

Echocardiography

Dr Niamh Kilcullen

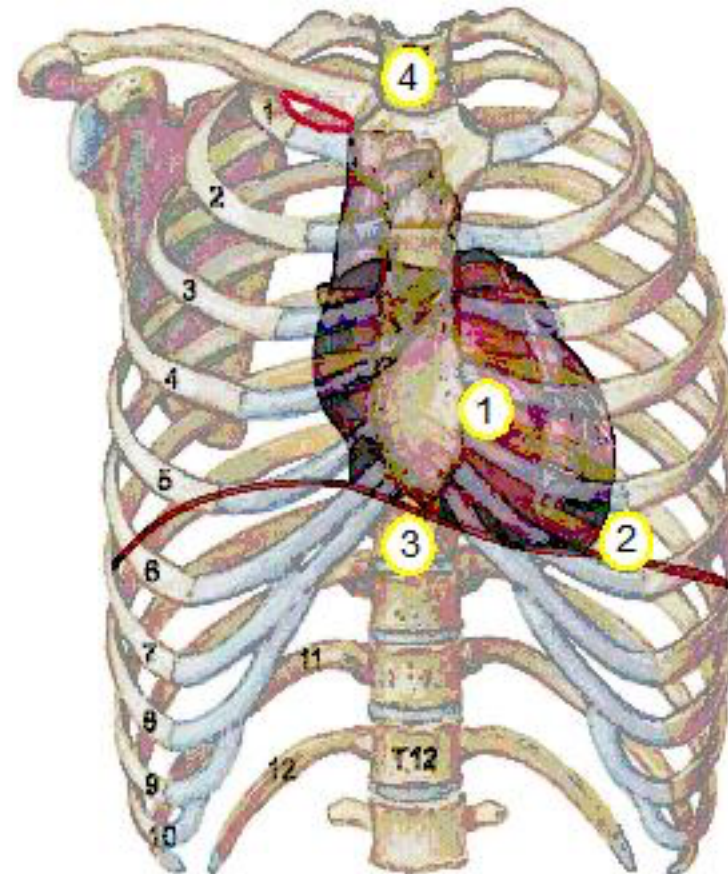
Transthoracic Echo

- Non-invasive
- No radiation
- Accessible - easily performed at bedside, A&E, ICU
- Anatomical / haemodynamic information
- Guides management ie. PCI, thrombolysis in PE, pericardiocentesis in cardiac tamponade

