

CT Recommendations for Transcatheter Aortic Valve Procedures

AORTIC VALVE SCAN:

Anatomy	• Cardiac ECG-assisted data acquisition of the heart and aortic root (usually beginning 2 cm below the carina). • The ideal scan provides at least systolic images free of artifact.
Contrast	• Contrast enhancement is required and should allow for proper delineation of the aortic root and valve complex. • Injection of 60-100 mLs contrast media at a rate of at least 3-4 mL/sec.
Slice Thickness	• ≤ 0.75 mm preferred.
Imaging Phase	• Data acquisition should cover at least systole. Maximum area is determined by evaluating the aortic annulus in 5 – 10% increments, typically within 25 – 45% of the R – R interval. • Edwards sizing charts are based on maximum systolic dimensions. • Gated study required: Retrospective ECG-gating preferred for non-volume scanners; ECG-gating with one beat acquisition for volume scanners with whole heart coverage
Dose Modulation	• Ideally dose modulation should be switched off to allow for data acquisition with peak tube current throughout the entire cardiac cycle; however, if utilized, it is recommended that dose modulation be used only in diastole and lowered to 20% – 30% of peak dose.

VASCULAR ACCESS SCAN:

Anatomy	• Non-ECG assisted CTA of the thorax, abdomen, and pelvis.
Contrast	• Contrast enhancement is recommended; this scan is usually acquired as a run-off from the prior aortic valve scan.
Slice Thickness	• ≤ 1.5 mm preferred.

This reference card is provided as an educational resource to medical personnel by Edwards Lifesciences (the "Author"). The information in this reference card has been compiled from then-currently available literature. Although every effort has been made to faithfully report the information and keep it up to date, the Author cannot be held responsible for the completeness or accuracy. This reference card is not intended to be and should not be construed as medical advice. For any use, the product information guides, inserts, and operation manuals of the drugs and devices should be consulted. Edwards Lifesciences, and their respective affiliates disclaim any liability arising directly or indirectly from the use of drugs, devices, techniques, or procedures described in this reference card.

WARNING: Any reference to X-ray exposure, intravenous contrast dosage, and other medication is intended as a reference guideline only. The guidelines in this document do not substitute for the judgment of a health care provider. Each scan requires medical judgment by the health care provider about exposing the patient to ionizing radiation. Use the As Low As Reasonably Achievable (ALARA) radiation dose principle to balance factors such as the patient's condition, size, and age; region to be imaged; and diagnostic task.

NOTE: Algorithms/protocols included in this reference card are for educational reference only. The authors do not endorse or support any one specific algorithm/protocol. It is up to each individual clinician and institution to select the treatment that is most appropriate.

Philipp Blanke, MD is a paid consultant for Edwards Lifesciences

Edwards, Edwards Lifesciences, and the stylized E logo are trademarks of Edwards Lifesciences Corporation or its affiliates.

All other trademarks are the property of their respective owners.

© 2021 Edwards Lifesciences Corporation. All rights reserved. DOC-0181404 Rev A

Edwards Lifesciences • One Edwards Way, Irvine, CA 92614 USA • edwards.com



Edwards