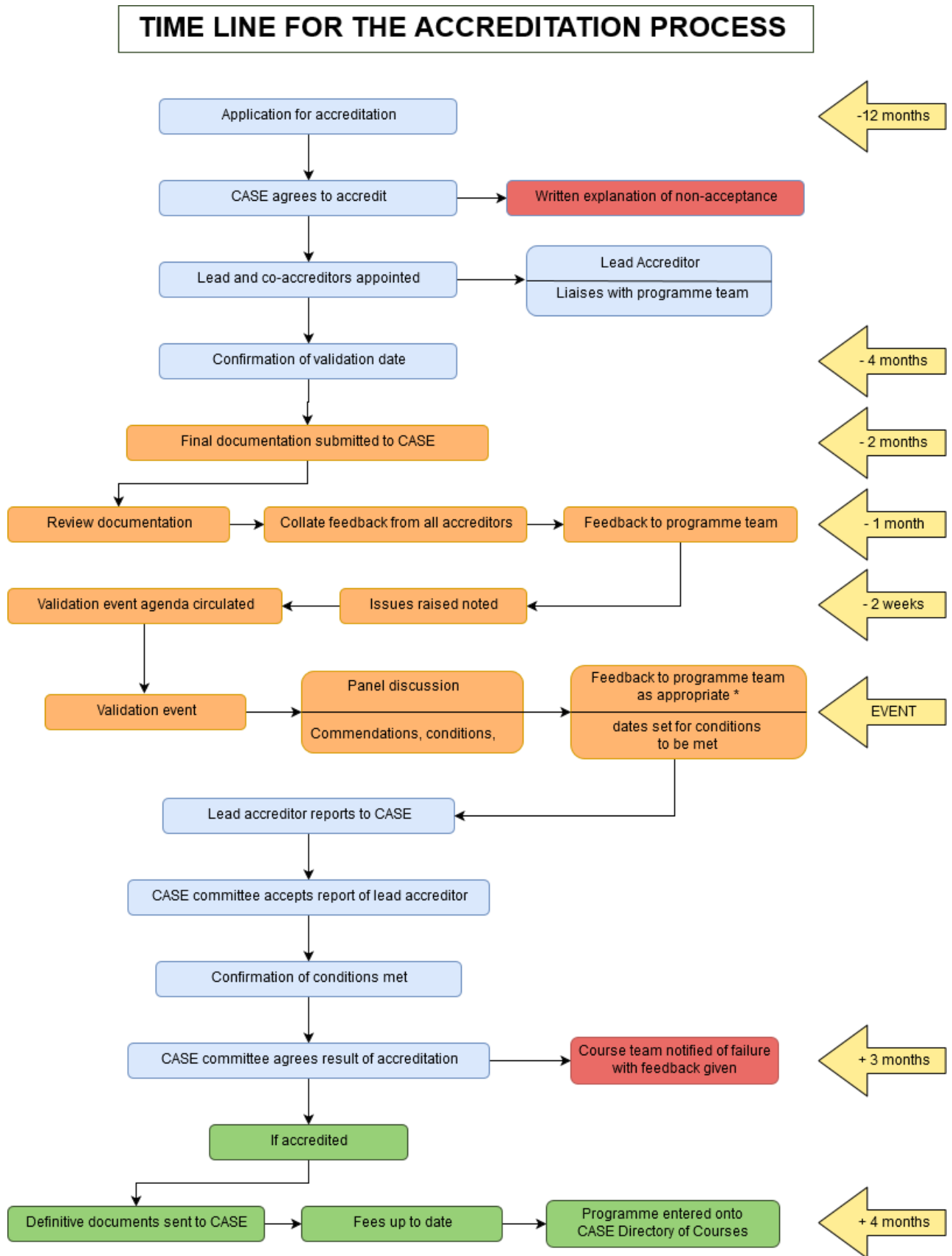
The current fees in force may be found on the CASE website.

2.2 Summary of the Process

Institutions which propose to develop a new programme/focused course, make substantive changes to an approved programme/focused course, or review an accredited programme/focused course will be expected to contact the CASE Co-ordinator twelve months

prior to the intended validation or review date. The timeline of events is shown in Figure 1 and detailed in Table 1.

Figure 1: Timeline for the Accreditation Process



* Feedback may be given at the event or afterwards depending on circumstances; new /complex programmes may require consultation with CASE Committee first

Table 1: Timeline of Actions Required for an Accreditation

Time	Action
12 months prior to anticipated event	Institution informs CASE of intention to seek accreditation using CURRENT APPLICATION FORM from the CASE website CASE appoints a Lead Accreditor to manage the validation with the Institution
4 months prior to anticipated event	Institution confirms event date with CASE
2 months prior to event	Institution sends final programme / course documentation as follows: <ul style="list-style-type: none"> • electronic copy to the CASE Co-ordinator • hard copies to the Lead Accreditor, Co-accreditor(s) and Shadow Accreditor
1 month prior to event	Issues raised by the accreditors are made available prior to the event
Validation Event	Attended by Lead Accreditor and a Co-accreditor
Within 1 week after event	Headline report / meeting minutes received from the HEI outlining major issues
Within 1 month after event	Full written report (to include the issues raised by the CASE Accreditors) from the Panel including the conditions and recommendations issued CASE independent report on a specific proforma from the Lead Accreditor (signed by Co-accreditor) submitted to CASE Co-ordinator
No later than 3 months after event	Documentation addressing conditions and recommendations submitted by programme team to the Panel and CASE Lead Accreditor
CASE meeting after event	Lead Accreditor submits report for consideration by CASE Committee Institution formally notified of outcome of CASE accreditation by letter from the Chair.

NOTE: Failure to comply with this timetable may result in delays to accreditation.

2.3 Application for Accreditation

12 months before a validation/revalidation event is anticipated/due the Institution needs to apply to CASE, using the appropriate form, to indicate that they wish to seek accreditation for their programme/focused course. The current forms are available on the CASE website.

NOTE: Only the current form from the website should be used for applications.

If CASE accepts the application, CASE accreditors will be appointed to manage the accreditation. Where the application is not accepted, an explanation will be provided to the applicant. In this situation, CASE may be able to provide advice to enable the course team to re-configure the course to meet the CASE criteria for entry into the accreditation process (see Chapter 3). While it is not in the interests of the programme/focused course or CASE to allow a proposal to remain unaccredited, CASE retains the right not to proceed with consideration of submissions that are deemed unsuitable. For example, some proposed focused courses have been declined for being too broad in subject matter or for inadequate practical training and assessment.

2.4 Appointment and Role of CASE Accreditors

The CASE Co-ordinator will inform the programme or course leader of the names and contact details of the Lead and Co-accreditor(s) as soon as possible after their appointment.

IMPORTANT: Further correspondence relating to the accreditation application should be directed to the Lead Accreditor, not to the CASE Office.

2.4.1 The CASE Lead Accreditor

The Lead Accreditor will be familiar with educational and training procedures and will have extensive experience of the CASE accreditation process. The Lead Accreditor is responsible for ensuring that all CASE procedures are implemented and will:

- ensure familiarity with CASE, institution and programme/course documentation relevant to the event;
- request additional documentation from the Institution or programme/course organisers;

- ensure all nominated accreditors have received and reviewed the documents and reports;
- request and receive a critical review from all nominated accreditors;
- have input to and approve the final validation/revalidation event agenda;
- provide feedback to the course organisers, ahead of the event, regarding any questions or concerns;
- receive all questions to CASE posed by the Institution and course faculty prior to, and at the event, and delegate them where appropriate;
- provide feedback to the course organisers after the event and monitor implementation of conditions;
- provide a written report, using the relevant proforma, on the event at the next CASE meeting.

The Lead Accreditor, will normally act as an advisor to the programme/course team, **and will contact the programme/course team and the other accreditors as early as possible following appointment.** The Lead Accreditor may advise the team on matters and aspects of the programme/course content which relate to CASE accreditation. Any specific matter on which the programme/course team require advice should be raised when submitting the application form.

2.4.2 The CASE Co-Accreditor

CASE co-accreditors are normally experienced ultrasound practitioners and can be either from an academic or a clinical background. They have, together with the Lead Accreditor, a joint responsibility for ensuring that all CASE procedures are implemented. CASE normally appoints a maximum of two representatives from the list of nominated accreditors to act with the Lead Accreditor to examine the programme/course documentation prior to the event.

The expertise of each appointed co-accreditor normally reflects the content of the clinical-specific modules or focused course clinical topic offered for accreditation, and complements

that of the Lead Accreditor. One of the co-accreditors, together with the Lead Accreditor, will serve on the joint panel at the validation event. The Co-accreditor will:

- ensure familiarity with the CASE documentation relevant to the event;
- liaise with the Lead Accreditor on event agenda items and ensure that all of the documents and reports have been received;
- submit a critical review on the documentation to the Lead Accreditor no less than four weeks prior to the event;
- attend the event if requested and participate in discussions as delegated by the Lead Accreditor;
- liaise with the Lead Accreditor regarding the post-event documentation.

In the case of a focused course accreditation, two accreditors (a Lead Accreditor and a Co-accreditor) will normally be appointed.

2.4.3 The CASE Shadow Accreditor

To ensure a continuing supply of suitably trained accreditors, newly appointed accreditors will be appointed to shadow CASE procedures during a specific validation/revalidation process. They will contribute to every stage of the process apart from participating in the actual validation event discussions. This is to ensure quality of the procedures.

A shadow accreditor will normally participate in a minimum of two events prior to being selected for a Co-accreditor role.

2.5 Documentation Required

For all documentation listed below, the CASE Coordinator should be supplied with an electronic version and the Lead Accreditor, Co-accreditor(s) and Shadow Accreditor should have hard copies sent directly to them.

2.5.1 Information Required for a New Programme or Focused Course Validation Event

The information required will, as a minimum, include:

- a definitive Programme or Focused Course Document;
- evidence of institution and/or service approval (if appropriate) to develop and deliver the Programme or Focused Course to reflect current service provision;
- evidence from stakeholders of a service need to train sonographers (if appropriate);
- evidence of support for student funding (where appropriate);
- evidence of clinical support for the clinical skills-based training.

2.5.2 Information Required for Changes to an Accredited Programme or Focused Course

Where changes to a programme or course are desired, an application form for CASE approval of changes should be submitted to the CASE Coordinator. This is available on the CASE website. These applications will be considered by the CASE Committee and will be either approved by the Committee or will have accreditors assigned to look at the application in more detail. In the case of minor amendments an email may be sent to CASE Coordinator for information and/or advice.

NOTE: Only the current form from the website should be used.

CASE recommends that where a **major** change is required, such as:

- a re-design of clinical training
- the substitution of an entire assessment
- the addition of new curriculum material
- an entire new module
- a re-modelling of the delivery pattern such as
 - blended learning
 - learning delivered at another educational or training site
- new programme leader
- external examiner appointments,

CASE must be informed as soon as possible. A decision made concerning a visit or request for additional, explanatory documentation will be taken by the most recent Lead Accreditor or other appropriate person.