TTE



Acoustic Windows



1. Parasternal

2. Apical

3. Subcostal

4. Suprasternal Notch

Parasternal long axis

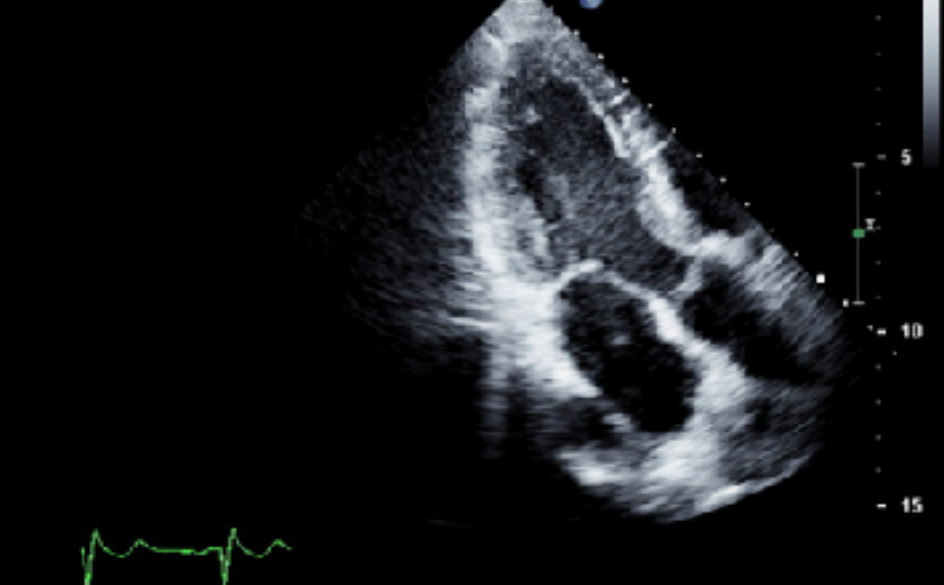
