GO
BEYOND
THE BLOCK

FATE: Focused Assessment Transthoracic Echo in Perioperative Anaesthesia

- FATE is a focused transthoracic echo protocol that can be applied to all clinical scenarios within perioperative medicine to aid in the assessment of cardiac function. This guide will demonstrate transducer placement, ultrasound views, and tips on how to perform this exam.

RECOMMENDED TRANSDUCER:

- Phased array transducer using the cardiac exam type

CLINICAL APPLICATIONS:

- Assess cardiac activity during cardiac arrest
- Identify pericardial effusion or tamponade
- Estimate left ventricular function and/or contractility
- haemodynamic assessment and monitoring
- Identify unknown cardiopulmonary pathology

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Using the FATE exam, the contractility of the heart is assessed by visualising the left ventricular (LV) muscle and chamber during both systole and diastole. During systole, the LV muscle thickens and the chamber size decreases. While in diastole, the muscle thins and the chamber size increases. M-Mode (motion mode), allows for a more detailed assessment of cardiac function, and the ability to efficiently calculate ejection fraction.

**Probe placements**   **Clinical images**
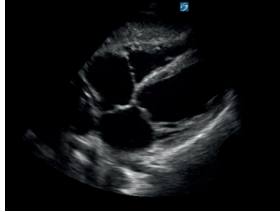
CARDIAC SUBCOSTAL VIEW

Identify the liver and cardiac structures, including RV, LV, RA, LA, and pericardial sac. Aim the transducer towards the patient's left shoulder, keeping the orientation marker at the 3 o'clock position. Look for any free fluid in the pericardial space. Best view for quick assessment of cardiac activity during CPR.


PARASTERNAL LONG AXIS VIEW

Identify the RV, LV and LA. Position the transducer perpendicular to the left side of the chest, at the 4-6 parasternal space. Keep the transducer orientation towards the patient's right shoulder with the orientation marker at the 9-11 o'clock position. Best view for LV function, size, and visualisation of effusions.
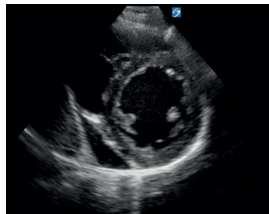
PARASTERNAL SHORT AXIS VIEW

Identify the RV and LV at the papillary muscle level. From a PLAX view, rotate the transducer 90 degrees clockwise, keeping the orientation marker in the 1-2 o'clock position. Best view to visualise global wall motion, contractility, LV size and wall thickness.
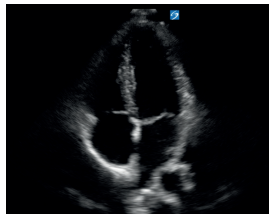
APICAL 4 CHAMBER

Identify all chambers with the transducer aimed towards the patient's right axilla, keeping the orientation marker towards the 3 o'clock position. Best view to visualise valves and chamber size.