RIH – NECK CTA, CHEST ABDOMEN PELVIS RUN OFF
GE LIGHTSPEED VCT PROTOCOL

Position/Landmark	Head 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 (100-550) / 0.7 sec 1.375:1 , 55.00mm 9.0 / 30 / 30%
Detector width x Rows = Beam Collimation	0.625mm x 64 = 40mm
Average Tube Output	ctdi – 15.3mGy dlp – 1848 mGy.cm
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon / body part / thickness/ spacing / algorithm / recon destination . 1 total body 2.5mm x 2.5mm standard pacs 2 thin body .6mm x .6mm soft for mpr 3 thin body .6mm x .6mm bone for mpr
Scan Start / End Locations **DFOV**	2cm superior to sella tursica through the feet 38cm decrease appropriately
IV Contrast Volume / Type / Rate	80mL Iohexol (Omnipaque 350) / 3mL per second 15mL saline / 3mL per second **start monitoring scans at this point** 100mL Iohexol (Omnipaque 350) / 4mL per second 40mL saline / 4mL per second
Scan Delay	smart prep at aortic arch, the trigger is +200 HU
2D/3D Technique Used	From Recon2: 2mm x 2mm left sagittal/oblique carotid, 2mm x 2mm right sagittal/oblique carotid, 2mm x 2mm coronal carotids, 2mm x 2mm axial small fov carotids, 5mm x 5mm coronal chest abdomen pelvis, 3mm x 3mm coronal lower extremities. Recon 3 is a thin bone volume incase spines are ordered.

Comments: 80cc of contrast is pre injected to be able to evaluate for solid organ injury. The second 100cc is injected immediately after the first injection is completed to perform a smart prepped total body ct angiogram.

1. Perform pre-monitoring scan at the aortic arch, Place the ROI in the arch
2. Inject the 80mL Iohexol (Omnipaque 350) pre-scan contrast
3. As soon as the power injector hold begins, inject the CTA contrast and begin the monitoring phase/smart prep ct angiogram.

The noise index is lowered to 9.0 and the max mA is raised to 550 because the patient is typically scanned with arms down.

Images required in PACS	Scouts, 2.5mm x 2.5mm axial total body, 2mm x 2mm left sagittal/oblique carotid, 2mm x 2mm right sagittal/oblique carotid, 2mm x 2mm coronal carotids, 2mm x 2mm axial small fov carotids, 5mm x 5mm coronal chest abdomen pelvis, 5mm x 5mm axial lungs, 3mm x 3mm coronal lower extremities, Dose Report