

# ROUTINE CHEST WITH 16 Sensation

|                              |   |            |              |                 |             |     |             |
|------------------------------|---|------------|--------------|-----------------|-------------|-----|-------------|
| Indications                  | Cough, SOB, restage cancer, abnormal cxr  |            |              |                 |             |     |             |
| Diagnostic Task              | Detect nodules or masses and characterize their size and shape, abnormal fluid collections in chest |            |              |                 |             |     |             |
| Scan mode                    | Helical-inspiration   |            |              |                 |             |     |             |
| Position/Landmark            | Head first-Supine 1cm to shoulders-arms above head  |            |              |                 |             |     |             |
| Topogram                     | AP  |            |              |                 |             |     |             |
| kVp/Reference mass           | 120kV 160mas/Care Dose ON 100kv if pt under 140lbs  |            |              |                 |             |     |             |
| Rotation time/pitch          | 0.5/1   |            |              |                 |             |     |             |
| Detector Configuration       | 16x0.75   |            |              |                 |             |     |             |
| Table Speed/Increment        | 12  |            |              |                 |             |     |             |
| Dose reduction               | CareDose 4D   |            |              |                 |             |     |             |
| Allowed CTDI ranges*         | 7mGy-50mGy  |            |              |                 |             |     |             |
| XR29 Dose Notification value | 50mGy   |            |              |                 |             |     |             |
| Helical Set                  |   | body       | thickness    |                 |             |     | recon       |
|                              | recon   | part       | spacing      | kernel          | window      |     | destination |
|                              | 1   | chest      | 2mmx 2mm     | 31medium smooth | mediastinum |     | pac         |
|                              | 2   | lung       | 1.5mmx 1.5mm | 70very sharp    | lung        |     | pac         |
|                              | 3   | thin chest | 1mmx.8mm     | 31medium smooth | mediastinum |     | mpr and pac |
| 4                            | thin lung   | 1mmx.8mm   | B20f smooth  | lung            |             | mpr |             |
| Scan Start/end location      | 2cm superior to lung apices   |            |              |                 |             |     |             |
|                              | through adrenal glands/inferior aspect of L-1   |            |              |                 |             |     |             |
| DFOV                         | 35cm  |            |              |                 |             |     |             |
|                              | decrease appropriately/decrease for lung recons   |            |              |                 |             |     |             |
| 3D Technique Used            | 2x2coronal and sag chest reformats for recon 3  |            |              |                 |             |     |             |
|                              | 10x2 axial mip lung from recon 4  |            |              |                 |             |     |             |
| IV contrast volume/type      | 75ml < 200lbs, 100ml 200-250lbs, 125ml>250lbs isovue 370 2.5-3cc/sec                                |            |              |                 |             |     |             |
|                              | Performed as directed by the supervising radiologist  |            |              |                 |             |     |             |
| Scan delay                   | 60 seconds  |            |              |                 |             |     |             |

| Approximate Values for CTDIvol |            |             |              |
|--------------------------------|------------|-------------|--------------|
| Patient size                   | weight(kg) | weight(lbs) | CTDIvol(mGy) |
| SMALL                          | 50-70      | 110-155     | 4-10         |
| AVERAGE                        | 70-90      | 155-200     | 8-16         |
| LARGE                          | 90-120     | 200-265     | 14-22        |

**NOTE**

\*The AAPM recommended NEMA XR29 Dose Notification Value for an adult torso is 50mGy. Dose Notification levels less than the AAPM recommended can be set. The maximum CTDI vol should match the dose notification value. Exams with CTDI vol values less than the minimum allowed range should not be performed unless approved by a radiologist.

