

PULMONARY EMBOLISM+AP16 Sensation

| | | | | | | |
|--------------------------------|--|-----------------|-------------------|-----------------|-------------|-------------------|
| Indications | SOB, Chest pain, cough, elevated d-dimer, hemoptysis, nausea, vomittin | | | | | |
| Diagnostic Task | Detect pulmonary embolism, nodules or masses and characterize their size and shape, abnormal fluid collections in chest | | | | | |
| Scan mode | Helical | | | | | |
| Position/Landmark | feet first-Supine-inspiration-1cm superior to shoulders | | | | | |
| Topogram | AP 50mA 120kVp | | | | | |
| kVp/Reference mass | 120kv 240mAs/Care dose ON | | | | | |
| Rotation time/pitch | PE 0.5/0.95// AP 05./0.75 | | | | | |
| Detector Configuration | 16x.75 | | | | | |
| Table Speed/Increment | PE 11.4// 9 | | | | | |
| Dose reduction | Care Dose | | | | | |
| Allowed CTDI ranges* | 7mGy-50mGy | | | | | |
| XR29 Dose Notification value | 50mGy | | | | | |
| Helical Set #1 | recon | body part | thickness spacing | kernel | window | recon destination |
| | 1 | chest | 2mmx 2mm | 31medium smooth | mediastinum | pac |
| | 2 | lung | 1.5mmx 1.5mm | 70very sharp | lung | pac |
| | 3 | thin chest | .75mmx.7mm | 31medium smooth | mediastinum | for mpr |
| | 4. | thin chest | .75mmx.7mm | b20f smooth | lung | for mpr |
| Helical Set #2 70 sec delay | recon | body part | thickness spacing | kernel | window | recon destination |
| | 1 | abd/pelvis | 2mmx 2mm | 31medium smooth | mediastinum | pac |
| | 2 | thin abd/pelvis | 1mmx.8mm | 31medium smooth | mediastinum | for mpr |
| | 2x2 coronal and sag abd/pelvis reformats from helical set #1, recon 2 | | | | | |
| Scan Start | Chest-2cm superior to lung apices// AP Diaphragm | | | | | |
| end location | Chest-inferior aspect of L-1//AP lesser trochanter | | | | | |
| DFOV | 45cm decrease appropriately | | | | | |
| 3D Technique Used | 2x2 coronal and sag chest reformats for recon 3 series 1 | | | | | |
| | 10x2 angled MIP obliques to pulmonary arteries | | | | | |
| | 10x2 axial mip lung from recon 4 series 1 | | | | | |
| | Performed as directed by the supervising radiologist | | | | | |
| IV contrast volume/type | <200lbs 100ml isovue 370 @4cc/sec >200lbs 125ml isouve 370 @5cc/sec | | | | | |
| Scan delay | bolus tracking at plumonary trunk(level just inferior to carina) Trigger is +75HU//AP 70sec | | | | | |
| | Comments: Being able to locate the pulmonary trunk is important. The monitoring phase will not trigger properly and the scan will not start correctly if the roi is not placed on the correct anatomy. | | | | | |
| | 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.

