Gundersen Health System

Angio Head & Temp Bones UHR (non DE) Siemens go.All

Application Examples: pulsitile tinnitus

Oral Contrast	No
IV Contrast / Volume	75 mL Omnipaque 350
Injection Rate	5 mL/sec

Technical Factors

Care Bolus ROI Location / HU	*see instructions below
Monitoring Delay	10 seconds
Cycle Time	1 second
Scan Delay	5 seconds
Breath Hold	N/A

Detector Collimator	Acq 32 x 0.7mm
Care kV	Semi / 120
Care Dose 4D	On / 165
Rotation Time (seconds)	0.5
Pitch	1.10
Typical CTDIvol	25.24 mGy ± 50%

Topogram: AP and Lateral, 256 mm

Angio Tbones	Recon Type	Width / Increment	Kernel	Safire	Window	FoV	Series Description	Networking	Post Processing
Recon 1	Axial	0.6 x 0.6	Bv36	2	Angio	160	AXIAL	PACS & TR	3D
Recon 2	3D:COR	1x 1	Bv44	2	Angio	-	COR MIP 1.0	PACS	Coronal MIP
Recon 3	3D:SAG	1x 1	Bv44	2	Angio	-	SAG MIP 1.0	PACS	Sagittal MIP
Recon 4	3D:AXIAL	10 x 4	Bv40	2	Angio	-	HEAD AXIAL MIP	PACS	Axial MIP
Recon 5	3D:COR	10 x 4	Bv40	2	Angio	-	HEAD COR MIP	PACS	Coronal MIP
Recon 6	3D: SAG	10 x 4	Bv40	2	Angio	-	HEAD SAG MIP	PACS	Sagittal MIP
Recon 7 Regional	VRT 3D SPIN	Radial Ranges	Br40	2	Pelvis		VRT 3D SPIN	PACS	VRT spin
Recon 7	MIP SPIN	Radial Ranges	Bv36	2	Bone		MIP SPIN	PACS	MIP spin

There should be two orders: (1) **CT Angio Head** and (2) **CT Temp Bone with contrast**. Register patient on the scanner using study split.

IV Placement: ≥ 18 gauge, *preferably* in antecubital (AC) fossa.

Patient Preparation: Have patient remove any detachable dental work.

Patient Position: Position head with chin tucked and head in a symmetrical position (no rotation or tilt). Petrous ridges should be in the lower third of orbits on AP topogram. Repeat AP topogram until positioning is accurate and before furthering with scan.

Scan Instructions: Take pre-monitoring at level carotid bifurcations (approximately C5 level) and place ROI in air. Manually trigger scan as soon as first blush of contrast is in carotid arteries.

Scan Range: Scan below carotid bifurcations (approximately C5 level) through circle of willis (COW) to top of head. (Starting at C5 is due to possible pathology for pulsatile tinnitus)

Recons and Reformations: Temporal bones reformations- as listed below. It is important to choose the right or left planning base corresponding with the correct side. Check labeling and keep FoV consistent at 100.

Recon 8	Axial	0.6 x 0.6	Hr60	-	Inner Ear	100	AXIAL RT	PACS	None
Recon 9	Axial	0.6 x 0.6	Hr60	-	Inner Ear	100	AXIAL LT	PACS	None
Recon 10	3D:COR	0.8x 0.5	Hr60	-	Inner Ear	100	COR RT	PACS	MPR
Recon 11	3D:SAG	0.8 x 0.5	Hr60	-	Inner Ear	100	SAG RT	PACS	MPR
Recon 12	3D:COR	0.8x 0.5	Hr60	-	Inner Ear	100	COR LT	PACS	MPR
Recon 13	3D:SAG	0.8 x 0.5	Hr60	-	Inner Ear	100	SAG LT	PACS	MPR

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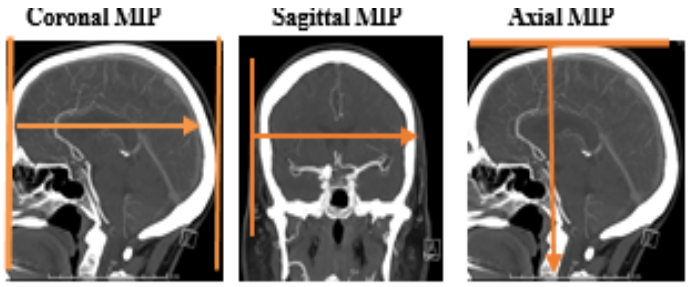
IF THEY ASK FOR SOFT TISSUE WINDOW REFORMAT

Recon 14	AXIAL RT	1.0 x 1.0	Hr44	Base Orbita	100	AXIAL STND	PACS	MPR
Recon 15	AXIAL LT	1.0 x 1.0	Hr44	Base Orbita	100	AXIAL STND	PACS	MPR
Recon 16	COR RT	1.0 x 1.0	Hr44	Base Orbita	100	COR RT	PACS	MPR
Recon 17	SAG RT	1.0 x 1.0	Hr44	Base Orbita	100	SAG RT	PACS	MPR
Recon 18	COR LT	1.0 x 1.0	Hr44	Base Orbita	100	COR LT	PACS	MPR
Recon 19	SAG LT	1.0 x 1.0	Hr44	Base Orbita	100	SAG LT	PACS	MPR

Recons and Reformations: Angio Head reformations -Make coronal, sagittal and axial 10x4 MIPs of the head and 1x1's (C5 through vertex) orientated to sella. Align data perpendicular to the floor of the sella (coronal), inter-hemispheric fissure (sagittal), and parallel to sella (axial).



3D: Rotating MIP and VR of COW (Bowl views). See post processing protocol for more details.
(Regional site these will be done on scanner)