

## RIH – CHEST THREE PHASE LIVER PELVIS GE LIGHTSPEED VCT PROTOCOL

**Indications- Evaluation for mass, metastases, HCC, cirrhosis, hyper vascular liver lesions**

<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 (120-500) / 0.5 sec .984:1 , 39.37mm 11.0 / 70 / 20%			
<b>Detector width x Rows = Beam Collimation</b>	0.625mm x 64 = 40mm			
<b>Average Tube Output</b>	1 <sup>st</sup> /2 <sup>nd</sup> Helical: ctdi – 11.3 mGy dlp – 313 mGy.cm		Third Helical: ctdi – 10.7 mGy dlp – 866 mGy.cm	
<b>First Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	recon destination .
	1	<b>non con liver</b>	5mm x 5mm	standard pacs
	2	thin nc liver	.6mm x .6mm	standard for dmpr
<b>Second Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	recon destination .
	1	<b>arterial liver</b>	5mm x 5mm	standard pacs
	2	thin arterial liver	.6mm x .6mm	standard for dmpr
<b>Third Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part	thickness/ spacing	recon destination .
	1	<b>venous chest abd/pelvis</b>	5mm x 5mm	standard pacs
	2	thin venous c a p	.6mm x .6mm	standard for dmpr
	3	<b>lungs</b>	5mm x 5mm	lung pacs
<b>Scan Start / End Locations</b>  <b>DFOV</b>	non con / arterial 1 cm superior to diaphragm iliac crest (scan through entire liver) 38cm		venous 1cm superior to lung apicies lesser trochanters decrease appropriately	
<b>IV Contrast Volume / Type / Rate</b>	100mL Iohexol (Omnipaque 350) 4mL/sec When oral contrast is prescribed, refer to the appropriate oral contrast agent's preparation and procedure guide.			
<b>Scan Delay</b>	Non-Contrast -----	Arterial 40 seconds	Venous 60 seconds	
<b>2D/3D Technique Used</b>	DMPR of 5mm x 5mm <b>coronal series</b> (auto-batch on), average mode, auto-transferred to PACS of <b>each phase</b> .			
<b>Comments:</b> The second and third helical sets are two separate groups in series 4 called “arterial/venous chest liver”				
<b>Images required in PACS</b>	Scouts, 5mm x 5mm axial nc liver, 5mm x 5mm coronal nc liver, 5mm x 5mm axial arterial liver, 5mm x 5mm coronal arterial liver, 5mm x 5mm axial venous chest abdomen pelvis, 5mm x 5mm coronal venous chest abdomen pelvis, 5mm x 5mm lungs, Dose Report			