

PULMONARY EMBOLISM 16 Sensation

Indications	SOB, Chest pain, cough, elevated d-dimer, hemoptysis					
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	0.5/0.95					
Detector Configuration	16x.75					
Table Speed/Increment	11.4					
Dose reduction	Care Dose					
Allowed CTDI ranges*	7mGy-50mGy					
XR29 Dose Notification value	50mGy					
Helical Set	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	2mmx 2mm	31medium smooth	mediastinum	pacs
	2	lung	1.5mmx 1.5mm	70very sharp	lung	pacs
	3	thin chest	.75mmx.7mm	31medium smooth	mediastinum	for mpr
	4.	thin chest	.75mmx.7mm	b20f smooth	lung	for mpr
Scan Start/end location	2cm superior to lung apices through adrenal glands/inferior aspect of L-1					
DFOV	45cm decrease appropriately					
3D Technique Used	2x2 coronal and sag chest reformats for recon 3					
	10x2 angled MIP obliques to pulmonary arteries					
	10x2 axial mip lung from recon 4					
	Performed as directed by the supervising radiologist					
IV contrast volume/type	80ml if < 200lbs @4cc/sec 100ml if >200lbs isovue 370 @5cc/sec					
Scan delay	bolus tracking at plumonary trunk(level just inferior to carina) Trigger is +75HU					
	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.					