Information that may be required for a review of major changes may include:

- relevant background information that has led to the substantive changes (institutional plans, service changes or new provision, professional policy) including a written rationale for the changes;
- details of the proposal for change which may include information related to the syllabus, teaching and learning methods, assessment strategy, resources, curriculum vitae.

Where such changes are relatively *minor*, such as:

- timetabling issues
- university calendar modifications
- changes to university regulations
- amalgamation of educational Schools or Faculties,

these should be incorporated into the Programme or Focused Course documentation immediately and identified clearly in the next CASE monitoring exercise. They must also be referred to specifically at the next re-accreditation event.

2.6 Guidelines for Contents of the Postgraduate Programme Document

CASE recognises that each Institution will have its own method and style of presenting the relevant information, defined by local practice, for a programme validation or revalidation event. However, although it is becoming increasingly the custom to provide this in electronic format, CASE will require paper copies of all relevant documentation to be posted to the CASE Lead and Co-accreditors, including any Shadow Accreditor. In addition, an electronic version should be sent to the CASE Coordinator. This documentation must be supplied two months prior to the validation event to facilitate the process for the accreditors. In the event of additional documentation being needed, the Lead Accreditor will make direct contact with the Institution or course faculty.

CASE reserves the right to return any documentation to the Programme or Course Leader that is not fit for the purpose of providing information for the validation/revalidation event.

NOTE: This may delay the accreditation of the programme.

Information that may be included in the pack of programme documentation is identified in Table 2. This list is for guidance purposes only and is not a prescriptive catalogue of mandatory information. The issues that CASE accreditors will particularly focus on to validate the Programme or Focused Course for CASE accreditation are indicated in Chapter 6.

Table 2: Information which may be included in a Programme Document

<p>General Information</p> <ul style="list-style-type: none"> • Institution • Faculty or Department or School • Socio-geographic outline 	<p>Programme Organisation</p> <ul style="list-style-type: none"> • Management • Financing, including budget proposals • Arrangements for staff to discuss educational policy • Arrangements for consultation between academic, clinical staff and students
<p>Programme Review (if appropriate)</p>	<p>Programme Philosophy</p> <ul style="list-style-type: none"> • Rationale • Aims and Outcomes
<p>Programme Syllabus</p> <ul style="list-style-type: none"> • Rationale, aims, objectives, learning outcomes • Content • Timetables for each level • Integration of academic education with clinical practice 	<p>Programme Specification Document</p>
<p>Learning Methods</p> <ul style="list-style-type: none"> • Rationale • Core teaching, team approaches • Clinical education 	<p>Module Specification Documents</p> <ul style="list-style-type: none"> • Mapping exercise to include a programme flow chart • Mapping exercise to learning outcomes
<p>Assessments</p>	<p>Students</p>

<ul style="list-style-type: none"> • Rationale for methods • Types of academic and clinical assessment. • Marking and assessment criteria • Schedule and weighting • Examples • Regulations 	<ul style="list-style-type: none"> • Funding • Admissions procedure • Health/welfare facilities available • Personal tutoring system • Equality and Diversity policy • Handbooks
<p>Clinical Education</p> <ul style="list-style-type: none"> • Aims and objectives • Length of clinical placement (hours) • Availability and range of clinical placements • Criteria for approving clinical placements • Quality assurance procedure • Criteria for the selection and appointment of practice educators and assessors • Teaching and learning resources, including personnel • Ultrasound and ancillary equipment • Practice Handbooks 	<p>Staffing</p> <ul style="list-style-type: none"> • Programme team • Number of WTE staff in post • Curriculum Vitae • Staff/student ratio
<p>Course Resource Provision</p> <ul style="list-style-type: none"> • Teaching/lecturing/practical provision • Library facilities • Technological resources • Clinical and laboratory facilities • I.T. provision 	<p>Support Mechanisms for Students + Staff</p>
<p>Regulations</p>	<p>Internal Course Monitoring</p> <ul style="list-style-type: none"> • Arrangements for programme review

	<ul style="list-style-type: none"> • Evidence of appropriate involvement of academic and clinical staff • Quality assurance processes
--	---

2.6.1 Assistance to Progress Toward Successful Accreditation

In reviewing the programme or course documentation, and in discussion with the Programme Lead, CASE is able to provide advice to help the programme team fine tune the documentation prior to the validation event so as to avoid unnecessary failure at the event. Such advice would usually relate to the learning and clinical training aspects of the course, as they affect the course outcomes assessed by CASE. This would normally be directed through the Lead Accreditor and may follow advice from the CASE Committee.

Mandatory requirements which need to be included and/or specified in a CASE-accredited programme are shown in Table 3, whilst those recommended by CASE as ‘good practice’ are shown in Table 4.

Table 3: Mandatory Requirements to be included / specified

<ul style="list-style-type: none"> • Programme Leader or Deputy must hold an ultrasound qualification
<ul style="list-style-type: none"> • Entry requirements and selection process
<ul style="list-style-type: none"> • Induction for new students
<ul style="list-style-type: none"> • Induction and ongoing training for clinical supervisors/mentors
<ul style="list-style-type: none"> • Appropriately trained and qualified clinical supervisors/mentors
<ul style="list-style-type: none"> • An appropriate amount of time spent in clinical practice for the duration of the module, as students need to gain experience in addition to clinical competency <p><i>Please Note: CASE is working on providing guidelines and milestones for clinical practice to help accreditors determine what can be considered “appropriate” and these will be published soon. If you have any questions in the meantime, please refer them to a member of the CASE Committee</i></p>
<ul style="list-style-type: none"> • The number of formative assessments and the proforma used for this process
<ul style="list-style-type: none"> • The proforma used for summative assessments
<ul style="list-style-type: none"> • Summative assessments to be Pass/Fail only

<ul style="list-style-type: none"> • The use of an External Assessor/External Moderator/Independent Assessor in relation to summative clinical assessments
<ul style="list-style-type: none"> • Robust science and technology of ultrasound content embedded into the programme/course
<ul style="list-style-type: none"> • Confirmation that the External Examiner appointed to the programme/course holds an appropriate ultrasound qualification

Table 4: Recommended as ‘good practice’ to be included / specified

<ul style="list-style-type: none"> • completion of a logbook showing all assisted and unassisted cases completed by the student during training; this should not be formally assessed but should include expected milestones and be an aspect of monitoring student progress
<ul style="list-style-type: none"> • clinical modules to make up at least 50% of the overall award
<ul style="list-style-type: none"> • Recognition of the fact that the Education and Training Institution and the Clinical Placement Site have a duty of care to ensure that training lists are managed in such a way as to minimize risks to health and safety, such as repetitive strain injury

2.7 The Validation Event

CASE recognises that there is no common pattern for validation, revalidation and accreditation; however, a consensus is likely to be reached over the agenda, discussion points, conditions and recommendations, and the event report. CASE will seek to work with institutions during the process to ensure that a successful and timely outcome is achieved.

The event is generally an opportunity for the programme or course team to offer evidence in support of the curriculum, delivery and assessments to a panel of experts.

A programme validation may be a single event, or the medical ultrasound pathway may be embedded within a suite of similar pathways or programmes such that a multiple event is required. This sometimes complex method of validation, revalidation and accreditation is becoming increasingly popular and may include panel members from the Institution, along with the CASE accreditors and members of other external bodies. A secretariat to minute proceedings is normally arranged by the Faculty.

Institutions and course organisers are advised that CASE may require individual sessions with the programme team or course faculty and other smaller group meetings which may include:

- Interviews with other staff, including practice educators and managers;
- Interviews with students (past or present) where appropriate.

CASE may also request visits to:

- Specific buildings and facilities associated with the programme e.g. skills laboratories, student resource centres;
- Clinical placements where appropriate.

There will normally be a plenary session of the validation panel at the end of the event at which the commendations, conditions and recommendations will be made clear to the programme or course team, including the dates and mechanisms by which these will be met. The decision regarding accreditation and re-accreditation taken by the CASE accreditors at the event is a recommendation only. The CASE representatives who attend the validation event are **not** empowered to give an immediate decision regarding formal accreditation of the programme by CASE.

A draft copy of the event agenda should be circulated prior to the event for comment and agreement. An illustrative agenda is shown in Table 5 below:

Table 5: Example timetable of a validation event

Indicative Order of Events	
Timings other than the start are approximate	
9.00am	Private CASE panel meeting with external stakeholders/clinical placement leads
9.30am	Private CASE panel meeting with current students (if revalidation)
10.00am	Welcome and introductions
10.10am	Brief presentation from the programme team
10.20am	Dean's report to the panel
10.30am	Question and answer discussion between team and panel
12.30pm	Lunch break
13.30pm	Private CASE panel meeting to determine conditions/recommendations/commendations
14.00pm	Discussion of proposals between team and panel
15.00pm	Panel to agree outcome and conditions/recommendations
15.30pm	Panel feedback to the programme team (including identification of areas of good and best practice)
16.00pm	Close

2.8 Feedback and Recommendation by Accreditors to CASE

Following the validation event, it is the responsibility of the Institution to produce a written report of the proceedings stating the outcome of the meeting, including the conditions and recommendations where applicable, and to circulate this to all of the members of the Panel.

The CASE Lead Accreditor will submit to the CASE Co-ordinator an independent report, on a specific pro-forma, for consideration and action by CASE at its next Committee meeting. This report will also be sent to the Course Team. In the case of a successful accreditation, the CASE Lead Accreditor will also give the CASE Committee advice on the duration of the accreditation period.

CASE Committee will review the report of the Lead Accreditor at its next meeting, at which time it will formally agree the outcome of the validation and accreditation. In exceptional circumstances, CASE Committee will carry out this duty virtually in order to minimise any significant delay in the accreditation process.

Following a decision by CASE, and after all conditions have been met, a letter detailing the accreditation outcome is sent to the Programme or Course Leader.

Following successful accreditation, a final definitive set of programme documentation, suitably amended if necessary, must be forwarded to the CASE Office. This should be in electronic format.

2.9 CASE approval and length of accreditation

The decision of the CASE Committee will be to formally approve full, conditional or unsuccessful CASE accreditation.

Full accreditation will be for an agreed period of time of not more than 6 years and not less than 2 years, as guided by the Lead Accreditor, taking into account the institution's own time scales. It is subject to annual programme/course monitoring and payment of CASE fees. The Programme/Focused Course will be entered onto the public CASE Directory of Accredited Courses.

Conditional accreditation may be given; for example, where a programme/focused course review is required at some future point in time. The programme/focused course will be entered

onto the public CASE Directory of Accredited Courses, as above, subject to the conditions being met.

