

CT Liver Protocol

GE- 6007

Maximum CTDI 75

Indication: Liver Mass, Hemangioma, Cirrhosis, Hepatocellular carcinoma (HCC), Hyper vascular mets

- Hepatocellular Carcinoma
- Focal Nodular Hyperplasia (FNH)
- Liver Adenoma
- Cirrhosis
- Hepatitis C
- Jaundice (not restricted jaundice)
- Liver Tumor as a general diagnosis

PT Prep: NO Oral
IV contrast – Yes (follow MCR IV contrast dosing guidelines)

Series 1: Scouts AP & LAT – Supine “O” at Xiphoid Process S20 to I400

Series 2: **Unenhanced** – Scan from Diaphragm through Liver

	750 HD (128) CT2	Optima 660 OVIC	VCT 64 CT3	Optima 660 CT1
Noise Level	15.86	16.97	15.86	11.60
Interval	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Axial/Helical Thickness	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Pitch	0.984:1	0.984:1	0.984:1	0.984:1
Speed mm/rotation	39.37	39.37	39.37	39.37
Detector Rows				
Detector Configuration				
Beam Collimation	40 mm	40 mm	40 mm	40mm
KV/mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA
Scan Type	Helical Full 0.5 sec	Helical Full 0.5 sec	Helical Full 0.5sec	Helical Full 0.5 sec

Original Date: 4-8-04

Approved by: Dr. Songmen, MCR

Revised Date: 11/9/04, 1/11/10, 9/16/10, 12/8/10, 04/17/13, 12/15/2015, 2/27/18, 07/27/21, 1/30/24

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Series 3: **Enhanced Arterial Phase – IV contrast per MCR contrast dosing guidelines @ 3cc/sec**

Delay: 35 seconds – Scan from diaphragm through Liver

	750 HD (128) CT2	Optima 660 OVIC	VCT 64 CT3	Optima 660 CT1
Noise Level	15.86	15.86	15.86	11.60
Interval	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Axial/Helical Thickness	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Pitch	0.984:1	0.984:1	0.984:1	0.984:1
Speed mm/rotation	39.37	39.37	39.37	39.37
Detector Rows				
Detector Configuration				
Beam Collimation	40 mm	40 mm	40 mm	40mm
Kv/mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA
Scan Type	Helical Full 0.5 sec	Helical Full 0.5 sec	Helical Full 0.5sec	Helical Full 0.5 sec

Series 4: **Portal Venous Phase**

Delay: 70 seconds – Scan from diaphragm through Liver

	750 HD (128) CT2	Optima 660 OVIC	VCT 64 CT3	Optima 660 CT1
Noise Level	15.86	15.86	15.86	11.60
Interval	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Axial/Helical Thickness	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Pitch	0.984:1	0.984:1	0.984:1	0.984:1
Speed mm/rotation	39.37	39.37	39.37	39.37
Detector Rows				
Detector Configuration				
Beam Collimation	40 mm	40 mm	40 mm	40mm
KV/mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA

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Scan Type	Helical Full 0.7 sec	Helical Full 0.5 sec	Helical Full 0.5sec	Helical Full 0.5 sec
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Series 5: **ONLY – For KNOWN Cholangiocarcinoma**
Delay: 10 minutes Post injection – Scan from diaphragm through Liver

	128 slice	32 slice w/ASIR	64 slice	64 slice w/ASIR 30%
Noise Level	15.86	16.36	15.86	11.60
Interval	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Axial/Helical Thickness	2.5 mm	2.5 mm	2.5 mm	2.5 mm
Pitch	0.984:1	0.984:1	0.984:1	0.984:1
Speed mm/rotation	39.37	39.37	39.37	39.37
Detector Rows				
Detector Configuration				
Beam Collimation	40 mm	40 mm	40 mm	40mm
KV/mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA	Auto mA – if large pt. use manual & maximize mA
Scan Type	Helical Full 0.5 sec	Helical Full 0.5 sec	Helical Full 0.5sec	Helical Full 0.5 sec

Networking/ PACs: Send scouts
 Send series 2-4 Standard Soft Tissue Algorithm. (Send series 5 if done)
 Send series 4 in Bone Algorithm 5 x 5
 Recon and send series 3 lung images in Lung Algorithm 5 x 5
 Recon and send MPR of all series in Standard Algorithm
 Record DLP in PACS comments