





# **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



# **FATE EXAM: PERIOPERATIVE**



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.

This material is intended for healthcare professionals and not for patients or consumers. The information in this material is provided for general educational purposes, as a convenient quick reference and a supplement to professional experience, education and training, and should not be considered the exclusive source for this type of information. This material does not replace or supersede device labeling, including instructions for use, which accompanies any FUJIFILM Sonosite product. At all times, it is the professional responsibility of the practitioner to exercise independent clinical judgment in each particular situation. Fujifilm assumes no responsibility or lability for any misuse of this material.

SONOSITE and the SONOSITE logo are registered and unregistered trademarks of FUJIFILM Sonosite, Inc. in various jurisdictions. FUJIFILM is a registered trademark of FUJIFILM Corporation in various jurisdictions. All other trademarks are the property of their respective owners.