Focused Intensive Care Echo

1. Parasternal long axis (PLAX)

**Patient position**
- Left lateral or supine

**Probe position**
- Second-fourth intercostal space
- Left sternal edge
- Probe marker pointing towards right shoulder
  - ‘Cuts’ the heart from base to apex
- Depth ~12 cm

**Structures visualised**
- LA, LV, AV, MV
- RVOT
- Descending aorta

2. Parasternal short axis (PSAX)

**Patient position**
- Left lateral or supine

**Probe position**
- Second-fourth intercostal space
- Left sternal edge
- 90° rotation clockwise
  - probe marker pointing towards left shoulder
- ‘Mid-papillary’ view

**Structures visualised**
- LV, papillary muscles
- Interventricular septum
- RV
3. Apical 4 chamber (A4Ch)

**Patient position**
- Left lateral or supine

**Probe position**
- Probe over cardiac apex
- Marker at 2-3 o’clock position
- Increase depth to ~16cm

**Structures visualised**
- LA, MV, LV
- Interatrial and interventricular septa
- RA, TV RV
  - RV should be 2/3 longitudinal length of LV
    - I.e LV should make up majority of the apex

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4. Subcostal 4 chamber (SC4C)

**Patient position**
- Supine
- +/- flexed knees

**Probe position**
- Hand moved on top of probe
- Probe under xiphoid process
- Marker at 2-3 o’clock position
- Increase depth to ~20-24cm

**Structures visualised**
- Liver
- LA, MV, LV
- RA, TV, RV
5. Subcostal IVC (SC IVC)

**Patient position**
- Supine
- +/- flexed knees

**Probe position**
- Marker rotated 90° anticlockwise
  - 12 o’clock position

**Structures visualised**
- Liver
- IVC
- RA

6. Lung bases

**Patient position**
- Supine/ sat up

**Probe position**
- Posterior axillary line
- 6th intercostal space
- Marker at 12 o’clock position

**Structures visualised**
- Lung base
- Diaphragm
- Liver/spleen
Probe movements

Movements of the probe

SLIDING
- Moving the entire probe in its current orientation around the torso

ROTATION
- Twisting the probe around the axis of the handle

ROCKING
- Altering the position of contact by ‘rocking’ along the long axis of the probe

TILTING
- Altering the position of contact by ‘tilting’ along the short axis of the probe

Practical points

Completing a scan
1. Enter patient details
2. Connect ECG
3. Acquire images in image loop
4. Archive images
5. Complete standard reporting form (in pack)
6. FICE mentor to review and sign log book

Improving images
1. Optimise patient position
2. Probe position
3. Adequate gel

Image optimisation
1. Reduce depth and width to minimum required to visualise target structures
2. Alter focus point
3. Adjust contrast (overall gain or time-gain compensation at different depths)

For more information and resources visit: www.criticalcareecho.com

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March 2018