# RIH – CTA FOR PULMONARY EMBOLISM
# GE LIGHTSPEED VCT PROTOCOL

**Indications: Evaluation for suspected pulmonary artery embolism**

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|---|---|
| **Position/Landmark** | Head first or feet first-Supine<br>Sternal Notch |
| **Topogram Direction** | Craniocaudal |
| **Respiratory Phase** | Suspension of Respiration (not Inspiration) |
| **Scan Type** | Helical |
| **KV / mA / Rotation time (sec)**<br>**Pitch / Speed (mm/rotation)**<br>**Noise Index / ASiR / Dose Reduction** | Maximum lateral diameter **< 48 cm**<br>**100kv** / smart mA (120-450) / 0.5 sec<br>0.984:1 , 39.37mm<br>**16.5** / 70 / 30% |
| **KV / mA / Rotation time (sec)**<br>**Pitch / Speed (mm/rotation)**<br>**Noise Index / ASiR / Dose Reduction** | Maximum lateral diameter **> 48 cm**<br>**120kv** / smart mA (120-500) / 0.5 sec<br>.984:1 , 39.37mm<br>**14.5** / 70 / 30% |
| **Detector width x Rows = Beam Collimation** | 0.625mm x 64 = 40mm |
| **Average Tube Output** | ctdi – 8.9 mGy<br>dlp – 347 mGy.cm |
| **Helical Set**<br>Slice Thickness/ Spacing<br>Algorithm<br>Recon Destination | recon / body part / thickness/ spacing / algorithm / recon destination .<br>1 / **pe cta** / 2.5mm x 2.5mm / standard / pacs<br>2 / thin chest / .6mm x .6mm / standard / for dmpr<br>3 / **lung** / 5mm x 5mm / lung / pacs |
| **Scan Start / End Locations**<br><br>**DFOV** | 1cm superior to lung apices<br>1cm inferior to costophrenic angles<br><br>38cm<br>decrease appropriately |
| **IV Contrast Volume / Type / Rate** | 100 mL Iopamidol (Isovue 370) / 4 mL per second |
| **Scan Delay** | 22 seconds |
| **2D/3D Technique Used** | DMPR of 2.5mm x 2.5mm **coronal chest** series (auto-batch on), mip mode, auto-transferred to PACS. |
| **Comments:** Helical scan direction for pe cta is from top to bottom. Recon 1 is a standard 2.5mm algorithm for vasculature. Recon 2 is a single thin helical group of the chest for direct mpr. Recon 3 is a lung algorithm. | |
| **Images required in PACS** | Scouts, 2.5mm x 2.5mm axial pe cta, 2.5mm x 2.5mm coronal chest mip, 5mm x 5mm axial lungs, Dose Report |

updated Jan 23, 2017