Unsuccessful accreditation will result where, following validation, the programme/focused course fails to meet the CASE criteria for accreditation. Where appropriate, CASE will work with the institution in an advisory capacity to enable the programme/focused course to be resubmitted to CASE for accreditation.

2.9.1 Summary List for Entry and Retention onto the Public CASE Directory

- Successful accreditation or re-accreditation;
- Receipt of relevant programme documentation;
- Meeting any future conditions set or interim reviews required;
- Receipt of satisfactory Annual Programme Monitoring Reports (see Chapter 5);
- Payment of the annual fees and all accreditors' expenses.

2.10 Renewal of Accreditation

At the end of the period of accreditation a programme/focused course must be re-validated to remain on the public CASE Directory of Accredited Courses. Twelve months before a re-accreditation is due and a validation event is anticipated, the programme/course leader needs to apply to CASE using the appropriate form, to indicate that they wish to seek re-accreditation for their programme/focused course. The forms are available on the CASE website. The re-accreditation process will then proceed as indicated above.

NOTE: Only the current form from the website should be used.

In exceptional circumstances a short extension of a current accreditation period may be granted by CASE; for example, to fit in with an institution's internal review period.

Changes that have occurred and been implemented since the last validation should be documented and specifically referred to at the re-validation event. (See 2.5.2 for handling occasional changes to a programme/focused course).

The information required for programme re-validation or focused course review will include:

- A critical appraisal of current delivery to include the views of the programme or course team, current and past students and trainees, practice educators or mentors, clinical assessors, service managers and other stakeholders;
- Any intermediate changes that have been made since the original validation and accreditation, a critical appraisal of the major programme or course changes that are proposed for the re-validation and any plans for future developments;
- Reports from the external examiners (if applicable) covering the validation and accreditation period, with statements of any action taken in response;
- Reports from CASE monitoring procedures (if applicable) covering the validation and accreditation period, with statements of any action taken in response;
- Information on current and proposed additional resources (including library and technological resources), and staff changes;
- Current Curriculum Vitae for all members of the programme/course team;
- A full set of revised programme/course documentation as specified in 2.5.1 and 2.6.

3 FOCUSED COURSES

3.1 Introduction

Focused Courses are normally developed as stand-alone courses to address a particular service delivery need in a specific limited area of clinical practice in order to ensure that, on completion of training, the practitioner is competent and safe to undertake, interpret, analyse and report focused ultrasound examinations in that defined area of clinical practice. Trainees completing a short focused course will be expected to achieve competence in a clearly defined set of skills that are a subset of those covered by a full CASE accredited module in that area.

CASE will only accredit such courses where the training and education includes practical clinical skills development for which a formal assessment of competence to practice is included, meeting the requirements stipulated in the CASE handbook. Furthermore, focused courses will only be accredited if the scope of practice proposed is distinct and less than that of a clinical module within a PG medical ultrasound programme and includes the pertinent physics, technology and professional issues to ensure safe practice.

Any Focused Courses accredited by CASE must be in line with the same clinical practice and academic standards as found in any full programme that CASE accredits. This is to ensure a national standard across all training programmes and courses, albeit in a well-defined and restricted area of practice.

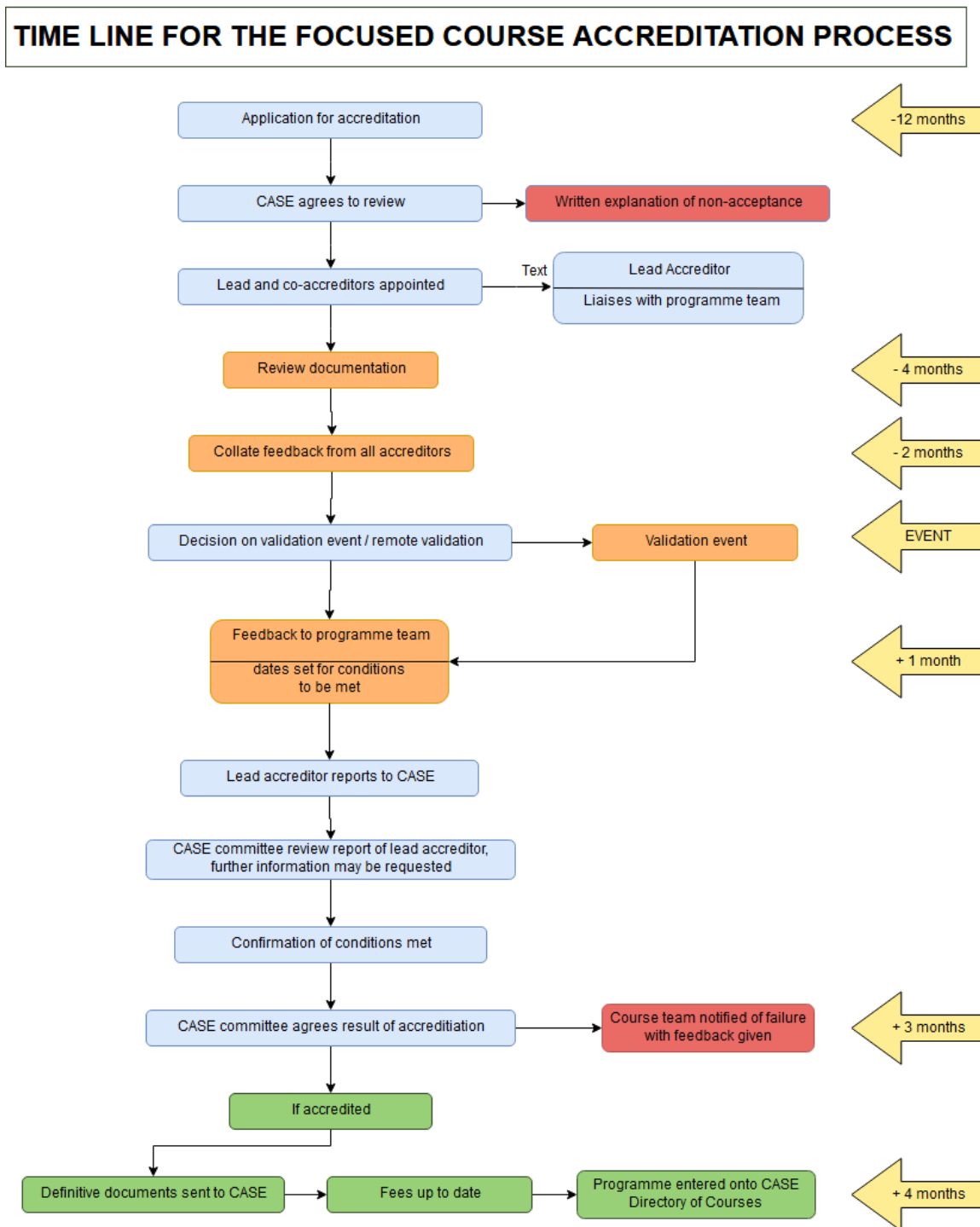
CASE will need to be assured at the time of accreditation that the title evidenced on the course competency certificate, issued on successful completion, reflects the defined area of clinical competency and is otherwise fit for purpose. It is also appropriate for institutions to formally award credits; for example, 20 Level 7 credits, to students upon successful completion of a Focused Course. If a student wishes to import these credits, via APCL/RPCL into an MSc they are doing elsewhere, the decision to allow this via a process of 'general credit recognition' will rest with that University however a Focused Course should not be imported into a full ultrasound programme

Theory-based short courses lasting from one to a few days are not eligible for CASE accreditation, but may apply directly for individual professional body endorsement (see Appendix 2).

3.2 The Accreditation Process

The accreditation process for a Focused Course is broadly similar to that of a full programme (given in chapter 2) and only differs in some details. In particular, there may not be a formal validation event, and a visit to the institution/organisation offering the course may not always be necessary as it may be sufficient to conduct the approval process by electronic communication alone. The timeline of events is shown below:

Figure 2: Timeline for the Focused Course Accreditation Process



3.2.1 Application for Accreditation

The host institution/course leader needs to apply to CASE, using the appropriate form, to indicate that they wish to seek accreditation for their Focused Course. The form is available on the CASE website.

NOTE: Only the current form from the website should be used.

Focused Course documentation is to be sent to CASE and a decision as to whether the course satisfied the conditions for CASE validation and accreditation will be made at the next CASE committee meeting. Where a Focused Course does not meet the criteria for entry into the accreditation process, an explanation will be given and advice may be offered to enable a successful application to be made. For example, this may be because the proposed course is too broad in terms of subject matter or lacks practical clinical competency training and assessment.

Course documentation should include similar information to that listed for full programmes in Table 2, as appropriate for a Focused Course. In particular, it should give clear detail regarding the following:

- Does the course title reflect the defined scope of the course?
- What is the specialist area to be covered and are there any limitations to the scope of practice?
- The duration of the course;
- The amount of face-to-face contact time between the course team and the students (this must be a minimum equivalent of 4 days; however, where blended e-learning is included there must be a minimum of 2 full contact days);
- The content of the teaching given and any assessment of theory used;
- How the core topics of science and technology and professional issues will be covered;
- What practical training is given;

- How the students will gain practical experience;
- Who will supervise students' practice training throughout the course
- How the students are to be assessed to ensure competence to practice (Chapter 4);
- The competency certificate issued on successful completion of the course.

3.2.2 Validation and CASE Accreditation

CASE will appoint a Lead Accreditor and a Co-accreditor. The Lead Accreditor will contact the Focused Course Leader and liaise with them to agree a way to proceed. In particular, they will indicate whether a formal meeting/event is required and what form it should take.

Student and stakeholder feedback may be required even if no formal meeting occurs. In the case of a formal validation meeting, a secretariat to minute proceedings is normally arranged by the course faculty. Accreditor expenses are paid by the course faculty.

Following any formal meeting/event, and after reviewing the documentation, the Lead Accreditor, on behalf of the accreditors, will prepare a formal report on a specific proforma for consideration and action by CASE Committee at its next meeting.

CASE will then inform the Course Leader of the result of the accreditation process as detailed in section 2.9 or request further information, as required.

CASE accreditation for a Focused Course will normally be for 3 years.

3.3 Course Dimensions of Clinical Experience

The emphasis needs to be on demonstration of competence. The number of scans completed and period of supervision needed to achieve this may vary considerably between different areas of practice and individual prior experience. For example, there may be some specialist areas where ultrasound is used infrequently (eg. ultrasound guided injection) and a flexible or extended period of training may be required. Self-audit against an agreed standard is recommended to provide evidence that learning outcomes have been met.

As the clinical supervision and experience required is dependent on the scope of intended learning outcomes, CASE will consider each individual course to ensure that these are achievable within the proposed clinical practice arrangements.

3.4 Accreditation Fees for Focused Courses

The current fees in force may be found on the CASE website.

