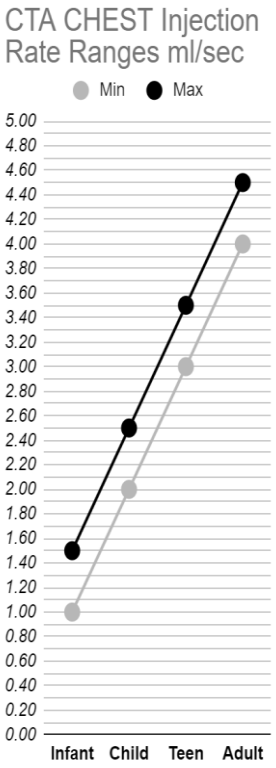
CT PROTOCOL – CT DCN PEDI CTA CHEST SIEMENS EDGE+128

PROTOCOL REVIEW 2025 02/dtf
Approval Imaging Council February 2025

CTDI: 0-4yr: ≤ 15mGy 5-16: ≤30mGy



PT Prep:

- **IV contrast at the discretion of the Radiologist.**
  - **2cc per kg of 300 mg iodine/non-ionic (use Omni 350 if over 50lbs), not to exceed 100 ml unless otherwise determined by Radiologist.**

PT Positioning:

- **Both arms should be raised above head for optimal image quality.**
- **If PT cannot raise one arm, one arm down is preferred over both arms down.**
- **If both arms are unable to be raised, this information should be documented in tech notes for the radiologist.**

Setup: Supine scout from above apices through the adrenal glands/mid L1.

DFOV: Appropriate for patient's body habitus.

Scan Parameters:

1. **Smart prep. Place ROI in the aortic arch to trigger at 80HU for Thoracic Aorta. Place ROI in the pulmonary trunk for PE.**
2. **Scan from above the apices through the adrenal glands**

PACS SERIES
SCOUT & DOSE "PATIENT PROTOCOL"
MIP AX 1.5 X 1.5
LUNG AX 1.5 X 1.5
MIP CORONAL 3X1 (Adult 18+ **10x2)**
MIP SAGITTAL 3X1 (Adult 18+ **10x2)**
MPR COR 3 X 3
MPR SAG 3 X 3

***MIP RAO RT Pulmonary Artery 3X1 (**Adult 18+ **10x2)**
***MIP LAO LT Pulmonary Artery 3X1 (**Adult 18+ **10x2)**
***ST REF 0.6 X 0.6 (send to TERA Recon & PACS for gated cardiacs and pedis)**
***3D: 360 & tumble (cardiac or by request only) (*charge 28301545 CT 3D W Postprocessing)**

Acquisition Parameters

Pedi < 40lbs		Pedi 40-110lbs		Pedi 110lbs +	
Scan Type	Spiral	Scan Type	Spiral	Scan Type	Spiral
Pitch	1.4	Pitch	1.4	Pitch	1.4
Detector Configuration	128 x 0.6	Detector Configuration	128 x 0.6	Detector Configuration	128 x 0.6
Slice Thickness	0.6	Slice Thickness	0.6	Slice Thickness	0.6
Rotation Time	0.28	Rotation Time	0.33	Rotation Time	0.5
Est. Scan Time	1.25	Est. Scan Time	1.59	Est. Scan Time	3.98
Care Dose	on	Care Dose	on	Care Dose	on
Care kV	on	Care kV	on	Care kV	on
Dose Optimization	9	Dose Optimization	9	Dose Optimization	9
Quality Ref mAs/ Ref kV	170/80	Quality Ref mAs/Ref kV	170/80	Quality Ref mAs/Ref kV	159/80

Reconstruction Parameters

Recon 1 Reformat if 3D for ribs are requested	
Kernel	**Br38**
ADMIRE	**3**
Window	**Soft Tissue 400 40**
Slice Thickness	**0.6 x 0.6**
Recon 2 MIP Axial	
Kernel	**Bv38**
ADMIRE	**3**
Window	**CT Angio 700 80**
Slice Thickness	**1.5 x 1.5**
Recon 2 Axial Lung	
Kernel	**Br59**
ADMIRE	**1**
Window	**Baby Lung 1200 -600**
Slice Thickness	**1.5 x 1.5**
Recon 3 & 4 Coronal/Sagittal MIP	**Recon 5 & 6 RAO/LAO MIP**
Kernel: Bv38	**Kernel: Bv38**
ADMIRE: 3	**ADMIRE: 3**
Window: CT Angio 700 80	**Window: CT Angio 700 80**
Slice Thickness: 3.0 x 1.0	**Slice Thickness: 3.0 x 1.0**
Recon 7 Coronal MPR	**Recon 8 Sagittal MPR**
Kernel: Br38	**Kernel: Br38**
ADMIRE: 3	**ADMIRE: 3**
Window: Soft Tissue 400 40	**Window: Soft Tissue 400 40**
Slice Thickness: 3.0 x 3.0	**Slice Thickness: 3.0 x 3.0**