

Accreditation in Adult Transthoracic Echocardiography

The European Association of Echocardiography

General Notes on the Accreditation Process

1. The assessment of candidates is designed to establish whether they have achieved an appropriate standard to independently perform and report transthoracic echocardiograms
2. Accreditation is open to sonographers and doctors
3. Candidates must, following a period of supervised training, pass a written exam and provide adequate evidence of practical training to achieve accreditation
4. While the first language of the exam will be English, a 'Glossary of Terms' used will be available on the European Association of Echocardiography web site and for each candidate in the written exam in French, German, Italian, Spanish and Turkish.
Holding examinations in languages other than English in the future may take place on discussion between the Committee, the Working Group and the National Societies.
5. The written exam will be held during the Euro Echo meeting and may also be held at other times and in other places on discussion between the Committee, the European Association of Echocardiography and National Societies
6. Completion of the exam does not carry any merit or validity in the absence of completing the full accreditation process
7. The validity of the exam process will be continuously assessed. Examiners, external to the Accreditation Assessment Committee will be invited to act as observers for the written assessment
8. Accreditation is valid for an initial period of 5 years. Following this time accreditation will only be renewed (reaccreditation) if evidence of continuing practical experience and ongoing learning is provided

The Exam

1. The exam will consist of an MCQ examination.
2. The exam will be in two sections.
3. Section 1 (120 mins.) will consist of 100 questions, 20 on basic physics and 80 testing knowledge of echocardiography. Each question will have 4 possible responses. Candidates will be asked to select the best answer. The target pass mark is 65 / 100. This may be adjusted by a meeting of the Committee to ensure consistency.
4. Section 2 (approx. 90 mins.) will consist of MCQ questions based on digital clips from echocardiographic studies. The target pass mark is 30 / 50. This may be adjusted by a meeting of the Committee to ensure consistency.
5. There will be a 20 min. break between the two sections
6. Candidates must pass both sections to pass the exam.
7. Marking: The papers will be marked electronically based on mark sheets completed by the candidates
8. Results of the exam will be sent to candidates within 2 weeks

The Log Book and Evidence of Practical Experience

1. Completion of the accreditation process requires successful passing of the practical assessment which requires submission of a log book within 12 months of passing the exam
2. The log book consists of 250 fully anonymised reports of cases performed by the candidate during a 12 month period within 12 months before or 12 months after passing the written examination. Guidelines for the case mix are specified in the notes to candidates.
3. The full log book must be submitted with the covering documents to the Heart House.
4. It is the responsibility of the candidate to ensure the log book is received within the 12 month window by posting the log book at least 7 days before the deadline
5. An electronic log book in the form of reports in commonly used formats is acceptable but if there is doubt about the acceptability of a particular format candidates are recommended to contact the Heart House before submission.

Marking of log books:

6. 15 cases will be randomly selected from the 250 in the log book (labeled A – O for grading purposes) for initial marking
7. Each case will be graded 1 – 5 by an examiner able to interpret the language of the report:
 - 1 = Serious and potentially dangerous error suggested by the report
e.g. Large pedunculated mass attached to the Tricuspid valve in the report. 'No evidence of endocarditis' in the conclusion!
 - 2 = Poor report with errors
e.g. dilated LA on measurements, EF 70%, MR described as mild – which doesn't fit
 - 3 = Report seems valid and conclusions consistent with data
 - 4 = Clear well laid out report, conclusions appropriate to data presented and will be comprehensible to cardiologists and other medical practitioners
In other words what we hope all our departmental reports look like although I suspect a few grade 3 reports are also released!
 - 5 = Excellent report in layout, descriptions, language with conclusions closely related to the data and the information on the request that would be comprehensible to all and clinically useful in caring for the patient
These reports can be written by a doctor or sonographer. For example a report of MVP describing all the features of the leaflets and scallops, accurately describing the function of the LV (allowing for the MR) and linking this to the feasibility of repair etc. etc.

8. A candidate must score 43/50 with no cases scoring 1, and not more than 2 cases scoring 2 / 5 to pass
9. If a candidate is failed on these first 15 cases by one of two initial examiners then a further 15 cases selected at random are examined by a third examiner in the same way. If the candidate passes on these 15 then the candidate will be deemed to have passed
10. If both first examiners fail the candidate then the 15 further cases are reviewed by two further examiners. Only if both examiners pass the 15 further cases then the candidate will have passed. If any case is scored 1 by two examiners (i.e. unsafe reporting) the candidate cannot pass
11. If a candidate fails these second 15 cases then all 250 cases are reviewed by the 2 examiners. If the 20 cases already examined are felt to be representative then the candidate is not passed and further action taken. The examiners may request:
 - a) *to ask for a further log of cases either 100 over 6 months (specifying the case mix to focus on areas of weakness) or*
 - b) *the candidate could be asked to submit 10 studies on video or digitally stored to be graded 1 – 5 using the same scale but taking into account the quality of the images as well as the report with the same 28 / 50 required to pass.*
12. A failure to pass on this second submission requires the candidate to start the whole process (including the exam) after a minimum gap of 1 year
13. A decision on the log book should be reported back to the candidate within 12 weeks of submission.

Supervisor's certification of the candidate's of practical ability:

13. Accompanying the log book will be the supervisor's certification of the candidate:
- Evidence that the candidate has undergone training in a recognised centre
 - Evidence that the candidate has performed and reported the 250 studies logged
 - Evidence that the supervisor has seen **and assessed** (10) studies performed by the candidate
 - Evidence that the supervisor is satisfied that the candidate can competently perform and report an echocardiographic study