

# RIH – CTA NECK CHEST ABDOMEN FOR DISSECTION GE LIGHTSPEED VCT PROTOCOL

**Indications: Suspicion for carotid or aortic dissection**

<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 mGy dlp – 763 mGy.cm																									
<b>Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">body part</th> <th style="text-align: center;">thickness/ spacing</th> <th style="text-align: center;">algorithm</th> <th style="text-align: center;">recon destination</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>thin neck chest/abdomen</td> <td>.6mm x .6mm</td> <td>standard</td> <td>for dmpr</td> </tr> <tr> <td>2</td> <td><b>axial neck cta</b></td> <td>2.5mm x 2.5mm</td> <td>standard</td> <td>pac</td> </tr> <tr> <td>3</td> <td><b>axial aorta cta</b></td> <td>2.5mm x 2.5mm</td> <td>standard</td> <td>pac</td> </tr> <tr> <td>4</td> <td><b>lungs</b></td> <td>5mm x 5mm</td> <td>lung</td> <td>pac</td> </tr> </tbody> </table>		body part	thickness/ spacing	algorithm	recon destination	1	thin neck chest/abdomen	.6mm x .6mm	standard	for dmpr	2	<b>axial neck cta</b>	2.5mm x 2.5mm	standard	pac	3	<b>axial aorta cta</b>	2.5mm x 2.5mm	standard	pac	4	<b>lungs</b>	5mm x 5mm	lung	pac
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<b>Scan Start / End Locations</b>  <b>DFOV</b>	external auditory meatus through aortic bifurcation (level of S1)  neck 18cm chest abdomen 38cm decrease appropriately																									
<b>IV Contrast Volume / Type / Rate</b>	100mL Iohexol (Omnipaque 350) / 4mL per second																									
<b>Scan Delay</b>	Smart Prep at descending thoracic aorta at level of carina																									
<b>2D/3D Technique Used</b>	<b>Sagittal/oblique and coronal carotid reformats</b> , 2.0mm x 2.0mm, mip mode.  5mm x 5mm mip <b>coronal chest/abdomen</b> series, 2mm x 2mm mip <b>sagittal oblique aorta</b> series																									
<b>Comments:</b>	The smart prep threshold is +80 HU.																									
<b>Images required in PACS</b>	Scouts, 2.5mm x 2.5mm axial carotid cta, 2mm x 2mm coronal and sagittal/oblique carotid mips, 2.5mm x 2.5mm axial arterial chest abdomen, 5mm x 5mm coronal chest and abdomen, 2mm x 2mm sagittal oblique aorta, 5mm x 5mm axial lungs, Dose Report																									