

**RIH – HELICAL ADULT 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 250 / 0.5 sec .7:1 , 8.75mm 1 / 3																														
Detector width x Rows = Beam Collimation	0.625mm x 20 = 12.5mm																														
Average Tube Output	ctdi – 35.0 mGy dlp – 600 mGy.cm																														
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	<table border="1"> <thead> <tr> <th></th> <th>body part</th> <th>thickness/ spacing</th> <th>algorithm</th> <th>recon destination</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>thick helical brain</td> <td>5mm x 5mm</td> <td>J40f medium</td> <td></td> </tr> <tr> <td>2</td> <td>axial brain reformat</td> <td>5mm x 5mm</td> <td>J40f medium</td> <td>pacs</td> </tr> <tr> <td>3</td> <td>axial skull reformat</td> <td>5mm x 5mm</td> <td>H60f sharp</td> <td>pacs</td> </tr> <tr> <td>4</td> <td>coronal brain reformat</td> <td>5mm x 5mm</td> <td>J40f medium</td> <td>pacs</td> </tr> <tr> <td>5</td> <td>thin brain</td> <td>.75mm x .7mm</td> <td>J40f medium</td> <td>terarecon</td> </tr> </tbody> </table>		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
	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																											
Scan Start / End Locations	1cm inferior to skull base 1cm superior to skull vertex 25cm																														
DFOV	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	<p>Workstream 4d mpr 5mm x 5mm axial brain reformats in the glabello-meatal plane, auto transferred to PACS</p> <p>Workstream 4d mpr 5mm x 5mm axial skull reformats in the glabello-meatal plane, auto transferred to PACS</p> <p>Workstream 4d mpr 5mm x 5mm coronal brain reformats perpendicular to the glabello-meatal plane, auto transferred to PACS</p>																														
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																														