





CRITICAL CARE ULTRASOUND – A PRIMER





















GRAND HYATTHOTEL





OBJECTIVES:

After active engagement in this workshop, participants will be better able to:

- 1. Understand principles and evidence-based recommendations of point-of-care critical care ultrasound (problem-based, goal-oriented, physician-performed, extension of physical examination)
- 2. Effectively operate an ultrasound machine in its basic functions
- 3. Acquire adequate ultrasound images of the main focused cardiac views (subcostal, apical, parasternal, inferior vena cava views), lung ultrasound views and FAST views
- 4. Correctly interpret basic POCUS images, and integrate findings in clinical decision making

TARGET AUDIENCE:

- This -1day Workshop is designed for healthcare providers in the fields of anesthesiology, emergency medicine, critical care medicine, acute care medicine and pre-hospital medicine who routinely manage acutely ill patients.
- The course is designed for healthcare providers with limited or no experience in point-of-care ultrasound and covers the use of limited Transthoracic Echocardiography, lung ultrasound (LUS) and Focused Assessment Sonography in Trauma (FAST) in the settings of cardiac arrest, peri-arrest resuscitation, shock and trauma, and as an emergency bedside diagnostic tool for unstable patients.





1-3 FEBRUARY 2025 KUWAIT CITY

PRE CONFERENCE
WORKSHOP
30 - 31 JANUARY

WORKSHOP TIMETABLE			
8:45-9:00	Registration		
9:00-9:10	Welcome		
9:10-9:30	Introduction to Critical Care Ultrasound After active engagement in this session, participants will be better able to understand principles and evidence-based recommendations of point-of-care critical care ultrasound (problem-based, goal-oriented, physician-performed, extension of physical examination)	Alberto Goffi	
9:30-11:00	Hands-on Training (HOT) 1 – Basic FoCUS views & Image interpretation Goals and Objectives After active engagement in this session, participants will be better able to: - Effectively operate an ultrasound machine in its basic functions Acquire adequate ultrasound images of the main focused cardiac views (subcostal, apical, parasternal, inferior vena cava views) - Identify key cardiac structures - Apply principles of qualitative/semi-quantitative image interpretation Active Learning: small group hands-on sessions 3 stations – 30 min/each (total 90 min) STATION 1: Parasternal Views 1 STATION 2: Apical Views STATION 3: Subcostal Views	Alberto Goffi Anwar Murad Ahmed Al-Mumin Maha Al Mandhari Mujahid Al-Busaidi Moza Al Kalbani Jonathan Aron	
11:00-11:30	Coffee Break		
11:30-11:50	BASIC LV Assessment After active engagement in this session, participants will be better able to understand cardiac physiology and anatomy relevant to LV assessment Active Learning: interactive lecture & case-based learning	Maha Al Mandhari	
11:50-12:10	BASIC RV Assessment After active engagement in this session, participants will be better able to understand cardiac physiology and anatomy relevant to RV assessment	Anwar Murad	
12:10-12:30	BASIC Pericardium Assessment After active engagement in this session, participants will be better able to understand cardiac physiology and anatomy relevant to pericardial effusion and tamponade physiology Active Learning: interactive lecture & case-based learning	Jonathan Aron	
12:30-13:30	Lunch		

13:30-15:00	Hands-on Training (HOT) 2– Basic FoCUS views & Image interpretation Goals and Objectives After active engagement in this session, participants will be better able to: - Perform basic valvular assessment - Correctly identify and interpret US signs of LV function (visual estimation of LV ejection fraction; normal LV size; principle of RWMA identification; linear measurement PLAX) - Correctly identify and interpret US signs of RV function (visual estimation of RV function; TAPSE; normal RV size; septal dyskinesia) - Correctly identify and interpret US signs of pericardial effusion and tamponade physiology (IVC plethora, RA systolic collapse, RV diastolic collapse, respiratory variations) - Apply an integrated ultrasound approach to shock, dyspnea and cardiac arrest - Correctly interpret acquired images, and integrate findings in clinical decision making Active Learning: small group hands-on sessions; video analysis / interactive lecture & casebased learning 3 stations - 30 min/each (total 90 min) STATION 1: Complete Exam 1 STATION 2: Complete Exam 2 STATION 3: Image interpretation	Alberto Goffi Anwar Murad Ahmed Al-Mumin Maha Al Mandhari Mujahid Al-Busaidi Moza Al Kalbani Jonathan Aron
15:00-15:30	Coffee Break	
15:30-15:50	BASIC Lung Ultrasound After active engagement in this session, participants will be better able to understand basic lung sonographic findings (A-lines, B-lines, lung sliding, lung pulse, lung point, pleural effusion, consolidation, air bronchograms) Active Learning: interactive lecture & case-based learning	Ahmed Al-Mumin
15:50-16:10	FAST After active engagement in this session, participants will be better able to understand basic principle of e-FAST Exam (positive findings; RUQ, LUQ, pelvic views) Active Learning: interactive lecture & case-based learning	Moza Al Kalbani
16:10-17:10	Hands-on Training (HOT) 3 – Lung Ultrasound and FAST Goals and Objectives After active engagement in this session, participants will be better able to: - Perform basic LUS assessment - Correctly identify and interpret key lung US findings (A-lines, B-lines, lung sliding, lung pulse, spine sign) - Perform basic e-FAST assessment Active Learning: small group hands-on sessions 2 stations – 30 min/each (total 90 min) STATION 1: LUS STATION 2: FAST	Alberto Goffi Anwar Murad Ahmed Al-Mumin Maha Al Mandhari Mujahid Al-Busaidi Moza Al Kalbani Jonathan Aron
17:10	Adjourn	