Basic ECHO workshop

Thursday, 24 September

MORNING SESSION

10:00 - 12:50 (2 hours 50 min)

eFAST – Lung Ultrasound

- **Introduction to Pediatric POCUS**
- **eFAST echo training (Pericardial, pleural & diaphragmatic, perihepatic, perisplenic & pelvic)**
  Participants will learn to:
  - Describe the anatomy and sonographic windows assessed in the eFAST exam, including:
    - Right and left upper quadrants (hepatorenal and splenorenal recesses)
    - Pelvis (pouch of Douglas/rectovesical space)
    - Pericardium (subxiphoid cardiac view)
    - Anterior thorax (for pneumothorax and pleural effusion)
  - Perform a complete eFAST scan, including acquisition of standard views in a logical, time-sensitive sequence.
  - Identify normal findings and differentiate them from pathological ones, including:
    - Free intraperitoneal fluid
    - Pericardial effusion
    - Pneumothorax (absence of lung sliding, barcode sign)
    - Hemothorax (pleural effusion)
    - Understand the limitations and pitfalls of eFAST

- **Lung Ultrasound training:**
  Participants will learn to:
  - Identify normal lung ultrasound artifacts, such as A-lines and lung sliding.
  - Differentiate between key pathological findings, including:
    - Pleural effusion
    - Pneumothorax
    - Interstitial syndrome

        - Lung consolidation
    - Perform a systematic lung ultrasound exam, including anterior, lateral, and posterior thoracic views.
    - Interpret lung ultrasound findings in common pediatric conditions, such as pneumonia, bronchiolitis, pulmonary edema, and trauma.
    - Recognize limitations and pitfalls of lung ultrasound in clinical practice.

AFTERNOON SESSION

13:50 – 16:40 (2 hours 50 min)

Focused Cardiac US

- **Focused cardiac ultrasound**
  Participants will learn to:
    - Understand the clinical indications and scope of focused cardiac ultrasound, particularly in acute pediatric care settings.
    - Recognize basic cardiac anatomy on ultrasound
    - Identify and obtain standard transthoracic cardiac windows, including:
        - Subxiphoid
        - Parasternal long-axis
        - Parasternal short-axis
        - Apical four-chamber
    - Differentiate normal from abnormal findings related to:
        - Left and right ventricular size and function
        - Pericardial effusion
        - Volume status (IVC assessment)
        - Signs of cardiac tamponade or right heart strain
    - Interpret basic dynamic cardiac images to assess for:
        - Global contractility
        - Effusion & tamponade
        - Cardiac arrest
    - Recognize the limitations of focused cardiac ultrasound