3.4.1 Education and Training Providers with CASE-accredited Postgraduate Programmes

If an education and training provider has a current CASE-accredited postgraduate ultrasound programme, they are entitled to apply for CASE accreditation for up to **three focused courses** at no extra cost.

If an education and training provider wishes to apply for accreditation of further focused courses (over and above three), there will be an annual retention fee for each additional accredited focused course to remain on the public CASE Directory of Accredited Courses.

In addition if a site visit is required, all costs shall be met by the education and training provider.

3.4.2 Education and Training Providers with NO CASE-accredited Postgraduate Programmes

Where an education and training provider has no other current programmes or courses accredited with CASE, the following fees will apply:

- A non-returnable administration fee, including the first year's annual retention fee, charged on initial application;
- An annual retention fee for the accredited focused course to remain on the public CASE Directory of Accredited Courses.

In addition, if a site visit is required, all costs shall be met by the education and training provider.

4 CASE CRITERIA FOR SUCCESSFUL ACCREDITATION

4.1 Introduction

CASE supports innovation in development and flexibility of delivery for all medical ultrasound related educational programmes and focused courses, actively encouraging the utilisation of an outcome-based approach throughout the process. Educational and training paradigms promote the philosophy of student-centred learning supported by appropriate and robust tutor provision, in addition to the traditional method of lecture-based delivery. This places the responsibility of learning jointly on the student and the tutor. Material may also be presented to the student by electronic means as blended learning. Simulation of scanning is increasingly being used as a teaching and assessment tool and is to be encouraged, as it can reduce the time required to achieve competent scanning whilst helping to monitor student progress. During the validation and accreditation process, CASE accreditors will expect to see documented evidence that supports this mixed approach both in the classroom and workplace.

CASE will look to university teams, programme leaders and focused course leaders to embed originality of thought and evidence-based practice within the curricula, mode of delivery and assessment process, whilst complying with current international, national and local legislation, healthcare policy and professional guidelines, to ensure that practitioners meet the required standards of practice. In particular, CASE will support those programmes and focused courses that offer learning in such a way as to suit the workforce for whom they are developed, whilst ensuring that a competency to practise outcome is paramount.

4.2 Scope of Validation

There are seven areas of particular importance which accreditors, programme and focused course leaders, and clinical teams will need to consider in order to secure CASE accreditation. These are:

- programme or course learning material;
- programme or course and module learning outcomes;
- theoretical and clinical assessments;
- academic and clinical teaching teams;

- academic learning environment;
- clinical skills placements;
- quality assurance procedures.

The contents of this section are appropriate for both accreditation and re-accreditation and should be suitably adapted for accreditation or re-accreditation of a focused course.

CASE will expect information relating to the above areas to be embedded appropriately throughout the programme documentation and used as a basis for discussion at the validation event. Clinical education and training, and the assessment of clinical competency is dealt with in detail in Chapter 5.

The following comments are general; if there are any individual queries related to a specific programme, they should be referred to the CASE Lead Accreditor appointed as the advisor.

4.3 Programme or Course Content

CASE will consider the programme or course learning material in terms of core and specific clinical topic areas. Although the names of comparative modules and learning components may vary between institutions and faculties, the learning material will contain essential knowledge that is common to all.

CASE requires the institution or faculty to clearly evidence that the programme or course seeking accreditation delivers this core material effectively. CASE accreditors will expect to see evidence in the documentation of learning theory related to practice in all modules where appropriate.

4.3.1 Core Topic Areas

Core topics are considered by CASE to be pre-requisites to the awarding of any certificate of clinical competency. These topics may be taken concurrently with clinical modules where the award is to be given simultaneously or must be stated as pre-requisites to any subsequent clinical modules undertaken.

For purposes of accreditation, CASE divides the core material into two components:

- **Science and Technology**

Typical subject areas may include: Principles of Ultrasonic Imaging, Ultrasound and its Propagation in Tissue, Image Generation, Ultrasound Artifacts, Principles of Doppler Ultrasound, Development of Ultrasound Imaging Technology, Equipment Choice and Manipulation, Equipment Appraisal and Evaluation, Image Recording, Ultrasound Bio-effects, Quality Assurance. These are to be linked to image acquisition/optimisation and interpretation.

- **Professional Studies**

Typical subject areas may include: Communication, Patient Care and Advocacy, Health and Safety (including ergonomics and infection control), Image Appraisal, Clinical Reporting, Judgement and Decision-Making, Clinical Audit, Evidence-based Practice and Clinical Governance, National and Local Healthcare Policies and Ethics, Promoting Health and Wellbeing, Self-development and Critical Appraisal Skills.

In order to fit within a locally-designed modular programme or pathway, the professional studies learning material may be more conveniently embedded within either the science and technology or appropriate clinical modules.

4.3.2 Specific Clinical Areas

All CASE accredited programmes and courses are required to identify specific clinical topics in addition to the core material, such as obstetric, pelvic, abdominal, superficial organs, musculoskeletal, vascular, breast, cardiac or trauma ultrasound. The following will need to be included in relation to each clinical topic:

- Applied anatomy, physiology and patho-physiology;
- Scanning methods and techniques, including relevant measurements;
- Power Doppler, colour flow mapping and spectral analysis;
- Use and applications of ultrasound contrast agents;
- Ultrasound appearances, including normal anomalous appearances and the appearances of common pathological processes;
- Clinical reporting;
- The contribution ultrasound makes to the clinical management of patients;
- The role and value of complementary imaging.

Typical subject areas within specific module content are as follows:

- **General Medical**

Applied Abdominal, Pelvic and Systemic Anatomy and Patho-physiology, Scanning Methods, Techniques and Measurements for Pelvic and General Medical Ultrasound (to include superficial organs), Ultrasound appearances of the Gastrointestinal System, Male and Female Genitourinary System, Retroperitoneal Structures, Superficial Structures, Common Gynaecological Pathology, Ultrasound-Directed Procedures in Ultrasound Practice, Principles of Doppler Imaging, Use and Applications of Ultrasound Contrast Agents, Complementary Imaging.

- **Gynaecology**

Applied Abdominal and Pelvic Anatomy and Patho-physiology, Embryology and Physiology of the Reproductive Process, Scanning Methods, Techniques and Measurements for Pelvic and Renal Ultrasound, Ultrasound appearances of the Female Genitourinary System, Gynaecological Pathology, Ultrasound-Directed Procedures in Ultrasound Practice, Principles of Doppler Imaging, Use and Applications of Ultrasound Contrast Agents, Complementary Imaging.

- **Obstetric**

Applied Abdominal and Pelvic Anatomy and Patho-physiology, Embryology and Physiology of the Reproductive Process, Prenatal Screening and Counselling, Scanning Methods, Techniques and Measurements for Obstetric, Pelvic and Renal Ultrasound, Fetal Development, Placental Morphology and Function, Fetal Biometry, Growth Profiles and Well-Being, Principles of Doppler Imaging, Antenatal Screening, Early Pregnancy Problems, Multiple Pregnancy, Fetal Anomalies, Ultrasound Directed Procedures in Obstetric Practice.

- **Vascular**

Applied Vascular Abdominal, Pelvic and Systemic Anatomy and Patho-physiology, Principles of Continuous and Pulsed Wave Doppler Imaging, Principles of Power Doppler and Colour Flow Mapping, Volume Flow Measurements, Haemodynamics, Scanning Methods, Techniques and Measurements for Vascular Ultrasound, Clinical Applications (lower limb vasculature, upper limb vasculature, abdominal applications, intra- and extra-cranial carotid vasculature), Complementary Imaging.

- **Musculoskeletal**

Applied musculoskeletal Anatomy and Patho-physiology, Scanning Methods, Techniques and Measurements, Principles of Power Doppler and Colour Flow Mapping, Ultrasound

Appearances, including Normal Anomalous Appearances and the Appearances of Common Pathological Processes, Complementary Imaging.

Please note that this list is not exhaustive.

4.3.3 Negotiated Learning / Focused Practice / Specialist Skills Modules

These, mostly independent modules where students negotiate their academic, clinical and personal learning through a specific study contract, are increasingly being embedded in postgraduate ultrasound programmes. They provide critical learning opportunities for those students whose practice falls outside the scope of a defined clinical ultrasound practice module. CASE will consider for accreditation an independent practice module as described above. However, in order for it to align with other clinical modules in the programme, it must include a robust competency assessment scheme that matches, wherever possible, that integrated into the named clinical ultrasound modules associated with the same pathway or programme.

4.3.4 Theory-only Clinical Modules

CASE may consider the inclusion of a theory-only ultrasound module in a programme on condition that student clinical competency, in the pathway in which it is embedded, can be evidenced by an additional clinical ultrasound module that reflects the accredited award.

4.3.5 Clinical Combination Modules

CASE may consider a clinical ultrasound module combination, such as obstetrics and gynaecology, in a CASE-accredited pathway. **Where a module contains two major clinical components, consideration should be given to dividing the module.** Normally, such a module will have been developed by programme teams following a specific request from service and will contain a basic learning and skills element related to the minor clinical component. Programme teams should ensure that the rationale is robust, the learning outcomes match the dual nature of the module profile, the assessments are developed to reflect the learning experience and that the balance between the subject areas is appropriate. The module credits for combination modules will need to be appropriate for the content.

Accreditors will spend time during the accreditation process to ensure that this type of module aligns with others in the programme and that any duplicate learning and assessment that may

arise during students' module selection or progression can be dealt with appropriately by the programme team.

4.3.6 Focused Courses

The content of a focused course will be on a discrete, specified area of clinical practice (see Chapter 3) such as:

- Neonatal hips;
- Hands, Wrists and Feet in Rheumatology;
- Third Trimester Surveillance.

4.4 Programme, Course and Module Learning Outcomes

The primary programme or course outcome assessed by CASE is competency to practice which, according to the CASE principles, includes the ability to both perform a scan and to produce a definitive clinical report.

An institution seeking CASE accreditation must satisfy CASE that the learning outcomes for the programme, course or modules can be satisfactorily achieved through its delivery of the learning material and associated assessments.

CASE recognises that M-level learning outcomes have equal standing across the three stages of a postgraduate programme. However, where an advanced practice route has been identified in the documentation, the learning outcomes should reflect this additional depth and breadth of student learning.

Module and programme learning outcomes should be mapped to the relevant CASE learning outcomes in the document *Standards for Sonographic Education*, to show how these outcomes are met within the programme and to the National Occupation Standards (NOS).

- For academic level 7 programmes for existing health care professionals, mapping should be for the level 7 learning outcomes and ultrasound imaging NOS.
- For academic level 6 programmes and direct entry level 7 programmes, mapping should be to the level 6 learning outcomes and ultrasound NOS plus the 'Standards of Proficiency for a Sonographer' (based on HCPC standards).
- For programmes with modules that include interventional procedures, mapping to the interventional NOS should also be completed:

The CASE learning outcomes, NOS mapping documents and 'Standards of Proficiency' are all available on the CASE website here: www.case-uk.org/information/apply-for-accreditation/standards-learning-outcomes-mapping

For each module, the course documentation should show how these outcomes are to be assessed.

