RIH – HELICAL PEDI BRAIN
SIEMENS DEFINITION AS20 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 220 / 0.5 sec .6:1 , 7.5mm 1 / non contrast 3 iv contrast 6
Detector width x Rows = Beam Collimation	0.625mm x 20 = 12.5mm
Average Tube Output	ctdi – 25.0 mGy dlp – 400 mGy.cm
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon / body part / thickness/ spacing / 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 6 thin skull .75mm x .7mm H60f sharp terarecon
Scan Start / End Locations **DFOV**	1cm inferior to skull base 1cm superior to skull vertex 25cm decrease appropriately
IV Contrast Volume / Type / Rate	Contrast volume is 1cc per pound of body weight Omnipaque300 / 1.5cc per second or hand injection if necessary
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
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 and 6 are 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

updated Jan 23, 2017