***ECIM 2025 PoCUS Workshop I***

**Program**

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| Recorded Powerpoint Sessions | Basic principles of ultrasound and knobology |
| | Lung assessment |
| | Heart assessment |
| | Vascular assessment for Deep Venous Thrombosis |

**Hands on practice**

*March 5th*

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|---|---|
| 12:45 | Welcoming Session |

| | Station 1<br>Approach to the Breathless patient 1 | Station 2<br>Approach to the Chest Pain patient 1 | Station 3<br>Approach to the Breathless patient 2 | Station 4<br>Approach to the Chest Pain patient 2 | Station 5<br>Approach to the Breathless patient 3 |
|---|---|---|---|---|---|
| 13:00 | Group A | Group B | Group C | Group D | Group E |
| 14:00 | Group B | Group C | Group D | Group E | Group A |
| 15:00 | Group C | Group D | Group E | Group A | Group B |
| 16:00 | Group D | Group E | Group A | Group B | Group C |
| 17:00 | Group E | Group A | Group B | Group C | Group D |

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| 18:00 | Closing Session |

**Clinical Case design**

- Case duration: 60 min
- Clinical vignette with physical examination
- Instructor shows assessment in real time without comments, and explains what is doing and seeing
- Trainee performs and comments (at least 10 min per trainee).
- Clinical case and images/films are shown with pathologic findings
- Trainee checklist to assure all goals are achieved

**Clinical Cases Goals**

Station 1 - Approach to the Breathless patient 1

*Pneumonia with pleural effusion*

- Acquire adequate lung images at every thoracic point
- Acquire adequate cardiac images
    - Parasternal long axis
    - Parasternal short axis
    - Apical
    - Subcostal
- Identify anatomical structures
    - Atria and ventricular walls
    - Cardiac valves
    - Pericardium
    - Soft tissue
    - Ribs (bony and cartilaginous)
    - Pleural sliding
    - Diaphragm
- Identify patterns
    - A pattern
    - Focal B lines
    - C pattern
    - Atelectasis
    - Pleural effusion
    - Collapsing ventricula (septic shock)
    - Collapsing Inferior Vena Cava

Station 2 - Approach to the Chest Pain patient 1

*Pericardic effusion*

- Acquire adequate cardiac images
    - Parasternal long axis
    - Parasternal short axis
    - Apical
    - Subcostal
- Identify anatomic structures in each cardiac window
    - Atria and ventricular walls
    - Cardiac valves
    - Pericardium

- Identify patterns
    - Pericardial effusion
    - Tamponade signs

Station 3 - Approach to the Breathless patient 2

*Heart failure*

- Acquire adequate cardiac images
    - Parasternal long axis
    - Parasternal short axis
    - Apical
    - Subcostal
- Acquire adequate lung images at every thoracic point
- Identify anatomic structures in each window
    - Atria and ventricular walls
    - Cardiac valves
    - Pericardium
    - Soft tissue
    - Ribs (bony and cartilaginous)
    - Pleural sliding
    - Diaphragm
- Identify patterns
    - Diffuse B lines
    - Bilateral pleural effusion
    - Compromised myocardial function
    - Ingurgitated Inferior Vena Cava

Station 4 - Approach to the Chest Pain patient 2

*Pneumothorax*

- Acquire adequate lung images at every thoracic point
- Acquire adequate cardiac images
    - Parasternal long axis
    - Parasternal short axis
    - Apical
    - Subcostal
- Identify anatomical structures
    - Atria and ventricular walls
    - Cardiac valves
    - Pericardium
    - Soft tissue
    - Ribs (bony and cartilaginous)
    - Pleural sliding
    - Diaphragm
- Identify patterns
    - A’ pattern
    - Lung point
    - Right ventricular dilatation
    - Ingurgitated Inferior Vena Cava

Station 5 - Approach to the Breathless patient 3

*Pulmonary Embolism*

- Acquire adequate lung images at every thoracic point
- Acquire adequate cardiac images
  - Parasternal long axis
  - Parasternal short axis
  - Apical
  - Subcostal
- Perform lower limbs venous assement by two points compression (popliteal and femoral)
- Identify anatomical structures
  - Atria and ventricular walls
  - Cardiac valves
  - Pericardium
  - Soft tissue
  - Ribs (bony and cartilaginous)
  - Pleural sliding
  - Diaphragm
  - Popliteal vein and artery
  - Femoral vein and artery
  - Safena vein
- Identify patterns
  - A pattern
  - C pattern
  - Right ventricular dilatation
  - Ingurgitated Inferior Vena Cava
  - Non-compressible venous structures