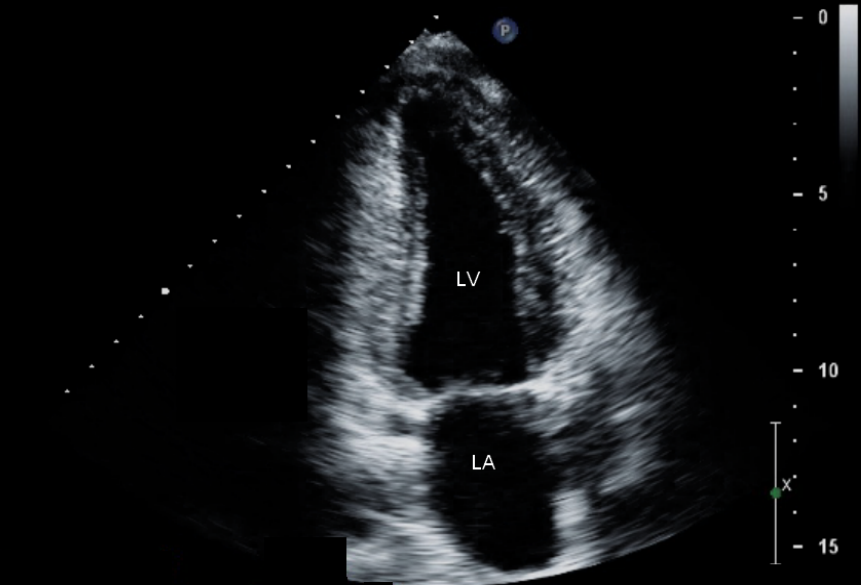
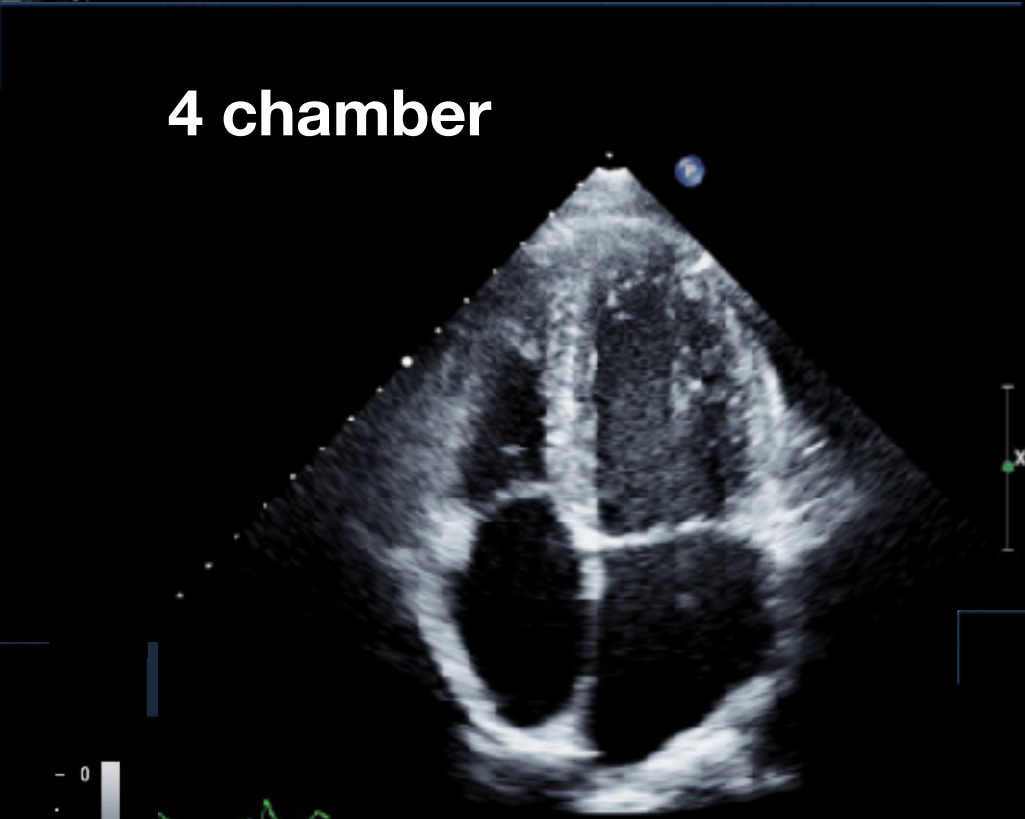
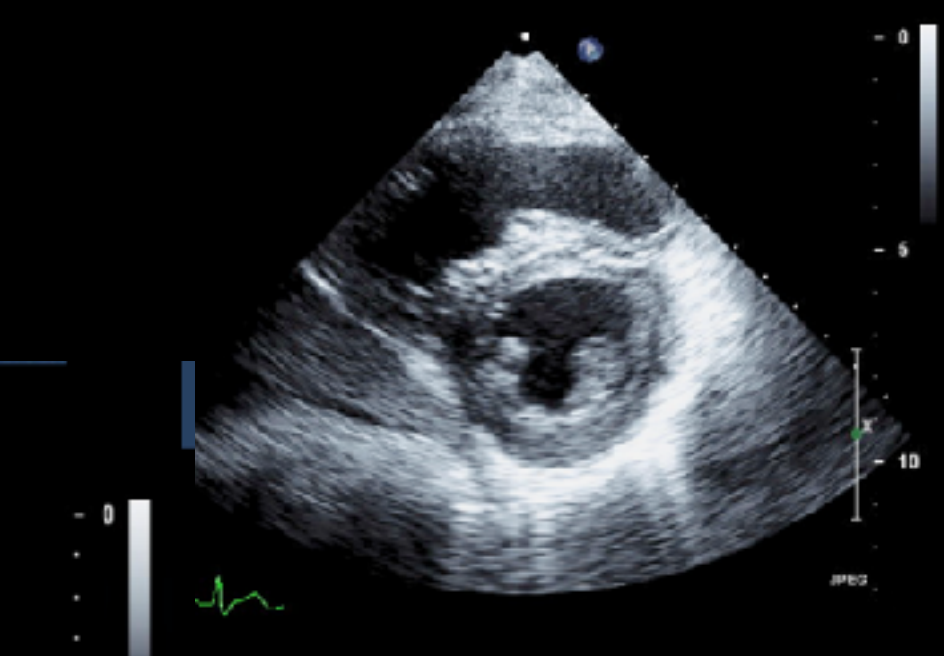
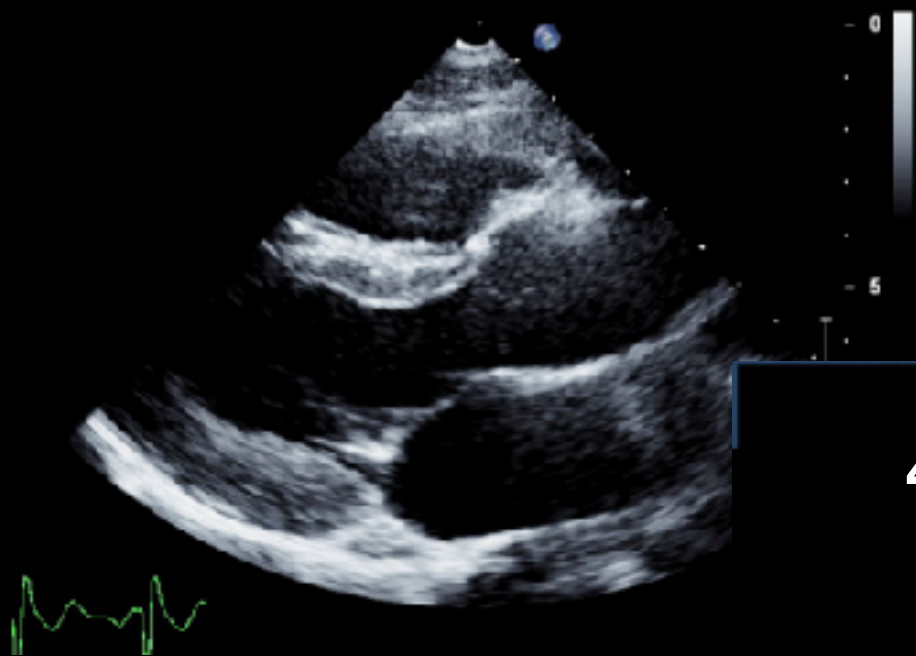
Parasternal short axis

