Case Study





British Society of Echocardiography establishes standards in TOE accreditation through simulation



Ms. Jane Lynch, Expert Cardiac Physiologist, from University Hospital of South Manchester (UK) and Chair of the Accreditation Committee at the British Society of Echocardiography (BSE) looks at the challenges of TOE education and how simulation can play a key role within current training pathways and certification.

"Clinical training in transoesphogael echocardiography (TOE) is still mainly 'on the job'", says Ms. Lynch commenting on the current provision of training in UK hospitals today. While simulation has been widely adopted in multiple healthcare disciplines as an effective pedagogy that integrates well into the culture of patient safety; simulation training in the field of TOE practice is relatively new, largely due to appropriate simulation equipment for this particular skill only having become available in recent years.

Trainees of TOE are from a multi-disciplinary background, with most being Cardiothoracic Anaesthetists, Cardiology Registrars or Cardiac

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Physiologists. "TOE training presents us with some unique challenges," says Ms. Lynch. "Students of transthoracic echocardiography (TTE) have the advantage that they can practise their probe handling skills on volunteers, but depending on the clinical discipline, trainees of TOE have a much more limited scope to practise as it can only be performed under the supervision of experienced operators in Theatre or the Catheter Lab with patients under general anaesthetic in peri-operative situations or diagnostic TOE in sedated patients. Simulator training is very useful in kick starting the learning curve so that valuable theatre time can be more effectively used for trainees to see a good range of pathology and to learn the skills necessary to acquire the images in difficult situations and on different body shapes and co-morbidities."

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BSE introduces Practical Assessment Days for TOF accreditation

There are an increasing number of TOE simulation courses nationally and while the BSE does not run its own TOE course, it does have an official accreditation process requiring candidates to take a written exam, compile a log book of 125 cases (or a reduced number of 75 if candidates already hold TTE accreditation) and five digital cases to be completed within a two year period. While comprehensive in its structure, the challenge here is that the logbook and digital cases need to be sent to two independent markers for assessment, which as Ms. Lynch points out can take a considerable amount of time. "All assessors do this voluntarily in their spare time. They are busy people and we don't have enough! Our recently introduced Practical Assessment Days have been created to address these limitations."

These have been designed for three main purposes: to allow candidates to better plan and speed up the process; to allow better feedback to the candidate and to allow the assessor to actually see the candidate manipulate the probe and acquire images independently. "Inexperienced candidates can often hand in good digital cases acquired under supervision but aren't ready to act independently," observes Ms. Lynch. "The simulator allows us to be sure they have the appropriate skills."

The Practical Assessment Days, which the BSE anticipates to be mandatory, are still in the pilot phase but will consist of three work stations: log book;

viva of the digital cases and observed practice with the simulator. The candidate must pass all three stations to be successful.

"We aim to run the Practicals four times a year with around ten candidates each time," says Ms. Lynch. "Candidates are allowed one resit and if they do not pass, they will have to start the whole process again."

Supporting CQC principles and aims

"The HeartWorks simulator has provided the final link in our assessments. We can create a set protocol for the exam to be taken on the simulator which ensures a standardized benchmark for all candidates to achieve. The HeartWorks Student Assessment and Review Tool (START) enables us to capture and store all submitted images enabling better feedback to the candidates and allows us to keep the images for governance. If the assessors have any worries regarding the candidates' ability to acquire certain views after the digital cases are reviewed, then this is an opportunity for the candidates to prove themselves."

BSE Accredited TOE operators need to re-accredit every five years which is achieved presently by either a combination of a minimum of 75 TOE scans performed each year together with at least 20 BSE re-accreditation points or a combination of 50-74 scans with at least 30 re-accreditation points. The BSE also offers departmental accreditation facilitating processes that help to ensure TOE practice meets specified standards in quality and safety thus supporting the broader principles and aims of the Care Quality Commission (CQC).

To find out more about how HeartWorks could help your trainees learn faster and learn better get in touch today.

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