RIH – CHEST FOR THORACIC AORTA ANEURYSM REPAIR
GE LIGHTSPEED VCT PROTOCOL

Indications: Evaluate patentcy of stent graft, to determine thrombosis of excluded portion of aorta, and to look for endovascular leaks.

Position/Landmark	Head first or feet first-Supine Sternal Notch				
Topogram Direction	Craniocaudal				
Respiratory Phase	Inspiration				
Scan Type	Helical				
KV / mA / Rotation time (sec) **Pitch / Speed (mm/rotation)** **Noise Index / ASiR / Dose Reduction**	120kv / smart mA (100-450) / 0.5 sec 0.984:1 , 39.37mm 11.0 nc and 16.0 contrast / 70 / 30%				
Detector width x Rows = Beam Collimation	0.625mm x 64 = 40mm				
Average Tube Output	Each Helical: ctdi – 9.3 mGy dlp – 345 mGy.cm				
First Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	algorithm	recon destination .
	1	**non con chest**	5mm x 5mm	standard	pacs
	2	lung	5mm x 5mm	lung	pacs
Second Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	algorithm	recon destination .
	1	**arterial chest**	2.5mm x 2.5mm	standard	pacs
	2	thin chest	.6mm x .6mm	standard	for dmpr
Third Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	algorithm	recon destination .
	1	**delayed chest**	2.5mm x 2.5mm	standard	pacs
	2	thin chest	.6mm x .6mm	standard	for dmpr
Scan Start / End Locations **DFOV**	1cm superior to lung apices mid kidney 38cm decrease appropriately				
IV Contrast Volume / Type / Rate	100mL Iohexol (Omnipaque 350) / 4mL per second				
Scan Delay	Arterial smart prep	Delayed 120 seconds			
2D/3D Technique Used	DMPR of 5mm x 5mm **coronal chest** series of the arterial and delayed phases (auto-batch on), mip mode, auto-transferred to PACS.				
Comments: This protocol is a non contrast, then arterial phase, then delayed phase of the chest to assess thoracic aorta aneurysm repair. The smart prep threshold for the arterial phase is +100 hu at the proximal thoracic aorta.					
Images required in PACS	Scouts, 5mm x 5mm axial non con chest, 5mm x 5mm axial non con lungs, 2.5mm x 2.5mm axial arterial chest, 5mm x 5mm coronal arterial chest, 2.5mm x 2.5mm axial delayed chest, 5mm x 5mm coronal delayed chest, Dose Report				

updated Jan 23, 2017