



AACES Critical Care & Emergency Procedure Course

Course Description

Specifically designed for healthcare providers who are exploring point of care ultrasound to enhance the safety and effectiveness of their procedural skills. This course covers the spectrum of ultrasound guided procedures and interventions commonly performed in the intensive care units, high dependency units and emergency department.

Lectures are succinct and delivered in an interactive format. The **Hands-on Training** is the cornerstone of the program. During these sessions, trainees will be guided to perform ultrasound guided interventional skills on phantoms and mannequins. With more than 4hrs set aside for the practical, participants will have ample opportunities to practise. This course will lay the foundation required of the healthcare provider in performing ultrasound guided critical care and emergency procedures.

Learning Objective

Upon completion of the Acute and Critical Care Session, participants will learn how to use ultrasound to:

- Perform cricothyrotomy, endotracheal intubation, predict difficulty of laryngoscopy
- Perform pericardiocentesis
- Perform central venous catheterization of the internal jugular, subclavian and femoral vein
- Perform peripheral venous and arterial catheterization
- Perform thoracocentesis, paracentesis, suprapubic bladder aspiration.
- Perform lumbar puncture
- Evaluate prandial status, confirm placement of nasogastric tube

Upon completion of the Soft Tissue and Nerve Block Session, participants will learn how to use ultrasound to:

- Perform lower limb nerve block (fascia iliaca-femoral nerve)
- Perform truncal nerve block (erector spinae plane block / intercostal block)
- Perform joint aspiration of the knee, hip, elbow and shoulder
- Detect and remove foreign bodies
- Assist in confirmation of joint enlocation (shoulder) and assessing adequacy of fracture reduction

Who should attend?

Critical care physicians, emergency physicians, physicians, surgeons, anaesthetist, residents, medical officers and healthcare workers who are required to perform these procedures in their practice. Participants should already have a basic understanding and appreciation of point of care ultrasound and ultrasound physics.

ACGME-I Competencies

This course is designed to meet one or more of the following ACGME competencies:

- Patient Care
- Medical Knowledge
- Practice-Based Learning and Improvement

Course Programme

0800	Registration & Welcome	1300	Truncal plane block ESPB, Intercostal nerve block
0810	Basis of ultrasound guidance Role of procedural ultrasound and pre-procedural preparation Principles of needle guidance	1320	Spinal tap Lumbar puncture
0830	Vascular access Central venous access: internal jugular, subclavian, femoral vein	1340	Truncal tap Paracentesis; thoracocentesis; suprapubic bladder aspiration.
0850	Tube Endotracheal intubation, cricothyroidotomy, nasogastric intubation	1400	Joint tap Arthrocentesis of knee, hip, elbow and shoulder.
0910	Pericardiocentesis Pericardiocentesis	1420	Manipulation and reduction US assisted shoulder joint and distal radius manipulation and reduction.
0930	Lower limb plane block Approach to nerve block. Fascia iliaca-femoral nerve blocks	1440	Break
1000	Break	1500	Hands-on Training 2 (Continue..)
1020	Hands-on Training 1		
1220	Lunch	1700	Admin & Course Closure

AACES Online Lectures

Physics, Knobs and Probes

Essentials of image formation, acquisition and optimization and probe manipulation techniques.

Common Artefacts

Online lectures will be made available 2 weeks prior to course date. Please review these AACES Online Lectures before the course.

Additional notes will be given

Vascular access: peripheral

- Approach to vascular access. Peripheral venous and arterial access

Soft tissue

- Soft tissue abscess; peritonsillar abscess; foreign body identification and removal.

Admin

Course material, meals and parking coupons will be provided.

Venue: Khoo Teck Puat Hospital, 90 Yishun Central, S768828.

Website: Visit <https://www.ktph.com.sg/AACES> to learn more about AACES and other educational resources.