4.4.1 Focused Course Outcomes

See Chapter 3.

4.5 Theoretical and Clinical Assessments

An institution seeking CASE accreditation must satisfy CASE that the assessment strategies applied to the academic and clinical components are sufficiently rigorous to enable successful students and trainees to demonstrate such skills as appropriate to a competent practitioner.

These strategies must be appropriately matched to and measure the learning outcomes for each module or course element. CASE advises that the assessment methods used for the academic components of each module reflect relevant aspects of the clinical or professional role of the competent practitioner and, wherever possible, are linked to practice.

The fundamental aim of CASE is to ensure that on completion of a period of learning, the exiting students or trainees are clinically competent to undertake ultrasound examinations and are professionally responsible for their own workload. In order to demonstrate competency, **clinical assessment must be undertaken in all CASE accredited programmes and courses**. Clinical competency is covered in detail in Chapter 5.

CASE requires that clinical assessments must carry a **Pass or Fail criterion**, where Pass is a minimum standard that is equivalent to safe practice or baseline clinical competence. The assessment methods employed must be clearly identified and the rationale appropriately justified by the programme team or course faculty.

Examples of typical theoretical methods of assessment may include objective, structured tests (OST, OSE or OSCE), multiple choice questions, case studies, essays, presentations, posters, portfolios, unseen examinations, open book examinations and on-line discussions.

Peer or group assessment may be used where appropriate. Electronic assessment will be considered; however, it must demonstrate an academic rigour for Master's programmes. CASE does **not** permit the use of compensation or condonement in relation to failed modules: all modules must be passed.

Simulation can be offered as a response to the challenge of ensuring consistent learning in clinical practice and has become increasingly attractive as an alternative education strategy in many settings. It has a role in formative learning and feedback but should not be viewed as a replacement for the assessment of clinical skills in a real clinical setting.

4.6 Programme Teams

In this context, the programme team is taken to mean those individuals who contribute to the delivery of the academic and clinical components of the programme and to its quality assurance.

CASE requires that the Programme or Course Leader, or Deputy, holds a postgraduate ultrasound qualification or equivalent and has at least two years appropriate clinical experience.

CASE requires that the course must have an adequate level of expertise and staffing to cover the anticipated student numbers.

CASE also strongly recommends that:

- At least one other member of the academic teaching team holds an ultrasound qualification and has had relevant clinical experience;
- At least one member of the academic teaching team holds an ultrasound qualification and has an honorary or permanent contract with a local department in order to be able to regularly participate in ultrasound sessions;
- At least one member of the teaching team is qualified to deliver the science and technology component of the programme;
- There is clear evidence of co-operation strategies between the academic and clinical teaching teams;

- There is a defined strategy for the selection, training and provision of support mechanisms for practice educators and mentors;
- The external/independent assessor is familiar with medical ultrasound practice in a wide range of healthcare situations, the practitioners who access the programmes and course and its methods of clinical training and assessment;
- Teaching teams, practice educators and mentors provide suitable evidence of continuing professional development as defined by appropriate professional bodies.

4.7 Academic Learning Environment

The academic learning environment may refer to an actual or virtual classroom. CASE strongly recommends that:

- Suitable accommodation is available for the delivery of lectures, skills workshops, group sessions, tutorials for the anticipated maximum number of students;
- Suitable audio-visual and information technology equipment is available for delivery of an illustrative ultrasound programme both at the learning centre and clinical placements;
- A virtual learning environment is available for those students who are remote from the classroom environment;
- Library facilities are available to support ultrasound students working at postgraduate level.

4.8 Clinical Skills Placements

A Clinical Skills Placement is a provider of high quality medical ultrasound education and training which undertakes medical ultrasound examinations that reflect the current evidence base and are appropriate to the student's academic and clinical needs. Its staff, in particular those who undertake the role of practice educator, clinical supervisor or mentor to support students and trainees, must be committed to the training programme's philosophy.

Suitability of clinical departments for clinical skills training is covered in Chapter 5.

4.9 Practice Educators and Assessors

Ultrasound practitioners in the placements identified as **Practice Educators**, **Clinical Supervisor** or **Mentors** are responsible for the delivery, integration and quality of the clinical learning episodes and for ensuring that they match those of the theoretical knowledge acquired in the classroom. It is expected that the practice educator, clinical supervisor or mentor will work closely with the student, facilitating the clinical training and ensuring that learning outcomes and competencies are achieved within the designated timeframe. This is covered in detail in Chapter 5.

Clinical Training Co-ordinators may be identified as relevant to some programmes to ensure that equivalent standards of clinical experience are offered to all students irrespective of their clinical skills placement.

CASE strongly recommends that **Learning Contracts** or **Agreements** between the institution or course faculty and students' employers are in place, in support of the clinical training to be undertaken by the placement unit. In addition, it is recommended that institutions or course faculties retain a register of appropriately trained staff participating in the mentoring and assessment scheme.

CASE will expect, both in documentation and on programmed visits to placements, a clear demonstration of the quality, nature and range of clinical facilities, including equipment and staffing, necessary to support the students/trainees in their clinical education and practice. For example, CASE will expect to see evidence that students/trainees are able to take part in appropriate, dedicated training lists in the early stages of their learning.

5 THE MANAGEMENT OF CLINICAL TRAINING AND ASSESSMENT OF COMPETENCE

5.1 Introduction

All CASE accredited postgraduate programmes and focused courses require a robust and transparent process for monitoring and assessment of a student or trainee's clinical progress and competence. These guidelines are designed to ensure patient safety, maintain professional standards and ensure equitable provision of academic awards. They indicate the areas the accreditors will examine to validate the achievement of clinical competence in scanning practice. Details of how the programme of focused course will implement all aspects of clinical training and assessment of competence should therefore be given in the course documentation.

The terminology for the different roles varies amongst professional groups. The terms below are to assist in defining each role, although there may be some overlap between roles in practice.

Training Co-ordinator / Practice Educator

A named individual, within the clinical department, who co-ordinates the training of a student or trainee to ensure there is a supportive environment in which they can develop a wide range of clinical skills. This individual may not necessarily be involved in the clinical training of a student or trainee but, in addition to their co-ordination role, acts in a supportive, pastoral capacity for the student or trainee and provides support for the clinical supervisor/mentor. This role may also include involvement in the accreditation process of the clinical department by the training centre.

Clinical Supervisor / Mentor

A named individual, qualified in the area of practice being studied by the student or trainee, who leads on the clinical teaching of a student or trainee. The named clinical supervisor/mentor liaises with the education provider on issues relating to training.

Internal Assessor

An individual from within the clinical department who assesses a student or trainee's progress, their readiness to undertake formative assessments and advises on the timing of the summative assessment. This could also be the clinical supervisor/mentor. The individual would take an active role in the clinical teaching and formal assessment of a student or trainee.

External assessor / external moderator/independent assessor

An external, independent person who ensures unbiased clinical assessments are carried out. This person may be known as a verifier by some training centres. This would normally be an individual nominated by the training provider, working independently from the student or trainee's clinical placement, who moderates the final summative competency assessment with the internal assessor.

Student/Trainee

An individual who is learning ultrasound in any capacity i.e. someone learning ultrasound for the first time, or extending their scope of ultrasound practice.

Education/Training provider

A higher educational institution or training course/centre providing a CASE accredited focused course or full postgraduate ultrasound programme.

5.2 Clinical Department Accreditation

CASE expects education and training providers to have a robust mechanism in place to assess the clinical placement site prior to enrolling a student or trainee onto the programme or course, and to monitor the site throughout the duration of the course. This is to ensure that students or trainees will have access to:

- A wide range of examinations relevant to the area of clinical practice;
- Protected, supervised hands-on scanning time for the duration of the award (no unsupervised scanning/decision making);
- An appropriate number of suitably qualified staff to support them within the department;
- Tutoring from experienced professionals;
- A supportive learning environment;
- A clinical learning experience supported by evidence-based protocols and adhering to national recommendations where these exist.

Clinical placement decisions should be based on the ability of the clinical site to provide appropriate evidence-based training. In order to achieve appropriate clinical competency a

student or trainee needs access to quality, hands-on supervised experience within the clinical department (see Section 5.4). Students/trainees **must not** scan unsupervised until they have achieved formal clinical competency i.e. have successfully completed their summative assessments and received their ratified award for that clinical area of practice (see Section 5.6). Dedicated training lists should, therefore, be incorporated into the department's work schedule, in order to provide protected, quality "hands-on" time for student learning with the clinical supervisor/mentor.

The guidance on minimum requirements and mentoring will vary for modules or focused courses relating to point of care ultrasound, due to the variability of workload, the nature of the examinations and the opportunities to undertake scans. Education and training providers will need to provide robust evidence of progress monitoring, the quality of mentoring and clinical competency assessment during the accreditation process. In order to ensure patient safety, no student/trainee should be taking full responsibility for an ultrasound examination until they have received their ratified award. Supervision is essential during the learning process for any CASE accredited award.

5.2.1 Learning Contract

CASE strongly recommends that a Learning Contract or Agreement is set up between the education/training provider and the student's/trainee's employer in which the employer agrees to provide clinical training and assessment in accordance with the accredited procedures and expectations of the course or programme. The education and training provider will be responsible for providing mentor and assessor training.

5.3 Clinical Mentors and Assessors

Clinical Supervisor/Mentor

Each student/trainee should be allocated a named clinical supervisor/mentor within the clinical department. The clinical supervisor/mentor is advised to work with the trainee on a regular basis to monitor progress, provide support and liaise with the education provider. Clinical supervisors should have a wide range of experience and **must** hold a recognised qualification in the area of practice being studied by the student, unless this is a new area of practice or extended role such as interventional ultrasound or point of care ultrasound. It is advisable that the clinical supervisor/mentor has a minimum of two years current clinical experience. An enthusiasm and ability to teach are essential qualities of a good clinical supervisor/mentor, which, coupled with knowledge and expertise are as important as the length of experience.

The Internal Assessor

Prior to assessing clinical competency an internal assessor should be appointed who has current clinical experience in the area being assessed. CASE would advise a minimum of three years clinical experience for those undertaking summative clinical assessment of postgraduate programmes; however, this may be less for new techniques or evolving areas of practice.

The education and training provider should provide support and advice for the internal assessor, in addition to regular training updates.

The External Assessor/Moderator/Independent Assessor

The external assessor/moderator/independent assessor should be carefully chosen to ensure extensive experience in their field of practice, with a good knowledge of current clinical practice, and academic and clinical standards, to provide a supportive, fair and unbiased summative assessment. Regular assessor training or updates, along with clear assessment guidelines, should be used by the education and training provider to ensure consistency of assessment.

