

## RIH – HIGH RESOLUTION CHEST SIEMENS DEFINITION AS20 PROTOCOL

**Indications - interstitial lung disease, emphysema, bronchiectasis, asbestosis, restrictive lung disease**

<b>Position/Landmark</b>	Head first or feet first-Supine 2cm superior to shoulders																														
<b>Topogram Direction</b>	Craniocaudal / Craniocaudal																														
<b>Respiratory Phase</b>	Inspiration																														
<b>Scan Type</b>	Helical / Axial																														
<b>Ref kV/Ref mAs/Rotation time (sec) Pitch / Speed (mm/rotation) Safire Strength / Dose Optimization</b>	Care kV 120 / Care Dose4D 150 / 0.5 sec .6:1 , 12.00mm 3 / 4																														
<b>Detector width x Rows = Beam Collimation</b>	Helical 1.25mm x 16 = 20mm Axial .6mm x 6 = 3.75mm																														
<b>Average Tube Output</b>	Helical: ctdi – 9 mGy dlp – 336 mGy.cm Each Axial: ctdi – .8 mGy dlp – 22 mGy.cm																														
<b>Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	<table border="1"> <thead> <tr> <th>recon</th> <th>body part</th> <th>thickness/spacing</th> <th>algorithm</th> <th>recon destination</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><b>chest</b></td> <td>5mm x 5mm</td> <td>I40f medium</td> <td>pac</td> </tr> <tr> <td>2</td> <td><b>lungs</b></td> <td>5mm x 5mm</td> <td>I70f very sharp</td> <td>pac</td> </tr> <tr> <td>3</td> <td><b>supine hi res lungs</b></td> <td>1.25mm x 20mm</td> <td>I70f very sharp</td> <td>pac</td> </tr> <tr> <td>4</td> <td><b>coronal chest</b></td> <td>5mm x 5mm</td> <td>I40f medium</td> <td>pac</td> </tr> <tr> <td>5</td> <td>thin chest</td> <td>1.5mm x 1mm</td> <td>I40f medium</td> <td>terarecon</td> </tr> </tbody> </table>	recon	body part	thickness/spacing	algorithm	recon destination	1	<b>chest</b>	5mm x 5mm	I40f medium	pac	2	<b>lungs</b>	5mm x 5mm	I70f very sharp	pac	3	<b>supine hi res lungs</b>	1.25mm x 20mm	I70f very sharp	pac	4	<b>coronal chest</b>	5mm x 5mm	I40f medium	pac	5	thin chest	1.5mm x 1mm	I40f medium	terarecon
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<b>Scan Start / End Locations</b>  <b>DFOV</b>	lung apices costophrenic angles 35cm decrease appropriately																														
<b>IV Contrast Volume / Type / Rate</b>																															
<b>2D/3D Technique Used</b>	Workstream 4D mpr of 5mm x 5mm <b>coronal chest</b> series, auto-transferred to PACS.																														
<b>Comments:</b>	There are three scans in this protocol: supine inspiration helical, supine expiration axials, and prone inspiration axials. Every effort must be made to acquire prone images. If the patient cannot hold their breath, please consult a radiologist.																														
<b>Images required in PACS</b>	Topograms, 5mm x 5mm axial chest, 5mm x 5mm coronal chest, 5mm x 5mm axial lungs, 1.25mm x 20mm axial supine inspiration hi res lung, 1.25mm x 20mm axial supine expiration hi res lung, 1.25mm x 20mm axial prone inspiration hi res lung, Patient Protocol																														