PEDIATRIC CTA/CTV HEAD GE REVOLUTION 256

CTDI: 0-4yr: ≤ 15mGy 5-16: ≤25mGy

PT Positioning:

- If possible, tilt the patient's head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop.
- IV contrast:
 - 2ml per kg of Omni 300 (Omni 350 if over 50 lbs), not to exceed 100ml unless ok by radiologist

Scan Parameters:

• Smart Prep:

-CTA: Place ROI over the aortic arch, triggering at 140 HU

- -CTV: No smart prep needed, inject at angio flow rate and scan 40 sec into bolus
- Start scan at the bottom of the skull base and scan through the top of the head

<u>STEALTH:</u>

• Start scan from the bottom of the top teeth through the top of the head (include entire nose)

Setup: LAT scout from below the mandible through the top of the head DFOV: 25 cm

PACS SERIES

- 1. SCOUT
- 2. ST AX
- 3. MIP COR 1x1
- 4. MIP SAG 1x1
- 5. DOSE REPORT

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Acquisition Parameters

PT AGE	0-5mo	6-18m	19m-6y	7y-14y	15+
Scan Type	AXIAL	AXIAL	AXIAL	HELICAL	HELICAL
Scan FOV	PED HEAD	SM HEAD	SM HEAD	HEAD	HEAD
mA *Smart mA/ODM	400	490	380	375	250
kVp *kV assist	80	80	100	100	100
Pitch and Speed (mm/rot)	N/A	N/A	N/A	0.984:1 (140.63 mm/s)	0.984:1 (78.75 mm/s)
Detector/ *Smart Coverage	120*	160*	160*	40	40
Thick	1.25	1.25	1.25	1.25	1.25
Speed	0.28	0.35	0.28	0.28	0.50

Reconstruction Parameters

RECON 1(ST AX)	400/40		
Algorithm	STND		
ASIR	50%		
Recon Type	STND		
Recon Mode (for helical)	Helical Full		
Slice Thickness	1.25		
Increment	1.25		
RECON 2 (ST REF)	400/40		
Algorithm	STND		
ASIR	50%		
Recon Type	STND		
Recon Mode (for helical)	Helical Plus		
Slice Thickness	0.625		
Increment	0.3125		

PROTOCOL DESIGNED TO MINIMIZE THE AMOUNT OF RADIATION WHILE MAXIMIZING THE YIELD AND PRODUCE DIAGNOSTICALLY ACCEPTABLE IMAGE QUALITY.

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