Imaging Protocol – CT Pedi CTA Chest

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 @ 1-2ml/s, not to exceed 100ml unless otherwise determined by Radiologist. (Omni 350 if over 50lbs) PT Positioning:**

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.**

SET-UP: Supine, AP/LAT scout from above apices through the adrenal glands/mid T1.

DFOV: Appropriate for patient's body habitus.

Scan Parameters:
1. **Smart prep. Place ROI over descending aorta to trigger at 140HU**
2. **Scan from above the apices through the adrenal glands**

PACS SERIES:
1. **SCOUT**
2. **ST AX**
3. **LUNG AX**
4. **MIP's: COR, SAG, RAO, LAO (10x2)**
5. **3D if necessary**
6. **DOSE REPORT**

Scan Type	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL
PT Weight (lbs)	1-20.9	20.9-49.6	49.6-89.1	89.1-199.1	199.1-500
Pitch and Speed (mm/rot)	0.984:1 (140.63 mm/s)	0.992:1 (283.48mm/s)	0.992:1 (283.48 mm/s)	0.992:1 (79.38mm/s)	0.992:1 (79.38mm/s)
Detector Coverage	40	80	80	80	80
Thick	1.25	1.25	1.25	1.25	1.25
Speed	0.28	0.28	0.28	1.00	1.00
Noise Index	11.9	14.7	19	22.3	22.3

Acquisition Parameters

PT BODY SIZE	1-20.9 lbs	20.9-49.6 lbs	49.6-89.1 lbs	89.1-199.1 lbs	199.1-500
Scan FOV	PED BODY	SM BODY	MED BODY	LG BODY	LG BODY
Smart mA Range *smart mA + ODM*	10-500*	10-550*	10-550*	50-550*	50-550*
kVp *kV assist*	80	100	100	120	120

Reconstruction Parameters

RECON 1 (Soft Tissue)	
Algorithm	Stnd
ASIR	50%
Recon Type	Helical Full
Slice Thickness	1.25
Increment	1.25
RECON 2 (Lung)	
Algorithm	Lung
ASIR	50%
Recon Type	Helical Full
Slice Thickness	1.25
Increment	1.25
RECON 3 (thins for Reformats)	
Algorithm	STND
ASIR	50%
Recon Type	Helical Plus
Slice Thickness	0.625mm
Increment	0.3125mm