



HKCA Focused Transthoracic Echocardiography Training Curriculum:

A. Scope

1. Transthoracic echocardiographic studies vary from goal-directed (focused) studies to detailed comprehensive studies. Focused studies include evaluation of cardiac function and assessment of fluid and pericardial status
2. This training curriculum applies to the focused transthoracic echocardiographic studies on adult patients performed by HKCA anaesthetists
3. This curriculum is intended to be educational to provide guidance on the training of HKCA anaesthetists on the use of focused transthoracic echocardiography

B. Target group

1. This training curriculum applies to HKCA specialist anaesthetists and trainees undertaking training of focused transthoracic echocardiography and/or supervision of such training

C. Objectives of training curriculum

1. To define the knowledge and skills which needed to acquire by anaesthetists in focused transthoracic echocardiography
2. To recommend the training framework to attain these knowledge and skills

D. Features of focused transthoracic echocardiographic studies

1. Usually performed at point of care by anaesthetist to provide information of cardiac function. This information is integrated with the other clinical information to guide anaesthetic management
2. Generally qualitative assessment
3. Limited in views obtained and time for assessment when compared to comprehensive studies

E. Knowledge in focused transthoracic echocardiography

1. An understanding of physics of ultrasound and its application in echocardiography
2. An understanding of relevant cardiac sonographic anatomy
3. Hemodynamic assessment including fluid status, ventricular filling and functional assessment
4. Limited valve assessment for clinically relevant disease
5. Recognition of other common clinically severe cardiac disease states requiring urgent intervention



6. Limitations of focused transthoracic echocardiographic studies and indications for cardiologist consultation

F. Skills in focused transthoracic echocardiography

1. Knobology and image optimization skills
2. Sonographic skills
3. Interpretive skills
4. Image storage and documentation skills

G. Training

It should consist of a program that provides for attainment of the knowledge and skills

1. Introductory course which combines knowledge and skills training
 - a) Pre-course reading
 - b) Lectures
 - c) Skills practice: sonographic and interpretive skills training
 - d) Assessment of attainment of knowledge and skills by test at the end of introductory course
2. Practical training
 - a) At least 20 supervised focused studies
 - b) At least 20 unsupervised studies with review by a supervisor
 - c) Log book or equivalent to record the number of studies performed
 - d) Summative assessment by the supervisor at the end of training; additional training will be recommended if necessary
 - e) The trainees can acquire the training requirement by attending practical workshops, echo lab/ICU attachment, self arranged training with supervisor

H. Supervision:

1. Recognition of prior experience of experienced practitioners who can be the 'grandfather' supervisors
2. HKCA support enthusiastic fellows to acquire the proposed training requirement and become supervisors

I. Reference

1. Guidelines on Training and Practice of Perioperative Cardiac Ultrasound in Adults. Australian and New Zealand College of Anaesthetists. PS 46 (2013)

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