The external assessor/moderator/independent assessor should be a senior professional with appropriate experience who is able to demonstrate on-going continual professional development relevant to the areas of practice they are assessing. As the role involves ensuring appropriate standards are consistently met, it is advisable for the external assessor/moderator/independent assessor to have a minimum of three years clinical experience plus appropriate training in relation to the summative assessment process. Moderation of new external/independent assessors is advisable to ensure consistency.

5.3.1 Mentor / Assessor Training

CASE will normally expect clinical supervisors/mentors, internal and external assessors to attend training run by the education and training provider, to ensure sharing of good practice and continuing updates. The education and training provider is expected to organise such training days, and clinical supervisors and assessors should attend additional training following any major changes to the course. If on-line training is utilised, CASE will need to see evidence of this to assess the suitability for preparing the supervisor/assessor for their role, in addition to assessing the processes in place for supporting assessors, sharing of ideas and good practice.

5.4 Clinical Learning Dimensions/Experience

Managers and ultrasound practitioners have requested that the number of hours of student clinical practice should be specified in this Handbook; however, the number is difficult to quantify and can potentially have an adverse effect on student learning. The important issue is the 'first post' or 'baseline' competency of a student upon successful completion of a period of learning, which may not be of the same length of time for all students and trainees.

In respect of this concern, and to ensure that appropriate clinical time is made available for students and trainees by their employers, it is recommended that students on part-time programmes or courses spend at least **14 hours per week** undertaking supervised ultrasound examinations with their clinical supervisor/mentor for the entire duration of the learning period.

It is the responsibility of the programme team to satisfy the CASE accreditors that their proposed practice hours for clinical training are sufficient to ensure that the students' ability to achieve the clinical learning outcomes is not compromised, and that each exiting, successful student is competent to undertake those ultrasound examinations identified in their university transcript.

5.5 Formative Assessments

Formative assessment of student/trainee progress is essential in providing feedback on their strengths and weaknesses in order to demonstrate progression and to enable them to consider the feedback and make improvements to their practice prior to summative assessment.

CASE will normally expect regular formative monitoring of student/trainee progress, along with communication of this process between the education and training provider and the clinical supervisor/mentor. This will vary depending upon the nature of the programme i.e. focused course or postgraduate MSc programme. For a Postgraduate Certificate or Diploma it is recommended that formative assessment is undertaken at least every 3 months. The timing may be less for short courses and point of care training.

5.6 Summative Assessments

CASE will expect to see explicit details of the range of assessments to be carried out, with clear marking schemes available. Clinical competency assessments should ensure national competency frameworks are met.

It is anticipated that clinical training centres will use relevant, nationally-recognised criteria for the clinical assessment of abdominal, renal, pelvic and scrotal ultrasound examinations. For obstetric ultrasound modules a minimum of 3 clinical assessments, one from each trimester of pregnancy i.e. a 1st trimester, a 2nd trimester anomaly scan and a 3rd trimester fetal well-being scan are recommended. At least one clinical assessment for obstetrics and/or gynaecology must include demonstration of transvaginal scanning competency. It is recommended that summative clinical assessments should include a minimum of 3 cases in a session. For other areas of practice a rigorous assessment process should be evidenced.

To ensure rigorous and equitable assessment of student's/trainee's clinical abilities, ensure protection of the public and reduce bias, CASE expects at least one of the summative clinical assessments, for each module or clinical area, to be moderated by an external assessor/moderator who is not directly responsible for the students' training.

CASE expects clinical assessments to carry a **Pass or Fail criterion**, where Pass is a minimum standard that is equivalent to safe practice or baseline clinical competency. Unless there are accepted extenuating/mitigating circumstances, only one re-sit attempt should be offered, in line with standard academic practice. Timing of the re-sit assessment will be negotiated between the student/trainee, the clinical training site and the education and training provider, and will follow the same guidelines for moderation.

Each element of the scan will be graded as pass/fail. A pass must be achieved in all elements for each examination as an indication that the student/trainee has reached the standard required for independent practice. An example of a summative clinical assessment proforma is shown in Table 7. The format of a summative assessment will include:

- Discussion of the request prior to the patient entering the scan room;
- Observation of the examination;
- Post scan reporting and discussion;

If an examination is not completed, the student/trainee should be given an opportunity to reflect on why they were not able to visualise a particular structure and must satisfy the examiner that they understand the reason for this, along with the implications and impact on future patient management.

Table 7: Example of Summative Clinical Assessment Pro-forma

Record of Final Clinical Summative Assessment

Student's name.....

Clinical Placement.....

ModuleDate.....

To achieve a pass in each section, the student must perform at the standard required for independent practice. **A pass mark in all sections is required.** Pass ✓ Fail X

	Patient Number			
	1	2	3	4
Preparation for scan				
• Critical appraisal and correct interpretation of the request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4
• Use of all available relevant information including patient history	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4
• Preparation of the scan environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical competence	1	2	3	4
• Selection and use of equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4
• Safe scanning practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4
• Scanning technique	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Patient Care and Communication

Patient Number

1 2 3 4

- Correct patient identification

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Confirmation of patient history

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Analysis of and response to patient needs throughout the examination

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Valid consent obtained

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Clear and effective communication with the patient, carers and other healthcare professionals.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

Scan interpretation and reporting

1 2 3 4

- Correct interpretation of the scan findings

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Evaluation of the scan

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Report writing

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

1 2 3 4

- Informing the patient and further follow up

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

Patient Number

Guidance of intervention (where applicable)

- Correct use of aseptic technique

1	2	3	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Correct identification of landmarks

1	2	3	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Performed according to local protocols

1	2	3	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Appropriate after care provided

1	2	3	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall performance

PASS / FAIL

Comments

Clinical Mentor

Independent Assessor

Final Clinical Assessment

Reasons for fail

Student's name.....

Clinical Placement.....

Module

Please state the reasons for fail at this assessment:

Clinical Mentor

Independent Assessor

Student.....

Date

5.7 Use of Simulators

Simulators have a valuable role in giving the trainee exposure to specific scans and pathologies in a standardised setting, which enables the trainee to gain in confidence whilst learning to scan. Psychomotor skills can be developed in the safety of a classroom, and the trainee will be introduced to a wide range of scanning appearances to prepare them for real-life scanning. The use of simulators can never replace scanning performed in a clinical setting with patients, and should therefore only be incorporated as an adjunct during training. Simulators provide a tool for giving feedback to the trainee during formative training, and may also have a limited role within a summative assessment. This, however, should not substitute assessment in a real clinical situation that would include patient interaction, scanning, management of machine set-up and reporting.

6 GUIDANCE NOTES FOR ACCREDITORS AND VALIDATION EVENT PANEL MEMBERS

6.1 Aims

The primary aims of CASE are to secure for students and trainees a high quality educational experience and to ensure that, on completion of a pathway of learning, they are competent to undertake medical ultrasound examinations within an evidence-based environment. It also aims to stimulate curriculum development by empowering staff to evaluate their provision through the external peer review process.

6.2 Objectives

The validation and accreditation process must ensure that:

- medical ultrasound programmes and focused courses meet the requirements for the relevant award or certification and that the standards are appropriate to that award or certificate;
- the student and trainee learning experiences are of a standard appropriate and relevant to their needs and aspirations;
- resources available both in the academic and clinical environments, including staffing and equipment, within which the programme or focused course is delivered are appropriate and satisfactory;
- standards and quality of teaching in the relevant subject areas are maintained and, wherever possible, enhanced;
- standards and quality of the overall provision are maintained and, wherever possible, enhanced.

These brief notes are provided for guidance purposes only for CASE accreditors, programme and course teams and other staff at the Institutions or Faculties. They are not exhaustive and it should be recognised that a wider range of issues may lead to further probing at accreditation events to satisfy the CASE criteria for a successful outcome. They should be used in conjunction with the information in Table 2.

Included in these notes are a small number of outline questions identified in *italics* that might be used as introductions to the discussions at an event. They can also be used as a checklist prompt for accreditors during the documentation review stage.

They equally apply to postgraduate programmes and focused courses.

6.3 The Programme or Focused Course

Note: If this is a re-validation, any interim changes to the programme/focused course from the previous validation should be documented and specifically referred to at the re-validation. This information is held in the APMR database.

6.3.1 Rationale

The philosophy and rationale is appropriate for the programme or course outline.

Question

- *How does the rationale for programme/focused course development meet the needs of the ultrasound profession and service development/delivery?*

6.3.2 Aims and Outcomes

The aims are related to the purpose of the programme or focused course. The objectives are related to the capabilities and competencies the students will be expected to demonstrate on successful completion.

Example Questions

- *How will the students achieve the programme/course/module learning outcomes?*
- *How will the students evidence these outcomes in the study that they undertake?*

6.3.3 Admission Policy

The criteria for admission in relation to the learning outcomes, teaching methods and assessments, including where necessary consideration of issues relating to equal opportunities, international applications and distance learners, are likely to be the main points for discussion. In particular, the course documentation should clearly specify:

- The minimum qualifications for the course, including English language assessment for foreign students (IELTS should meet minimum standards set by HCPC or GMC);
- The Accreditation of Prior (Certificated) Learning APCL conditions;
- The pre-requisites and co-requisites for each module;
- Whether pre-entry experience in a clinical setting is required/desirable.

Example Questions

- *How might the team address the issue of no formal healthcare registration of an otherwise suitable applicant?*
- *How is the student intake compatible with the Admissions Policy?*
- *What is the attrition rate for the programme or course and has it altered since the last review?*
- *What has been the trend in pass rates and is this satisfactory?*
- *How are clinical placements chosen and assessed as being fit-for-purpose?*

6.3.4 Structure

The programme or course structure must include a rationale for the chosen approaches to learning and information on how it might integrate with other similar programmes or courses (e.g. modular structure, shared learning, blended learning, web-based delivery) for the benefit of students and the ultrasound service.

It is strongly recommended that the whole programme/course is diagrammatically mapped out to show all the pathways that are available, including any non-CASE accredited modules. Core/compulsory modules and clinical modules should be indicated as such.

The pathway map may be supplemented by examples of student progression routes and the minimum number of clinical modules needed to achieve a PgCert/PgDip must be indicated.

The content of each module should be clearly defined, particularly in relation to any clinical components. Content relating to ergonomics and repetitive strain injury risk management must be included where appropriate.

