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|  University Health™ | Policy #: Rad Proc 13.13.14 |
| SUBJECT: CT Oncology Chest/Abdomen/Pelvis 5.14 | Effective: 10/2013 Reviewed: 03/07/2017 |
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Purpose: To provide computed tomography staff with the required protocol for performing CT Oncology Chest/Abdomen/Pelvis.

Scope: All adult patients 18 years and older.

Clinical Indication: Pain, Neoplasm, Metastatic Disease, Staging,

Patient Preparation:

Orientation: Feet first

Breathing: Inspiration

Oral Contrast: Per Trauma Service 800-1000ml 90-120 minute drinking period (see proc. 6.12.1)

IV Contrast per Weight: 1ml/lb or 2ml/kg not to exceed 150ml injected @ 3ml/sec


Coverage: Lung apices through ischial tuberosities

Anatomic Reference: Sternal notch

Scan Delay: Smart prep or care bolus

Group 1: Non-contrast liver– Dome of diaphragm to iliac crest

| Scan Mode | Thickness Speed Pitch | Table Interval | SFOV | kVp | Auto mA/ Noise Index | Prep Time (sec) | Recon Type |
|-------------------------------------|-----------------------------|----------------|-------|-----|-------------------------|-----------------|------------|
| LS 16 0.8 sec Helical Full | 5 27.50 1.375:1 | 5 | Large | 120 | 80-440 11.5 | N | Standard |
| VCT 0.8 sec Helical Full | 5 55.00 1.375:1 | 5 | Large | 120 | 80-600 11.5 | N | Standard |
| AS 64 0.5 sec Helical | 5 1 | 5 | 380 | 120 | Ref MAS 250 | N | Standard |

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Group 2: Chest with Contrast– Lung apices through adrenal glands


Smart prep or care bolus aorta: Monitoring delay 10sec ISD 3 Threshold 50

| Scan Mode | Thick Speed | Interval (mm) | SFOV | kVp | Auto mA/ Noise Index | Prep Group | Recon Type |
|-------------------------------------|-----------------------|---------------|-------|-----|----------------------|------------------------|------------------|
| LS 16 Helical Full 0.8 sec | 5 27.50 1.375:1 | 5 | Large | 120 | 80-440 11.5 | Smart Prep Aorta | Standard Bone |
| VCT Helical Full 0.8 sec | 5 55.00 1.375:1 | 5 | Large | 120 | 80-600 11.5 | Smart Prep Aorta | Standard Bone |
| AS 64 Helical 0.5sec | 5 0.8 | 5 | 360 | 240 | Ref mAs 250 | Smart Prep Aorta | Standard Bone |

Group 3: Venous Abdomen and Pelvis - Dome of diaphragm through Ischial tuberosities

Scan Delay: All prep times are relative to injection start time.

| Scan Mode | Thickness Speed Pitch | Table Interval | SFOV | kVp | Auto mA/ Noise Index | Prep Time (sec) | Recon Type |
|-------------------------------------|-----------------------|----------------|-------|-----|----------------------|-----------------|------------|
| LS 16 0.8 sec Helical Full | 5 27.50 1.375:1 | 5 | Large | 120 | 80-440 11.5 | 70 sec. | Standard |
| VCT 0.8 sec Helical Full | 5 55.00 1.375:1 | 5 | Large | 120 | 80-600 11.5 | 70 sec. | Standard |
| AS 64 0.5 sec Helical Full | 5 1 | 5 | 360 | 120 | Ref mAs 250 | 70 sec. | Standard |

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Group 4 Five minute delays- through kidneys only


| Scan Mode | Thickness Speed Pitch | Table <i>Interval</i> | SFOV | kVp | Auto mA/ Noise Index | Prep Time (sec) | Recon Type |
|-------------------------------------|-----------------------------|--------------------------|-------|-----|-------------------------|-----------------------|---------------|
| LS 16 0.8 sec Helical Full | 5 27.50 1.375:1 | 5 | Large | 120 | 80-440 11.5 | 5 min. | Standard |
| VCT 0.8 sec Helical Full | 5 55.00 1.375:1 | 5 | Large | 120 | 80-600 11.5 | 5 min. | Standard |
| AS 64 0.5 sec Helical Full | 5 1 | 5 | 360 | 120 | Ref mAs 250 | 5 min. | Standard |

Algorithm: Standard. Show recon 1 and 3 standard Show recon 2 in bone

Reformation: Sagittal and Coronal reformations through venous phase only.

Network: Recon 1 (5mm) to PACS. Recon 2 (1.25) auto transmit to AWSERV.

Notes: Auto mA must be on and mA table checked prior to scanning.

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Algorithm: Recon 1= 5mm & 2 1.25mm in Standard Recon 3 - Bone
Network: Recon 1 and 2 to PACS; Recon 3 (1.25) auto transmit AWBR, AWWF, AWSERV
Reformat: Sagittal images through Chest, Abdomen, and Pelvis.
Retro Recon - *Series 2*: thoracic and lumbar spine per neuroradiology
Notes: Auto mA and Care Dose must be on and mA table checked prior to scanning.