

## GUIDELINES FOR EVALUATION OF OUTSIDE TRAUMA CT EXAMINATION ADEQUACY

CT CERVICAL SPINE	
<b>HMC STANDARD:</b> Axial recon thickness: 2.5 mm Axial recon interval 1.25 mm Algorithm: BonePlus. Sagittal reformations from 0.625 axial dataset. Coronal reformations from 0.625 axial dataset. Range: Skull base to T4.	<b>OUTSIDE CT STANDARD</b> <i>If no fracture:</i> Axial recon thickness: $\leq 3\text{mm}$ Axial recon interval $\leq 3\text{mm}$ Algorithm: Standard or bone. Sagittal reformations obtained from thin section dataset ( $\leq 1.5\text{mm}$ ) or raw data*. Range: Skull base to T1.  <i>If cervical spine fracture:</i> Axial recon thickness: $\leq 3\text{mm}$ Axial recon interval $\leq 3\text{mm}$ Algorithm: Standard. Sagittal reformations from thin section dataset ( $\leq 1.5\text{mm}$ ) or raw data*.  Coronal reformats if dens fracture suspected. Range: Skull base to T4*.

CT CHEST TO EXCLUDE AORTIC INJURY	
<b>HMC STANDARD:</b> Axial recon thickness: 2.5 mm Axial recon interval 2.5 mm Algorithm: Standard. Sagittal Candy-cane MPR 10mm at 2.5mm intervals. Coronal Reformations 2.5mm @ 2.5mm. Thoracic inlet to diaphragm. Iv Contrast enhanced, systemic arterial phase.	<b>OUTSIDE STANDARD</b> <i>If no periaortic hematoma</i> Axial recon thickness: $\leq 5\text{ mm}$ Axial recon interval $\leq 5\text{ mm}$ Algorithm: Standard. No reformations necessary. Thoracic inlet to diaphragm. Iv Contrast enhanced, venous or arterial phase†.  <i>If periaortic hematoma or questionable aortic injury:</i> Axial recon thickness: $\leq 3\text{ mm}$ Axial recon interval $\leq 3\text{ mm}$ Algorithm: Standard. Coronal or sagittal reformations. Thoracic inlet to diaphragm. Iv Contrast enhanced, arterial phase.

\* If a cervical spine fracture which increases the risk of a synchronous upper thoracic spine fracture is present then clearing the upper thoracic spine is essential. This is best performed by CT of this region.

† iv contrast is not essential if mediastinal hematoma can be confidently excluded on an outside non-contrast CT or with plain films.

CT ABDOMEN AND PELVIS	
<b>HMC STANDARD</b> Axial recon thickness: 2.5 mm Axial recon interval: 2.5 mm Algorithm: Standard. Coronal reformations. Dome of diaphragm to ischial tuberosities. Iv Contrast enhanced, portal venous phase + Delayed phase if suspected urinary injury or active extravasation.	<b>OUTSIDE CT STANDARD</b> Axial recon thickness: $\leq 5$ mm Axial recon interval $\leq 5$ mm Algorithm: Standard. No reformations necessary. Dome of diaphragm to ischial tuberosities. Iv Contrast enhanced, venous phase. Delays necessary if $>$ Grade 2 renal injury or periureteric fluid seen <sup>‡</sup> .

<sup>‡</sup> If the outside CT is non-contrast, there is no free intraperitoneal fluid and the patient is clinically stable, the necessity of repeating the CT with iv contrast is debatable.

CT LUMBAR SPINE	
<b>HMC STANDARD</b> Axial recon thickness: 2.5 mm Axial recon interval: 2.5 mm Algorithm: Boneplus. 2.5 x 2.5mm sagittal reformations performed from 0.625 or 1.25mm dataset. <i>Sagittal reformations are performed separately for the T and L spine*.</i> T12 to sacrum Narrow R-FOV (16 - 18cm). Reconstructed from CT Abdomen / Pelvis dataset, or as direct CT scan.	<b>OUTSIDE CT STANDARD</b> Axial recon thickness: $\leq 3$ mm Axial recon interval $\leq 3$ mm Algorithm: Standard or sharp. <b>At least sagittal reformations</b> from thin section dataset ( $\leq 1.5$ mm) or raw data*. T12 to sacrum

CT THORACIC SPINE	
<b>HMC STANDARD</b> Axial recon thickness: 2.5 mm Axial recon interval: 2.5 mm Algorithm: Boneplus. 2.5 x 2.5mm sagittal reformations performed from 0.625 or 1.25mm dataset. C7-L1 <i>Sagittal reformations are performed separately for the T and L spine*.</i> Narrow R-FOV (16 - 18cm). Reconstructed from CT or CTA Chest dataset, or as direct CT scan.	<b>OUTSIDE CT STANDARD</b> Axial recon thickness: $\leq 3$ mm Axial recon interval $\leq 3$ mm Algorithm: Standard or sharp. <b>At least sagittal reformations</b> from thin section dataset ( $\leq 1.5$ mm) or raw data*. C7-L1 (Coverage may be more limited if adjacent levels are included in C or L spine CT.)

\* If a standard 512 x 512 or smaller matrix is used, sagittals (and coronals) of the thoracic and lumbar spine should be reformatted separately to maintain spatial resolution.