TTE

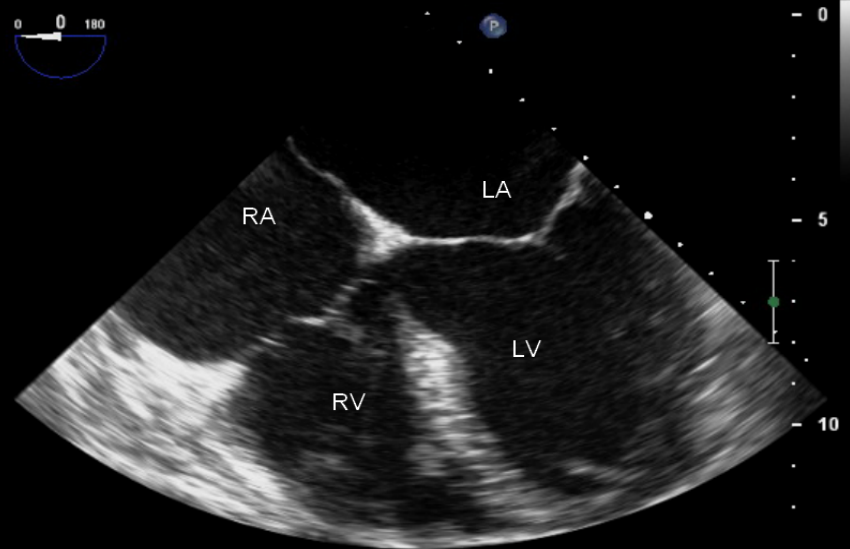
4 chamber

2 chamber

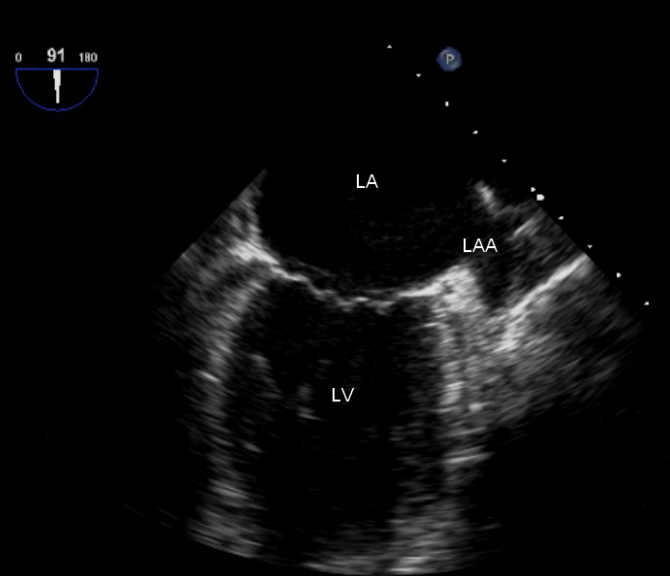
3 chamber



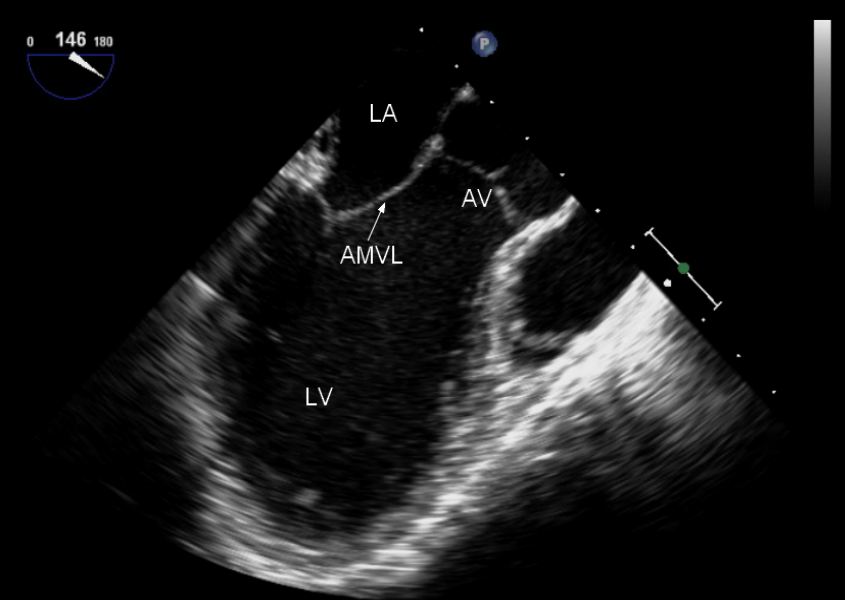
4 chamber



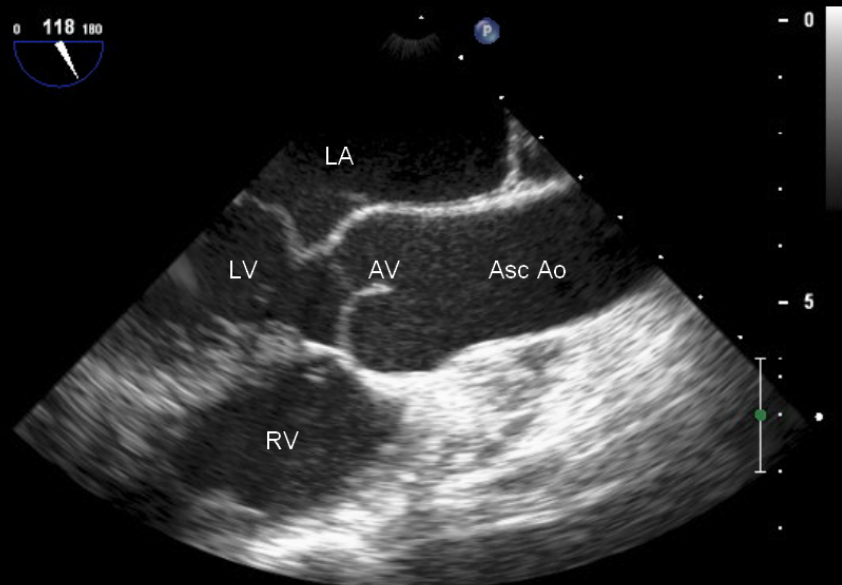
2 chamber



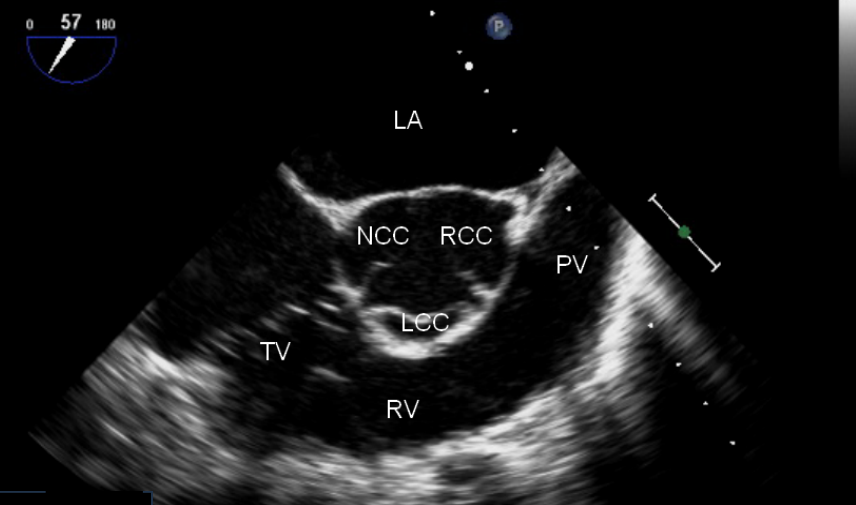
3 chamber



AV

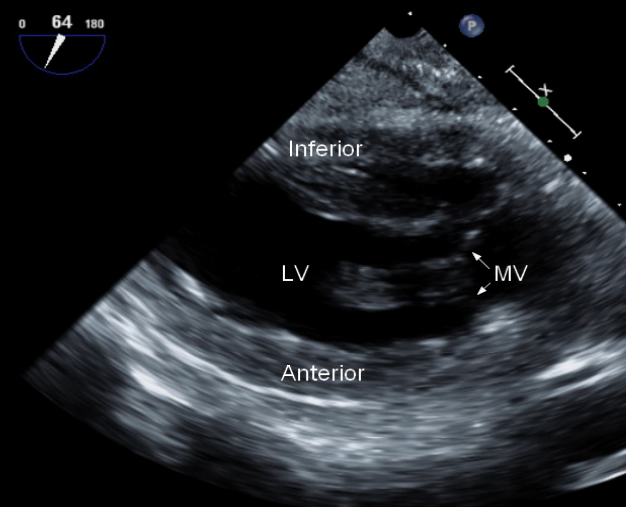