Example Questions

- *Does each module title reflect the scope of practice and the target recruitment group?*
- *Is there parity of content and assessment between individual modules?*
- *Are there overlaps in content between specific clinical modules including negotiated modules such that there is double counting of learning?*
- *Does each clinical module include clinical reporting?*
- *Has the use and role simulators been identified and justified?*
- *Have the learning outcomes for each module been mapped against the CASE learning outcomes?*

6.3.5 Learning and Teaching Strategy

Issues may be discussed in relation to:

- The relevance of the programme or course content to its title, aims and outcomes, and the appropriateness of the sequence and progression of content;
- The learning and teaching strategies proposed;
- Aspects of learning delivery;
- The feasibility of any proposals for inter-professional learning;
- The provision for clinical education and how this will be integrated into the learning model;
- Proposals for the dissertation or written project, including the approval of chosen topics and the arrangements for supervision.

Example Questions

- *How is the learning strategy appropriate for the achievement of the programme or course learning outcomes?*
- *To what extent do lectures and other forms of tutor-led presentations stimulate learning? Can it be identified in the documentation?*
- *How are students encouraged to take responsibility for their own learning?*
- *How does the programme team respond positively to student feedback?*

6.3.6 Academic Assessment Strategy

The rationale for assessment and the proposed strategy, including the assessment schedule, will be thoroughly reviewed. Specimen examples, along with the assessment and marking criteria, will be reviewed to give the panel an appreciation of the appropriateness of the strategy and whether they are valid assessments to demonstrate successful completion of the learning outcomes. CASE recommends that these examples are provided as part of the original documentation pack. Information on the regulations for unsuccessful students and the support mechanisms for further study should also be provided.

Example Questions

- *Do the assessment criteria adequately assess all the learning outcomes for the module/focused course?*
- *How does the assessment scheme match the learning outcomes of the clinical modules?*
- *Are the assessment regulations clearly and unambiguously drafted, including provision for the re-assessment of students where appropriate?*
- *What are the arrangements for the involvement of External Examiners in the assessment process?*
- *What are the arrangements for second or double marking by internal examiners and/or internal moderation across subjects?*
- *What is the assessment loading and, is there a balance of submissions across the learning period?*

- *What compensation strategy, if any, is adopted by the programme team?*

6.3.7 Clinical Assessment Strategy

The clinical assessment strategy is a key component to assuring students are competent practitioners upon completion of the programme/focused course. It is important to ensure that there is parity of clinical assessment criteria across programmes, especially at the summative stage. The following points should be clear in the documentation:

- Who does the formative and summative clinical assessments;
- The skills and qualifications mentors are expected to have;
- That the summative clinical competency assessment must be pass/fail;
- Details of the training and updates provided for clinical supervisors/mentors and assessors;
- The mechanisms for ensuring the quality of workplace education and training for students;
- Whether or not learning contracts are used between the education and training provider and the students' employers;
- The frequency of formal meetings between the clinical supervisor/mentor and student to monitor progress and feedback to the programme team;
- Details of the moderation procedure and re-sit conditions, along with the student feedback and support offered;
- Details of the formative and summative assessments, including the documents used to support these assessments;
- Details regarding the minimum supervised scanning time for each clinical module;
- The role and use of simulators, if any, in formal assessment.

Example Questions

- *What is the clinical assessment loading and, is there a balance of submissions across the learning period?*

6.3.8 Student Support and Resources

Staff to student ratios will be explored and there must be at least the minimum number of appropriately qualified staff to ensure that student learning is not compromised. This applies equally to academic, clinical and support staff. The quality of the staff, both academic and clinical, is also crucial. And the programme or course team will need to demonstrate a commitment to continuing professional development (CPD). Institutions and faculties must have policies for staff development and research to support the teaching.

The physical resources that are available to sustain students on the programme or course will need to be specified. This will include clinical equipment, skills laboratories, library services and IT provision.

Consideration will need to be given to:

- The appropriateness of the accommodation available;
- The existence of related programmes or courses and whether there is or will be competition for resources;
- The suitability of common teaching if proposed;
- The opportunities for students to mix with other students and to engage in group activities;
- The arrangements for clinical education;
- Opportunities for students to visit other clinical departments;
- The processes for obtaining student feedback and how is it used;
- The arrangements for students to communicate and share their experiences and have the feeling of being part of a group e.g. through a Blackboard discussion forum or via social media.

Example Questions

- *Are there enough ultrasound qualified staff at the Institution or faculty to support the student numbers expected on the programme or course?*
- *If learning is delivered off-campus, how do the students obtain peer support?*
- *Is this peer support adequate for successful learning?*
- *What are the arrangements for visiting student clinical placements?*
- *Is there evidence of on-going professional development at the clinical placements?*

6.3.9 Programme or Course Management

CASE will need to consider the overall workload for both students and staff. The arrangements for operational management and monitoring of the programme/course, including the provision for student representation and tutorial guidance will also be reviewed by CASE.

Example Questions

- *What system is in place for the programme/course team to receive student feedback?*
- *What strategies are in place to ensure that students are achieving their learning goals on a regular basis?*
- *How is overall programme/course feedback obtained from previous students who have successfully completed?*
- *What support is there for students who live remotely from the Institution or Faculty base?*
- *How does the programme/course take advantage of the services of the library, skills laboratory and IT department?*
- *What training and support mechanisms are in place for practice educators and assessors?*
- *How do the CPD activities of the tutors actively underpin the programme?*

- *How do the tutors from a variety of backgrounds form a balanced and cohesive team?
How do the tutors support one another?*
- *What support is available for the programme team?*

7 PROGRAMME OR COURSE MONITORING

7.1 Introduction

CASE believes that Annual Programme Monitoring and Review reports (APMRs) act as a valuable source of qualitative and quantitative information regarding the design, development, monitoring and evaluation of programmes. This evidence complements the factual information available through definitive programme or course documentation. APMR data may be used by CASE to provide an overview of standards being achieved, changing patterns of curricular provision and innovative practices.

7.2 Postgraduate Programmes

Each September, institutions are invited to send an annual report of their programme's recruitment, achievements and challenges to CASE using an electronic pro-forma.

The CASE APMR working group reviews the returns in the autumn semester and compiles an overall annual report for discussion at the spring CASE Committee meeting. The APMR Lead will contact individual institutions if any clarity or additional APMR information is required. CASE reserves the right to nominate a representative to visit institutions or course faculties to fulfil its monitoring role. Each institution will ultimately receive a letter from the CASE APMR Lead regarding the satisfactory nature of their APMR report. Receipt and approval of the APMR report will be necessary for retention on the public CASE Directory of Accredited Courses.

7.3 Focused Courses

Focused Courses are not currently part of the CASE APMR process; however, it is anticipated that a separate review and collation process will be created for these in the foreseeable future.

7.4 Changes to Programmes/Focused Courses

Changes to programmes and courses that are necessary between review periods normally need CASE approval as specified in section 2.5.2. Where approval for a change has been given by CASE, or a minor modification has been made, these should be clearly identified in the next CASE monitoring exercise return.

GLOSSARY OF TERMS

Accreditation

The recognition by CASE of a programme or course that qualifies for entry on to the public CASE Directory of Accredited Courses.

Full Accreditation

The recognition by CASE of a programme or course without any conditions.

Conditional Accreditation

The recognition by CASE of a programme or course with conditions attached that must be satisfied at some future date.

Accreditation Process

The process by which CASE recognises a programme or course as delivering the learning outcomes and clinical competences required for autonomous reporting sonographic practitioners.

Accreditor

A CASE representative undertaking the accreditation process for a given programme or course on behalf of CASE.

Lead Accreditor

The senior accreditor appointed to manage the accreditation process for a given programme or course on behalf of CASE. They will usually have an educational as well as a clinical background.

Co-Accreditor

Any other accreditor appointed to undertake the accreditation of a programme or course on behalf of CASE. They may often have specialist knowledge in relation to the course content.

Shadow Accreditor

A newly nominated accreditor who is gaining experience in the accreditation process. They will not attend the validation/revalidation event but will gain experience through reviewing the programme or course documentation and working virtually with the Lead and Co-Accreditor.

APMR

Annual Programme Monitoring and Review – the process of data collection and review from all accredited programmes and courses.

CASE

The Consortium for the Accreditation of Sonographic Education. The consortium consists of a group of member organisations who are professional bodies with a clinical interest in sonographic practice.

CASE Chair

The Chairperson of the CASE Committee (NB. This is different to the Chair of the member organisations' group).

CASE Committee

The operational body of CASE that implements CASE policy and strategy as determined by the CASE Consortium including approving all applications and accreditations. It consists of representatives from the member organisations.

CASE Coordinator

The person responsible for the day to day running of CASE, based at the CASE Office.

CASE Consortium

The Consortium is comprised of the Member Organisations who maintain policy, strategy, governance and financial control.

Clinical Assessment

The assessment of competence in a clinical area of sonographic practice.

Formative Clinical Assessment

A periodic assessment to record the stage of a student's or trainee's progress and provide feedback for future development of skill.

Summative Clinical Assessment

An assessment at the end of training to establish a student's or trainee's competence to practice as an autonomous sonographic practitioner.

Clinical Supervisor– see Mentor**Commendation**

An achievement/element of a programme or course that is deemed by CASE to be worthy of wider dissemination by way of example.

Competence (competences)

Refers to demonstrable performance outputs and may relate to a system or set of minimum standards required for effective performance at work. It is an 'outcome-based' approach.

Competency (competencies)

The set of behaviours (and, where appropriate, technical attributes) that individuals must have, or must acquire, to perform effectively at work – that is, the terms focuses on the personal attributes or inputs of the individual.

Conditions

Factors or limitations imposed by CASE that must be satisfied for a programme or course to gain full accreditation. There is usually a time period within which the conditions should be met.

Core Topic

A topic of study that is considered essential by CASE and which forms a pre-requisite for the named programme award or course qualification.

External Assessor / External Moderator / Independent Assessor

An external, independent person, who ensures unbiased clinical assessments are carried out and who moderates the final summative competency assessment with the internal assessor.

Interim Visit

A formal or informal visit by CASE to a programme or course which occurs between full accreditation events.

Internal Assessor

An individual from within the clinical department, who assesses a student's or trainee's progress and their readiness to undertake formative assessments, and advises on the timing of the summative assessment.

Focused Course

A stand-alone course that covers a specific area of clinical specialty for which competence to practice is to be achieved

Length of Accreditation

This refers to the period of accreditation time granted by CASE between major validation events and will normally be five or six years in order to coincide with the Institution's timetable.

Mentor/Clinical Supervisor

A named individual, trained in the area of practice being studied by the student or trainee, who leads on the clinical teaching of a student or trainee. The named mentor/clinical supervisor liaises with the education provider on issues relating to training.

Preceptorship

A period of transition for a newly qualified practitioner, during which time he or she will be supported by a preceptor to develop their confidence as an autonomous professional, refine skills, values and behaviours, and to continue on their journey of life-long learning.

Recommendations

Advisory guidance from CASE that would improve a programme or course.

Student

When considering the academic aspects of a programme or course a trainee is usually referred to as a student.

Trainee

An individual who is learning ultrasound in any capacity.

