The Alfred Critical Care ADVANCED Echocardiography & Standard Ultrasound Course November 2019

Advanced ECHO - Wednesday 20 & Thursday 21

Standard CCU - Friday 22

Summary

Alfred Critical Care Advanced Echo Course

The Alfred ICU Echocardiography Faculty is proud to present the inaugural "**Alfred Critical Care Advanced Echo Course**" created specifically for the critical care doctor wishing to advance their transthoracic echocardiography skills and knowledge beyond a basic level 1 study.

The course syllabus is primarily case based, with a series of lectures, practical scanning and dynamic interactive tutorials designed to articulate the concepts necessary for advanced image interpretation and stimulate critical thinking. Designed for the busy practitioner, no specific preparation is required however participates are expected to have a baseline level of echo knowledge (completed a level 1 echo course) and have several years of clinical experience (preferably the level of senior registrar or above in their chosen critical care speciality). All teachers are part of the Alfred ICU and Cardiology Echo Departments and include Intensivists, Cardiologists, Cardiac Anaesthetists and sonographers. The course content will be highly applicable to candidates preparing for the DDU final exam.

Pre-requisites

- Completion of level 1 basic echocardiography
- Advanced trainee/consultant of CICM, RACP, ACEM or ANZCA

Course Objectives

Hemodynamic assessment

- Produce accurate measurements of cardiac output, LVOT VTI, left atrial pressure, pulmonary artery pressure, and right atrial pressure.
- Understand the key features in echo assessment of the 4 classes of shock (cardiogenic, obstructive, vasodilatory and hypovolemic).
- Understand the effects of inotropes when performing a hemodynamic assessment.

LV assessment

- Demonstrate how to reliably measure and classify LV geometry
- Critically evaluate various methods to evaluate LV systolic function
- Understand the key parameters for diastolic function assessment
- Understand the hemodynamic and echo principles of LVOT obstruction assessment
- Discuss the key echo features of acute myocarditis, acute ST elevation infarction and stress cardiomyopathy

RV and pulmonary hypertension assessment

- Demonstrate how to reliably measure and assess RV systolic function.
- Understand the key anatomical differences between the RV and LV.
- Critically evaluate the various the methods to measure pulmonary pressure.
- Demonstrate the prognostically important echo findings in a patient with severe pulmonary arterial hypertension.

Valvular assessment

- Demonstrate how to reliably measure the 2D and Doppler components relevant to assessment of aortic stenosis.
- Appreciate the effect of altered hemodynamic loading condition of aortic stenosis severity including the differences between low flow – low gradient aortic stenosis, and normal flow – low gradient aortic stenosis.

- Demonstrate the key parameters relevant to grading aortic regurgitation, and explain the important features of LV assessment in a patient with severe aortic regurgitation.
- Accurately measure and interpret mitral stenosis severity, and understand the effects of altered hemodynamic loading conditions.
- Reliably measure mitral regurgitant volume and the pitfalls of various measures of mitral regurgitation severity assessment in the critical care setting.

Shunts and cardiac mass assessment

- Explain the echo features of the various atrial septal and ventricular septal defects.
- Outline a structured approach to the evaluation of cardiac masses and the limitations of TTE.

Pericardial pathology assessment

- Demonstrate the key hemodynamic and echo features of pericardial tamponade.
- Outline the various approaches to performing echo guided pericardiocentesis.
- Explain the hemodynamic and echo features of pericardial constriction.

Each course is limited to 20 participants.

Details of the online **pre-reading** for this course will be sent by email four weeks prior to the course. A participation certificate will be issued at the course for all delegates who successfully complete the course requirements of two day attendance. There will be drinks and nibbles at a nearby venue for all Echo course participants and faculty on the evening of the first day and this hospitality is included.

Critical Care Ultrasound

One of the major advances in critical care medicine in the last decade has been the explosion in point-of-care ultrasound technology. Utilising ultrasound on our patients at the bedside improves patient care and adds to safety and efficacy of diagnosis and procedures in the critically ill patient. Today, ultrasound guided procedures and diagnosis is becoming the standard of care.

The Critical Care Ultrasound course is aimed at equipping practitioners involved in the care of critically ill patients- intensivists, emergency physicians, anaesthetists and general physicians with the necessary technical and cognitive skills to utilise this technology.

This course can teach you the following:

Vascular

Real time vascular access including femoral and neck anatomy as well as peripheral veins (PICC) and arteries

Proximal DVT screening study

Rapid diagnosis of AAA

eFAST examination

Chest

Basics of lung ultrasound including the diagnosis of pulmonary oedema, consolidation and pneumothorax using ultrasound (BLUE protocol)

Pleural disease including quantification of pleural effusions

Limited neck ultrasound for percutaneous tracheostomy, identification of goiter and ETT placement.

The course is a mixture of small group didactic teaching with hands on sessions using normal volunteers, ultrasound phantoms for vascular access and pathological models for eFAST scanning (peritoneal dialysis) and AAA. This one day course follows

the two day Critical Care Echocardiography Course and complements this course very well for the practitioner interested in all aspects of critical care ultrasound.

Places are limited to 16 to maintain an instructor: candidate ratio of 1:4 for all hands on sessions.
The faculty comprises an enthusiastic group of intensivists and emergency physicians with a strong interest in critical care ultrasound. A number of the faculty members have completed the DDU (Critical Care). This course will also provide a good basis for those wishing to prepare for the DDU Critical Care Ultrasound.

Details of the online **pre-reading** for this course will be sent by email four weeks prior to the course (it is the same as the ECHO pre reading). A participation certificate will be issued at the course for all delegates who successfully complete the course requirements of one days attendance.

ECHO
13Hrs 0Mins
Group Learning
Workshop & Training
Procedural Skills

CCU

8Hrs 10Mins

Group Learning

Workshop & Training

Procedural Skills

ECHO
1 point per hour
13Hrs 0Mins

CCU
1 point per hour
8Hrs 10Mins

ECHO
Lectures: Cat 2A - 1 point per hour
(6Hrs 40Mins)
Skills Station: Cat 3B -
3 points per hour
(6Hrs 5Mins)

CCU
Lectures: Cat 2A - 1 point per hour
(3Hrs 20Mins)
Skills Station: Cat 3B -
3 points per hour
(4Hrs 40Mins)

CPD points have been allocated by the above organisations. Registrants should use the information above to apply for recognition. Please note that you will not be granted automatic recognition, you must make a claim with your College.

Details

- **When**
- Wednesday, 20 November, 2019 - Friday, 22 November, 2019

  8:30 AM - 6:00 PM

  E. Australia Time

- Add to Calendar

- **Where**
- Monash Teaching Facilities

  Level 5, The Alfred Centre

  55 Commercial Road

  Prahran, VIC(AUS) 3181

- Get Map

- **Organiser**
- ICU Events
- Contact Us

- **Links**
- ***Related Websites***

  Alfred ICU Webpage