

ONE
Aquilion



CT Protocol for TMVR

Parameter	Recommendation
Premedication	Not required
Gating	Retrospectively ECG gated
Acquisition timing	Data acquisition throughout entire cardiac cycle reconstructed at every 5% of the R-R interval
Contrast material	Triphasic protocol with high-concentration iodinated contrast material (>350 mg of iodine/mL) An example protocol: (a) 50–70 mL of 100% contrast material administered at high flow rate (~5 mL/sec); (b) 50–70 mL of contrast material (saline mixture [50:50 or 60:40]) administered at the same high flow rate as noted previously or 50 mL of 100% contrast material administered at a slower flow rate (2–3 mL/sec); and (c) administration of a 50-mL saline chaser
Scan trigger	Bolus tracking with the ROI on the ascending aorta; once the ROI is greater than 150 HU, provide breathing instructions and scan
Breathing instructions	Inspiratory breath hold
Coverage	Carina to diaphragm
Field of view	Whole heart (including chest wall)
Resolution	High spatial and high temporal resolution
Radiation reduction	Appropriate scan length Lowest possible kilovolt peak and milliampere-second setting Anatomic tube current modulation; avoid using the ECG-based tube current modulation Iterative reconstruction algorithms