

RIH – CT FOR RENAL MASS GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL

Indications: To evaluate and characterize a potential renal mass.

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|--|--|------------------------|-----------------------|-----------|------------------------|
| Position/Landmark | Head first or feet first-Supine Xyphoid | | | | |
| 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 16 / 30 / 30% | | | | |
| Detector width x Rows = Beam Collimation | 1.25mm x 16 = 20mm | | | | |
| Average Tube Output | Each Helical: ctdi – 13.1 mGy dlp – 443 mGy.cm | | | | |
| First Helical Set | recon | body part | thickness/ spacing | algorithm | recon destination . |
| Slice Thickness/ Spacing | 1 | non con kidneys | 2.5mm x 2.5mm | standard | pacs |
| Algorithm | 2 | thin nc kidneys | 1.25mm x .6mm | standard | for dmpr |
| Recon Destination | | | | | |
| Second Helical Set | recon | body part | thickness/ spacing | algorithm | recon destination . |
| Slice Thickness/ Spacing | 1 | delayed kidneys | 2.5mm x 2.5mm | standard | pacs |
| Algorithm | 2 | thin delayed kidneys | 1.25mm x .6mm | standard | for dmpr |
| Recon Destination | | | | | |
| Scan Start / End Locations | 1 cm superior to diaphragm iliac crest (scan through entire kidneys) | | | | |
| DFOV | 38cm decrease appropriately | | | | |
| IV Contrast Volume / Type / Rate | 100cc omni 350 3cc/sec | | | | |
| Scan Delay | Non-Contrast ----- | | Delayed 4 minutes | | |
| 2D/3D Technique Used | DMPR of 2.5mm x 2.5mm coronal abdomen series (auto-batch on), average mode, auto-transferred to PACS of each phase. | | | | |
| Comments: | This protocol consists of a non contrast series, and then a contrast series. The contrast series is a delayed scan at 4 minutes. The non-contrast series is to discover hyperdense cysts and to establish a baseline to determine enhancement. The delayed contrast phase is important to determine enhancement of a mass. | | | | |
| Images required in PACS | Scouts, 2.5mm x 2.5mm axial nc kidneys, 2.5mm x 2.5mm coronal nc kidneys, 2.5mm x 2.5mm axial delayed kidneys, 2.5mm x 2.5mm coronal delayed kidneys, Dose Report | | | | |