RIH – TOTAL BODY ANGIO / SOLID ORGAN INJURY FOR TRAUMA
SIEMENS DEFINITION AS20 PROTOCOL

Position/Landmark	Head first or feet first-Supine 1cm superior to skull vertex
Topogram Direction	Craniocaudal / Craniocaudal
Scan Type	Helical
Ref kV/Ref mAs/Rotation time (sec) **Pitch / Speed (mm/rotation)** **Safire Strength / Dose Optimization**	5sec Care kV 120 / Care Dose4D 210 / 0.5sec 1.2:1 , 15.00mm 3 / 6
Detector width x Rows = Beam Collimation	0.625mm x 20 = 12.5mm
Average Tube Output	11.0mGy dlp – 1456 mGy.cm
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon / body part / thickness/ spacing / algorithm / recon destination . 1 **total body ct angio** 2mm x 2mm B30s medium pacs 2 **axial chest abd pelvis** 5mm x 5mm I40f medium pacs 3 **axial t and l spine** 3mm x 3mm I70f very sharp pacs 4 **lungs** 5mm x 5mm I70f very sharp pacs 5 **coronal chest abd pelvis** 5mm x 5mm I40f medium pacs 6 thin body ct angio .75mm x .7mm B30s medium mpr 7 thin t and l spine .75mm x .7mm I70f very sharp mpr
Scan Start / End Locations **DFOV**	1cm superior to skull through the toes 38cm decrease appropriately
IV Contrast Volume / Type / Rate	Hand inject 30mL Iohexol (Omnipaque 350) then wait 5 minutes 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	bolus tracking at aortic arch, the trigger is +150 HU
2D/3D Technique Used	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 7 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. Hand inject 30mL Iohexol (Omnipaque 350)
2. Perform scout images
3. Plan all three recons
4. Perform pre-monitoring scan at the aortic arch, Place the ROI in the arch
5. Inject the 80mL Iohexol (Omnipaque 350) pre-scan contrast

As soon as the power injector hold begins, inject the CTA contrast and begin the monitoring phase ct angiogram.

Images required in PACS	Topograms, 2mm x 2mm axial cta chest to toes, 2mm x 2mm axial carotid cta, 2mm x 2mm left sagittal/oblique carotid, 2mm x 2mm right sagittal/oblique carotid, 2mm x 2mm coronal carotids, 5mm x 5mm coronal chest abdomen pelvis, 5mm x 5mm axial lungs, 3mm x 3mm axial coronal and sagittal cervical, thoracic and lumbar spines, 3mm x 3mm coronal lower extremity cta, Patient Protocol