Training Co-ordinator / Practice Educator

The person within the clinical placement who oversees the clinical training provision within the clinical department, and acts in a supportive, facilitative role in relation to students/trainees and mentors/clinical supervisors.

Training Provider

A higher educational institution or training course/centre providing a programme or course of sonographic education and training.

Validation

The process of confirming that learning outcomes and competences, acquired by a student completing a training programme or course, have been assessed against reference points or standards through acceptable methodologies.

Validation Event

A meeting at which the validity of a programme or course is tested. This is often held in conjunction with the education and training provider host institutions own internal validation procedure.

British Medical Ultrasound Society

27 Old Gloucester Street
London
WC1N 3AX
Tel: 020 7636 3714

Chartered Society of Physiotherapy

14 Bedford Row
London
WC1R 4ED
Tel: 020 7306 6666

College of Podiatry

207 Providence Square
Mill Street
London
SE1 2EW
Tel: 020 7234 8620

College of Radiographers

207 Providence Square
Mill Street
London
SE1 2EW
Tel: 020 7740 7200

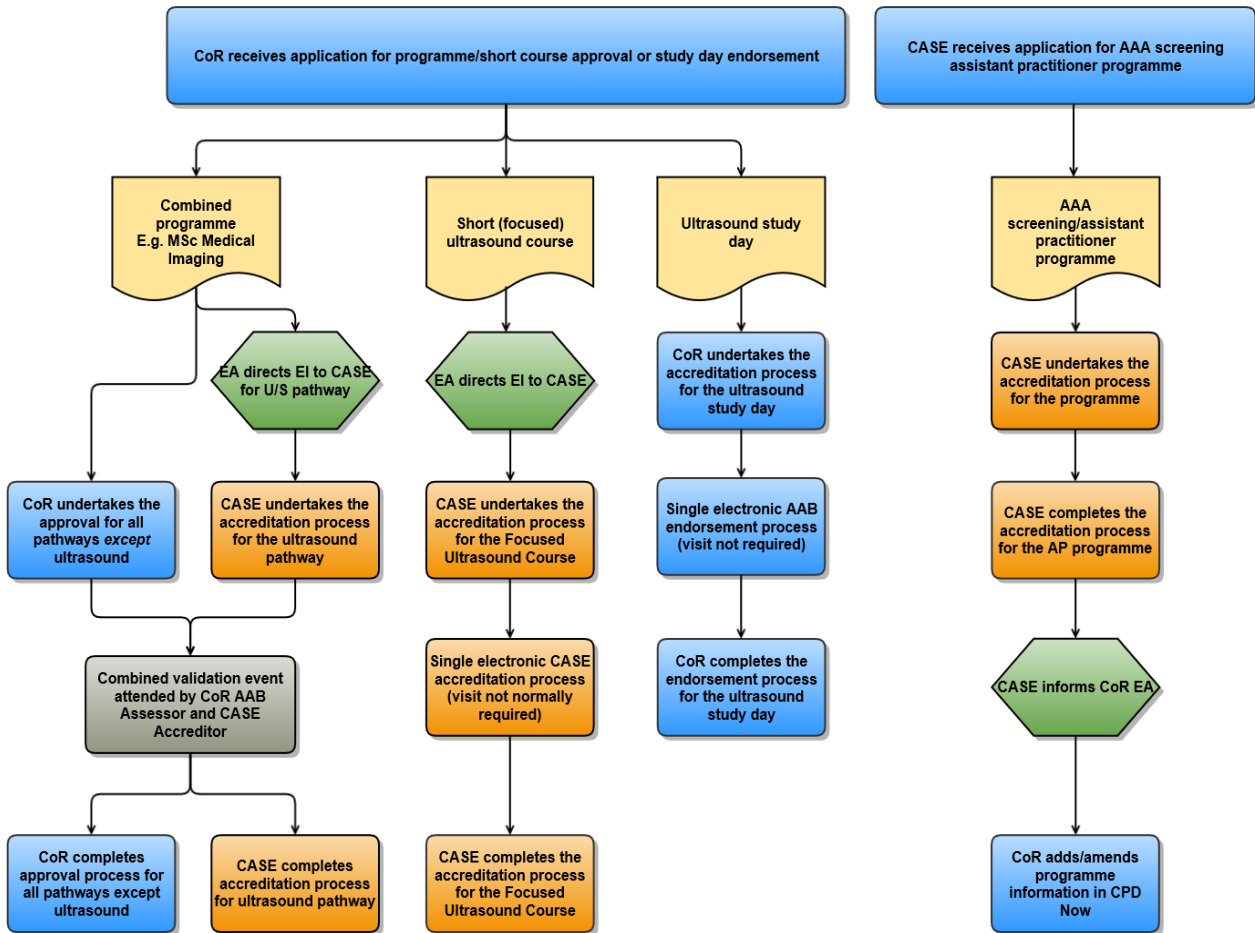
Institute of Physics and Engineering in Medicine

Fairmount House
230 Tadcaster Road
York
YO24 1ES
Tel: 01904 610821

The Society for Vascular Technology of Great Britain and Ireland

Margaret Powell House
405 Midsummer Boulevard
Milton Keynes
MK9 3BN

Approval and accreditation requests made to CoR and CASE



CoR = College of Radiographers
 AAB = Approval and Accreditation Board
 CASE = Consortium for the Accreditation of Sonographic Education
 EA = Education Administrator
 CPDA@sor.org

ACKNOWLEDGEMENTS

The 2015 version of the CASE Handbook has been edited and updated by the following members of the CASE Committee:

Crispian Oates

Gill Dolbear

Sally Hawking

Vivien Gibbs

Heather Venables

Acknowledgement to the following members of the Clinical Competency Guidelines Project Team:

Gill Harrison

Peter Cantin

Sue Halson-Brown

Julie Walton

Fiona Maddocks

Shaun Ricks

Document Revisions and Amendments

Date	Author	Commentary
November 2015	Crispian Oates	<ul style="list-style-type: none"> Original version
14.04.2016	CASE Co-Ordinator	<ul style="list-style-type: none"> Wording in section 2.6.1, Table 3 (p22) amended to read: “<i>Programme Leader or Deputy must hold an ultrasound qualification</i>” All references to accreditors providing a “<i>written commentary</i>” in terms of assessing course documentation have been changed to “<i>critical review</i>”
29.07.2016	CASE Co-Ordinator	<ul style="list-style-type: none"> Wording in section 4.6 (p48) amended to read “<i>Programme or Course Leader, or Deputy, holds a postgraduate ultrasound qualification</i>” to mirror the change made in table 3 (above) Immediately after this, the following new sentence has been added: “<i>CASE requires that the course must have an adequate level of expertise and staffing to cover the anticipated student numbers</i>” Wording in section 5.6 (p57) amended to read “<i>...to be moderated by an external assessor/moderator who is not directly responsible for the students’ training</i>”
19.10.2016	CASE Co-Ordinator	CSP name and logo added to title page
17.11.2016	CASE Co-Ordinator	<ul style="list-style-type: none"> Section 2.6.1, Table 3 (p22) the mandatory requirement for “<i>A minimum of two days (14 hours) per week spent in clinical practice for the duration of the module</i>” has been removed and will be replaced with more flexible guidelines and milestones in a future revision. In the interim, this has been replaced with “<i>An appropriate amount of time spent in clinical practice for the duration of the module.</i>” <p>Please refer to the Committee if you have any questions while the new guidelines are being developed.</p>
07.04.2017	CASE Co-Ordinator	<ul style="list-style-type: none"> Section 2.2, Figure 1: Timeline for the Accreditation Process (p13) Note added to clarify that <i>Feedback may be given at the event or afterwards depending on circumstances; new /complex programmes may require consultation with CASE Committee first</i> Section 2.2, Table 1, Timeline of Actions Required for an Accreditation (p14): actions within 1 week amended to read “<i>Headline report/meeting minutes received from the HEI outlining major issues</i>” so as to avoid confusion that it should come from CASE
28.9.2017	CASE Co-Ordinator	<ul style="list-style-type: none"> Page 10: the following paragraph has been removed: <i>CASE currently only accredits Masters-level programmes which normally include Clinical Ultrasound or Medical Ultrasound in the named award. Individual award titles (e.g. Postgraduate Certificate in Obstetric Ultrasound) are still recommended for accreditation by CASE; however, in recognition of current university practice, a more general award (e.g. Postgraduate Certificate in Medical Ultrasound) will be considered. Institutions are advised that, if the latter more general award is to be accredited, CASE will request that all students and trainees, on successful completion of their learning, are provided with a suitable transcript that reflects the clinical modules studied.</i> <p>And replaced with: <i>CASE has up until July 2017 accredited clinical ultrasound education and training programmes that have been at Master’s degree level. With the agreement of the member organisations CASE now has the flexibility it requires to evaluate emerging pathways and proposals for clinical ultrasound education and training and to accredit them when appropriate. These pathways could for example include undergraduate courses and degree apprenticeships.</i></p>
05.10.2017	CASE Co-Ordinator	COP name and logo added to title page and other relevant areas

28.11.2018	CASE Committee	Chapter 3: Focused Courses (p28) fully revised
22.05.2019	CASE Co-Ordinator	<ul style="list-style-type: none"> • Wording in Section 2.1.1 (p11) added to read: <i>“Payment of the accreditors’ expenses incurred whilst attending validation/revalidation events and interim reviews.”</i> • Wording in Section 4.5 (p39): <i>“Compensation for a failed clinical assessment is not recommended”</i> has been replaced with: <i>“CASE does not permit the use of compensation or condonement in relation to failed modules: all modules must be passed.”</i> • Sections 4.4.1 to 4.4.6 & 4.4.8, showing examples of learning outcomes have been removed. These have been replaced with a link to the updated mapping from the <i>Standards for Sonographic Education</i> document and the National Occupational Standards mapping which are now held on the website. • Glossary entry for ‘CASE Chair’ updated to separate the Committee role from Chair of the MO group (p65)
02.01.2020	CASE Committee	<ul style="list-style-type: none"> • Wording added to section 6.3.3 (p56) <i>“The minimum qualifications for the course, including English language assessment for foreign students (IELTS should meet minimum standards set by HCPC or GMC)”</i>
12.03.2020	CASE Committee	<ul style="list-style-type: none"> • Wording added in section 5.2 (p44) for clarity: <i>“This is to ensure that students or trainees will have access to...Protected, supervised hands-on scanning time for the duration of the award (no unsupervised scanning/decision making)”</i> <i>“Students/trainees must not scan unsupervised until they have achieved formal clinical competency i.e. have successfully completed their summative assessments and received their ratified award for that clinical area of practice.”</i> <i>“In order to ensure patient safety, no student/trainee should be taking full responsibility for an ultrasound examination until they have received their ratified award. Supervision is essential during the learning process for any CASE accredited award”</i>