

**RIH – CHEST CTA  
GE LIGHTSPEED VCT PROTOCOL**

**Indications: Evaluation of the thoracic aorta**

<b>Position/Landmark</b>	Head first or feet first-Supine Sternal Notch				
<b>Topogram Direction</b>	Craniocaudal				
<b>Respiratory Phase</b>	Inspiration				
<b>Scan Type</b>	Helical				
<b>KV / mA / Rotation time (sec)</b> <b>Pitch / Speed (mm/rotation)</b> <b>Noise Index / ASiR / Dose Reduction</b>	120kv / smart mA (120-450) / 0.5 sec 0.984:1 , 39.37mm 16.0 / 70 / 30%				
<b>Detector width x Rows = Beam Collimation</b>	0.625mm x 64 = 40mm				
<b>Average Tube Output</b>	ctdi – 9.3 mGy dlp – 345 mGy.cm				
<b>Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	<u>recon</u>	<u>body part</u>	<u>thickness/ spacing</u>	<u>algorithm</u>	<u>recon destination .</u>
	1	<b>arterial chest</b>	2.5mm x 2.5mm	standard	pac
	2	thin chest	.6mm x .6mm	standard	for dmpr
	3	<b>lungs</b>	5mm x 5mm	lung	pac
<b>Scan Start / End Locations</b>	1cm superior to lung apices mid kidney				
<b>DFOV</b>	38cm decrease appropriately				
<b>IV Contrast Volume / Type / Rate</b>	100mL Iohexol (Omnipaque 350) / 4mL per second				
<b>Scan Delay</b>	Smart prep at the aortic arch				
<b>2D/3D Technique Used</b>	DMPR of 2mm x 2mm <b>coronal arterial chest</b> series (auto-batch on), mip mode, auto-transferred to PACS.				
<b>Comments:</b>	The smart prep threshold for the arterial phase is +100 hu at the aortic arch				
<b>Images required in PACS</b>	Scouts, 2.5mm x 2.5mm axial arterial chest, 5mm x 5mm coronal arterial chest, 5mm x 5mm axial lungs, Dose Report				