AV

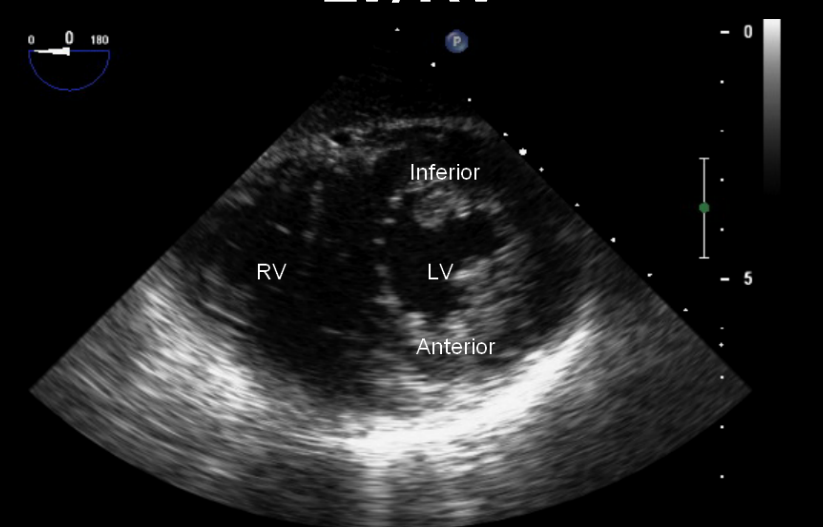


TOE

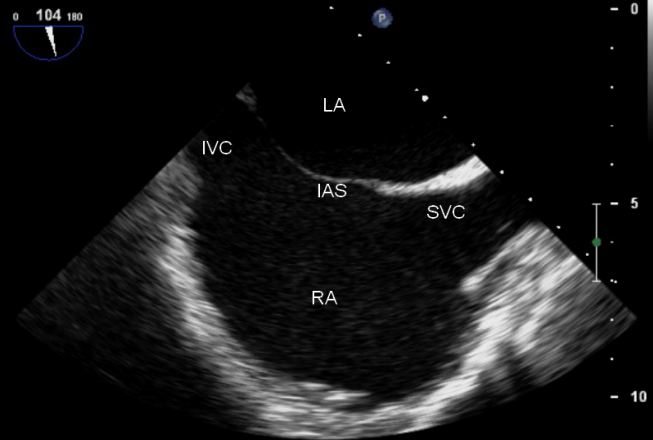
Transgastric LV



LV/RV



Interatrial septum



Indications for TTE

- Evaluate chamber size & function
- Evaluate valve function
- Estimate systolic pulmonary artery pressure
- Evaluate intracardiac shunt (PFO / ASD / VSD)
- Evaluate aortic root / aorta / IVC
- Evaluate pericardium

Indications for TOE

- Evaluate valves - (left sided > right sided)
- Evaluate masses / indwelling catheters / Pacing / defibrillator leads
- Evaluate inter-atrial septum ?shunt
- Exclude intracardiac thrombus
- Guide invasive procedures (ASD /PFO closure, TAVI, MV clip)