

**RIH – CT ANGIOGRAM ABDOMEN/PELVIS S/P REPAIR GRAFT  
SIEMENS DEFINITION AS+ PROTOCOL**

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

<b>Position/Landmark</b>	Head first or feet first-Supine Sternal Notch				
<b>Topogram Direction</b>	Craniocaudal / Craniocaudal				
<b>Respiratory Phase</b>	Inspiration				
<b>Scan Type</b>	Helical				
<b>Ref kV/Ref mAs/Rotation time (sec)</b>	Care kV 120 / Care Dose4D 180 / 0.5 sec				
<b>Pitch / Speed (mm/rotation)</b>	1.2:1 , 32.00mm				
<b>Safire Strength / Dose Optimization</b>	3 / 8				
<b>Detector width x Rows = Beam Collimation</b>	0.625mm x 64 = 40mm (128 x .6mm)				
<b>Average Tube Output</b>	ctdi – 10.0mGy dlp – 500mGy.cm				
<b>First Helical Set</b> Slice Thickness/ Spacing Algorithm <b>Recon Destination</b>	recon	body part	thickness/ spacing	algorithm	recon destination .
		1 nc abdomen/pelvis	5mm x 5mm	I40f medium	pacs
		2 coronal nc abd/pelvis	5mm x 5mm	I40f medium	pacs
		3 thin abd/pelvis	.75mm x .6mm	I40f medium	terarecon
<b>Second Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	algorithm	recon destination .
		1 axial ct angio	3mm x 3mm	I26f medium smooth	pacs
		2 coronal ct angio	3mm x 3mm	I26f medium smooth	pacs
		3 sagittal ct angio	3mm x 3mm	I26f medium smooth	pacs
		4 thin ct angio	.75mm x .6mm	I26f medium smooth	terarecon
<b>Third Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	algorithm	recon destination .
		1 axial ct angio	3mm x 3mm	I26f medium smooth	pacs
		2 coronal ct angio	3mm x 3mm	I26f medium smooth	pacs
		3 sagittal ct angio	3mm x 3mm	I26f medium smooth	pacs
		4 thin ct angio	.75mm x .6mm	I26f medium smooth	terarecon
<b>Scan Start / End Locations</b>	1 cm superior to diaphragm lesser trochanters 38cm decrease appropriately				
<b>DFOV</b>					
<b>IV Contrast Volume / Type / Rate</b>	100mL Iohexol (Omnipaque 350) 4mL/sec				
<b>Scan Delay</b>	Bolus tracking at level of celiac artery				
<b>2D/3D Technique Used</b>	Workstream 4D mpr of 3mm x 3mm <b>sagittal and coronal ct angiogram</b> series, auto-transferred to PACS.				
<b>Comments:</b> Comments: A non-contrast study is done first. Then the cta is done using a smart prep at the level of the celiac artery. Note: There is a second helical scan done 60 seconds after the cta to look for subtle leak.					
<b>Images required in PACS</b>	Topograms, 3mm x 3mm axial ct angi abdomen pelvis, 3mm x 3mm coronal ct angi abdomen pelvis, 3mm x 3mm sagittal ct angi abdomen pelvis, Patient Protocol				