

## **OPERATIONAL POLICY FOR ECHOCARDIOGRAPHY SERVICE WITHIN CRITICAL CARE**

This document is supposed to lay out the provision of echocardiography service for the Intensive Care and High Dependency Unit at the Royal Sussex County Hospital and Princess Royal Hospital

### **Provision of service during daytime -Transthoracic echocardiography**

Requested scans for any of the ICU patients will be performed by either Dr. S Bruemmer-Smith, Dr Rakhee Hindocha or the cardiology registrar on call. Requests can be made directly to the above or by paging the cardiology registrar on 8850.

If the cardiology registrar is contacted the urgency of the scans needs to be discussed so that a timely scan can be performed.  
E.g. Suspicion of tamponade is an emergency and needs to be dealt with promptly, whereas other diagnostic questions might require a less urgent scan.

A clear **indication** for the scan and questions to be answered should be discussed between the consultant on call or a relevant junior team member and the echocardiographer.

A brief **written report** will be provided in the notes as well as a standard report on metavision with a formal print out. This should be filed under the patient's clinical notes.

The studies should be downloaded to the **central archiving system**.

Any unclear findings should be discussed with the cardiology team or directly with Dr Rachael James, Lead for Echocardiography within Cardiology. There is also a Tuesday afternoon cardiology QA meeting where cases can be reviewed.

The cardiology registrar needs to be contacted **out of hours or if trained ICU staff is unavailable**.

### **Transoesophageal echocardiography (TOE)**

The indication for a TOE should be discussed by the consultant on call, Dr Bruemmer-Smith or the cardiology registrar who will organise the performance of the scan.

This can be performed by Dr S Bruemmer-Smith or a trained cardiology registrar or Dr James.

Relevant diagnostic findings for specific questions e.g. **endocarditis** should be discussed with appropriate teams e.g. cardiology or cardiothoracic team.

Indications for TOE are also haemodynamic assessment, preload assessment and effect of ventilation if the transthoracic windows are inadequate.

## **Provision of FOCUSED INTENSIVE CARE ECHOCARDIOGRAPHY (FICE)**

Guidelines and certification requirements for FICE can be found on the Intensive Care Society's webpage under

[http://www.ics.ac.uk/meetings\\_seminars/ics\\_modules/fice\\_accreditation](http://www.ics.ac.uk/meetings_seminars/ics_modules/fice_accreditation)

or Education and Training - FICE and BSE accreditation

Only **registered mentors** will be able to train ICU staff in focused Echocardiography. Currently this will be Dr S Bruemmer-Smith, Dr Rakhee Hindocha and Dr Rachael James.

Trainees who might have started training elsewhere need to show proof of their logbook and mentor. They will perform a structured assessment (forms can be found on relevant website) and perform at least 2 supervised scans before they can scan without direct supervision.

Every trainee will need an induction on the machine, archiving and reporting.

As per FICE guideline- NO clinical decision should be drawn from any focused scan before the echocardiographer has been signed off and holds **FICE certification**.

Each **scan needs to be reviewed** by a mentor or supervisor (definition see webpage) during the training period before an official report can be written. Staff in training need to discuss urgent findings with ICU staff as above or the cardiology registrar if out of hours or trained ICU staff is not available. They can review or finalise the examination.

The purpose of a focused scan is the **exclusion of major pathologies** that might need to be acted upon immediately or warrant further investigations or a full echocardiogram.

If a scan is requested there needs to be awareness that a focused scan only uses **limited windows** and answers limited questions.

1. Severe LV dysfunction
2. Severe hypovolaemia
3. Significant RV dysfunction
4. Pericardial effusion
5. Large pleural effusion
6. Any suspicion of a valvular or aortic abnormality requires an urgent complete echocardiographic examination.

A **FOCUSED scan** does **NOT** substitute a diagnostic full echocardiogram!

A **focused report** needs to be written on Metavision and a copy placed in the patient's clinical notes.

Each scan needs to be downloaded to a central archiving system.