RIH – HELICAL ADULT BRAIN
SIEMENS DEFINITION AS+ PROTOCOL

Indications: Non contrast: cva, intracranial bleed, mental status change, trauma, hydrocephalus.
Contrast: suspicion of mass, known primary brain lesion, metastases

Position/Landmark	Supine head first or feet first 1cm superior to skull vertex
Topogram Direction	Craniocaudal / Craniocaudal
Respiratory Phase	Any
Scan Type	Helical
Ref kV/Ref mAs/Rotation time (sec) **Pitch / Speed (mm/rotation)** **Safire Strength / Dose Optimization**	Care kV 120 / Care Dose4D 250 / 0.5 sec .7:1 , 8.75mm 1 / 3
Detector width x Rows = Beam Collimation	0.625mm x 20 = 12.5mm (40 x .6mm)
Average Tube Output	ctdi – 35.0 mGy dlp – 600 mGy.cm
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	(see table below)
Scan Start / End Locations **DFOV**	1cm inferior to skull base 1cm superior to skull vertex 25cm decrease appropriately
IV Contrast Volume / Type / Rate	100mL Iohexol (Omnipaque 350), 1.5mL/sec if needed
Scan Delay	minimum of 2 minutes
2D/3D Technique Used	Workstream 4d mpr 5mm x 5mm **axial brain reformats** in the glabello-meatal plane, auto transferred to PACS Workstream 4d mpr 5mm x 5mm **axial skull reformats** in the glabello-meatal plane, auto transferred to PACS Workstream 4d mpr 5mm x 5mm **coronal brain reformats** perpendicular to the glabello-meatal plane, auto transferred to PACS

Helical Set detail:

recon	body part	thickness/ spacing	recon algorithm	recon destination
1	thick helical brain	5mm x 5mm	J40f medium	
2	**axial brain reformat**	5mm x 5mm	J40f medium	pacs
3	**axial skull reformat**	5mm x 5mm	H60f sharp	pacs
4	**coronal brain reformat**	5mm x 5mm	J40f medium	pacs
5	thin brain	.75mm x .7mm	J40f medium	terarecon

Comments: Since this study is comprised of all mpr's, Recon 1 is used only to acquire data. Recons 2-4 are workstream 4d reformats for pacs. Recon 5 is thin image data to terarecon.

Do not alter the pitch setting of this protocol.

Images required in PACS	Topograms , 5mm x 5mm axial brain, 5mm x 5mm coronal brain, 5mm x 5mm axial skull, Patient Protocol

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