

RIH – CHEST THREE PHASE LIVER PELVIS GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL

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

Position/Landmark	Head first or feet 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 (100-440) / 0.5 sec 1.375:1 , 27.50mm 13.5 / 30 / 30%			
Detector width x Rows = Beam Collimation	1.25mm x 16 = 20mm			
Average Tube Output	1 st /2 nd Helical: ctdi – 17.3 mGy dlp – 413 mGy.cm		Third Helical: ctdi – 17.7 mGy dlp – 876 mGy.cm	
First Helical Set	recon	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	non con liver	5mm x 5mm	pacs
Algorithm	2	thin nc liver	1.25mm x .6mm	for dmpr
Recon Destination				
Second Helical Set	recon	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	arterial liver	5mm x 5mm	pacs
Algorithm	2	thin arterial liver	1.25mm x .6mm	for dmpr
Recon Destination				
Third Helical Set	recon	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	venous chest abd/pel	5mm x 5mm	pacs
Algorithm	2	thin venous c a p	1.25mm x .6mm	for dmpr
Recon Destination	3	lungs	5mm x 5mm	lung pacs
Scan Start / End Locations	NC / Arterial		Venous	
DFOV	1 cm superior to diaphragm iliac crest (scan through entire liver)		1cm superior to lung apicies lesser trochanters	
	38cm decrease appropriately			
IV Contrast Volume / Type / Rate	100cc omni 350 / 4cc per second			
Scan Delay	Non-Contrast -----	Arterial 40 seconds	Venous 60 seconds	
2D/3D Technique Used	DMPR of 5mm x 5mm coronal series (auto-batch on), average mode, auto-transferred to PACS of each phase.			
Comments:	The second and third helical sets are two separate groups in series 4 called “arterial/venous chest liver”			
Images required in PACS	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			