

CTA Pulmonary Vein

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In accordance with the ALARA principle, TRA policies and protocols promote the utilization of radiation dose reduction techniques for all CT examinations. For scanner/protocol combinations that allow for the use of automated exposure control and/or iterative reconstruction algorithms while maintaining diagnostic image quality, those techniques can be employed when appropriate. For examinations that require manual or fixed mA/kV settings as a result of individual patient or scanner/protocol specific factors, technologists are empowered and encouraged to adjust mA, kV or other scan parameters based on patient size (including such variables as height, weight, body mass index and/or lateral width) with the goals of reducing radiation dose and maintaining diagnostic image quality.

Indications: atrial fibrillation, pre PVI planning, pre-Watchman, pulmonary vein stenosis, etc.

Breathing instructions: End expiration

Contrast: Same as coronary CTA, w/ exception of flow rate of 4cc/sec

Arterial IV Contrast

- Scan from carina to diaphragm
- Trigger bolus in ascending aorta w/ threshold of 50 - 100 HU
- Scanner specific retrospective gating with dose modulation, or prospective gating targeting end systole

Delay

- Scan upper half of arterial field (carina to mid heart) to get delayed look at left atrial appendage
- Acquire approximately 10 sec after arterial scan finishes

Reconstructions

- 1x1 mm source axial coned down FOV (vascular kernel) AUTOROUTE TO TERA RECON
- 2x2 mm full FOV axial (soft tissue kernel)
- 2x2 mm sagittal full FOV reformat soft tissue of arterial phase
- 2x2 mm coronal full FOV reformat soft tissue of arterial phase
- 10x2 axial full FOV MIPS (soft tissue kernel)
- multiphase 0 - 90% 2mm of heart in increments of 10%
- 1mm axial delay