

**RIH - WRIST/HAND CT
SIEMENS DEFINITION AS+ PROTOCOL**

Indication: fracture, dislocation, osteomyelitis, bone injury, bone tumor.

| Position/Landmark | Supine , feet first Zero Appropriately | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------------------|-----------------|-----------------------|-----------|-------------------|---|------------------------------|-----------|-------------|-----|---|------------------------------|-----------|-----------------|-----|---|---------------------------|-----------|-----------------|-----|---|----------------------------|-----------|-----------------|-----|---|------------------------------|-----------|-----------------|-----|---|-----------------|--------------|-----------------|-----------|
| Topogram Direction | 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 100 / 1 sec .8:1 , 32.00mm 3 / 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Detector width x Rows = Beam Collimation | 0.625mm x 64 = 40mm (128 x .6mm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Average Tube Output | ctdi – 3.0mGy dlp – 80mGy.cm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Helical Set 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>axial soft hand/wrist</td> <td>3mm x 3mm</td> <td>I40s medium</td> <td>pac</td> </tr> <tr> <td>2</td> <td>axial bony hand/wrist</td> <td>2mm x 2mm</td> <td>I70h very sharp</td> <td>pac</td> </tr> <tr> <td>3</td> <td>coronal hand/wrist</td> <td>2mm x 2mm</td> <td>I70h very sharp</td> <td>pac</td> </tr> <tr> <td>4</td> <td>sagittal hand/wrist</td> <td>2mm x 2mm</td> <td>I70h very sharp</td> <td>pac</td> </tr> <tr> <td>5</td> <td>true axial hand/wrist</td> <td>2mm x 2mm</td> <td>I70h very sharp</td> <td>pac</td> </tr> <tr> <td>6</td> <td>thin hand/wrist</td> <td>.75mm x .7mm</td> <td>I70h very sharp</td> <td>terarecon</td> </tr> </tbody> </table> | recon | body part | thickness/ spacing | algorithm | recon destination | 1 | axial soft hand/wrist | 3mm x 3mm | I40s medium | pac | 2 | axial bony hand/wrist | 2mm x 2mm | I70h very sharp | pac | 3 | coronal hand/wrist | 2mm x 2mm | I70h very sharp | pac | 4 | sagittal hand/wrist | 2mm x 2mm | I70h very sharp | pac | 5 | true axial hand/wrist | 2mm x 2mm | I70h very sharp | pac | 6 | thin hand/wrist | .75mm x .7mm | I70h very sharp | terarecon |
| recon | body part | thickness/ spacing | algorithm | recon destination | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | axial soft hand/wrist | 3mm x 3mm | I40s medium | pac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | axial bony hand/wrist | 2mm x 2mm | I70h very sharp | pac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | coronal hand/wrist | 2mm x 2mm | I70h very sharp | pac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | sagittal hand/wrist | 2mm x 2mm | I70h very sharp | pac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | true axial hand/wrist | 2mm x 2mm | I70h very sharp | pac | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | thin hand/wrist | .75mm x .7mm | I70h very sharp | terarecon | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Scan Start / End Locations | determined by technologist or radiologist to include the anatomy of interest | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DFOV | 10cm decrease appropriately | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IV Contrast Volume / Type / Rate | 75mL Iohexol (Omnipaque 350) / 2mL per second if needed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Scan Delay | 65 seconds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2D/3D Technique Used | Workstream 4D mpr of 2mm x 2mm coronal and sagittal wrist/hand series (auto-batch off), average mode, auto-transferred to PACS Also, there is a 2mm x 2mm true axial reformat if needed due to the patient's position. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comments: | Recon 6 is a thin helical volume of the hand and wrist that is archived to the TeraRecon server. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Images required in PACS | Topograms, 2mm x 2mm axial wrist/hand bone, 2mm x 2mm axial wrist/hand standard, 2mm x 2mm sagittal wrist/hand, 2mm x 2mm coronal wrist/hand, Patient Protocol | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |