

RIH – HELICAL SURGICAL/3D HEAD SIEMENS DEFINITION AS20 PROTOCOL

Indications: This ct is performed to for pre-surgical planning of cranio-facial reconstruction.

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 – 650 mGy.cm																																
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">body part</th> <th style="text-align: center;">thickness/ spacing</th> <th style="text-align: center;">algorithm</th> <th style="text-align: center;">recon destination .</th> </tr> </thead> <tbody> <tr> <td>1 thick helical brain/face</td> <td>5mm x 5mm</td> <td>J40f medium</td> <td></td> </tr> <tr> <td>2 axial brain reformat</td> <td>5mm x 5mm</td> <td>J40f medium</td> <td>pac</td> </tr> <tr> <td>3 coronal brain reformat</td> <td>5mm x 5mm</td> <td>J40f medium</td> <td>pac</td> </tr> <tr> <td>4 1mm true axial face skull</td> <td>5mm x 5mm</td> <td>H60f sharp</td> <td>pac</td> </tr> <tr> <td>5 1mm true coronal face skull</td> <td>5mm x 5mm</td> <td>H60f sharp</td> <td>pac</td> </tr> <tr> <td>6 1mm true sagittal face skull</td> <td>5mm x 5mm</td> <td>H60f sharp</td> <td>pac</td> </tr> <tr> <td>7 1mm straight axial face skull</td> <td>1mm x 1mm</td> <td>H60f sharp</td> <td>pac/terarecon</td> </tr> </tbody> </table>	body part	thickness/ spacing	algorithm	recon destination .	1 thick helical brain/face	5mm x 5mm	J40f medium		2 axial brain reformat	5mm x 5mm	J40f medium	pac	3 coronal brain reformat	5mm x 5mm	J40f medium	pac	4 1mm true axial face skull	5mm x 5mm	H60f sharp	pac	5 1mm true coronal face skull	5mm x 5mm	H60f sharp	pac	6 1mm true sagittal face skull	5mm x 5mm	H60f sharp	pac	7 1mm straight axial face skull	1mm x 1mm	H60f sharp	pac/terarecon
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Scan Start / End Locations	1cm inferior to chin 1cm superior to skull vertex 25cm																																
DFOV	decrease appropriately																																
IV Contrast Volume / Type / Rate																																	
Scan Delay																																	
2D/3D Technique Used	<p>5mm x 5mm axial and coronal brain reformats, standard algorithm in respect to the glabello-meatal plane (auto-batch off), average mode, auto transferred to PACS</p> <p>1mm x 1mm axial, sagittal, and coronal face/skull reformats, bone algorithm, in respect to the skull floor plane (auto-batch off), average mode, auto transferred to PACS</p> <p>3d head tumble and spin.</p>																																
Comments: Since this study is comprised of all mpr's, Recon 1 is used only to acquire data. Recons 2-6 are workstream 4d reformats for pac. Recon 7 is thin pre-op planning 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, 1mm x 1mm axial, sagittal, and coronal face/skull reformats, bone algorithm, 1mm x 1mm prosthetic implant planning data set, 3d head tumble and spin, Patient Protocol																																