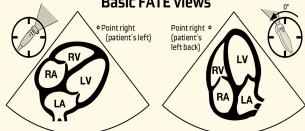


Focus Assessed Transthoracic Echo (FATE)

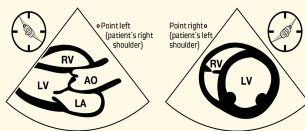
Scanning through position 1-4 in the most favourable sequence

Basic FATE views



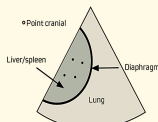
Pos 1: Subcostal 4-chamber

Pos 2: Apical 4-chamber

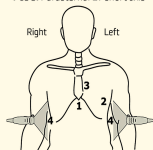


Pos 3: Parasternal long axis

Pos 3: Parasternal LV short axis



Pos 4: Pleural scanning



Focus Assessed Transthoracic Echo (FATE)

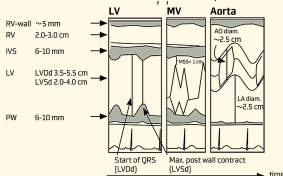
(European Journal of Anaesthesiology 2004; 21: 700-707)

1. Look for obvious pathology
2. Assess wall thickness + chamber dimensions
3. Assess bi-ventricular function
4. Image pleura on both sides
5. Relate the information to the clinical context
6. Apply additional ultrasound

Dimensions and contractility:

$$FS = \frac{(LVd - LVsd)}{LVd} \times 100$$

EF = 2 x FS

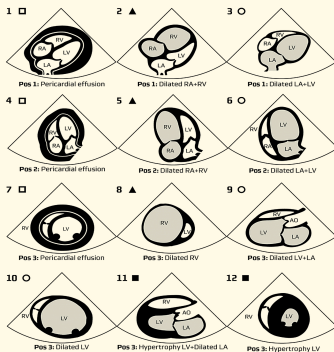


The global function of the heart is determined by the interaction between:

Right ventricle	Left Ventricle
Systole: Preload	Systole: Preload
Diastole: Compliance	Diastole: Compliance
Afterload	Afterload
Relaxation	Relaxation
Contractility	Contractility
Heart rate	Heart rate

Hemodynamic instability, perform a systematic evaluation of these determinants plus concomitant pathology: (e.g. pericardial effusion, pulmonary embolus, pleural effusion, pneumothorax, valvulopathy, dissection, defects)

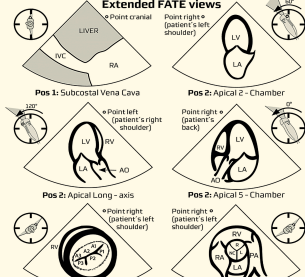
Important pathology



PATHOLOGY TO BE CONSIDERED IN PARTICULAR:

- Post OP cardiac surgery, following cardiac catheterisation, trauma, renal failure, infection.
- Pulmonary embolus, RV infarction, pulmonary hypertension, volume overload.
- Ischemic heart disease, dilated cardiomyopathy, sepsis, volume overload, aortic insufficiency.
- Aortic stenosis, arterial hypertension, LV outflow tract obstruction, hypertrophic cardiomyopathy, myocardial deposit diseases.

Extended FATE views



Pos 3: Parasternal short axis mitral plane

Pos 3: Parasternal aorta short axis

CW: Peak pressure: Vx < 40 < 2 m/s; PA < 1 m/s; T1 < 2.5 m/s

PW: Mitral inflow desc. time 140 - 240 ms; MAx E + 1.2 m/s; E/A > 1 (Age dependent)

TVL E/e < 8-10; IVC < 20 mm; 50% collapse during inspiration is normal

Systolic Ventricular Function					
Ventricle	M-Mode	Normal	Mild ↓	Moderately ↓	Severely ↓
LV Pos 3, PS long	EF (%)	≥ 55	45-54	30-44	< 30
LV Pos 3, PS long	FS (%)	≥ 25	20-24	15-19	< 15
LV Pos 3, PS long	MSS (mm)	< 10	7-12	13-24	> 24
LV Pos 2, AP 4ch	Myase (mm)	≥ 11	9-10	6-8	< 6
RV Pos 2, AP 4ch	Tapse (mm)	16-20	11-15	6-10	< 6

Right and left ventricle Eye Balling use all views