CTA CHEST 16Sensation

Indications	trauma, acute aortic syndrome, suspected aneurysm/dissection					
Diagnostic Task	Detect aneurysms, aortic dissections and					
Scan mode	Helical					
Position/Landmark	Head first-Supine 1cm to shoulders/inspiration					
Topogram	AP 50mA 120kV					
kVp/Reference mass	120kv 200mas/Care Dose ON/100kv if pt under 140lbs					
Rotation time/pitch	0.5/pitch 1.0					
Detector Configuration	16x0.75					
Table Speed/Increment	12					
Dose reduction	CareDose 4D					
Allowed CTDI ranges*	7mGy-50mGy					
XR29 Dose Notification value	50mGy					
Helical Set 1		body	thickness			recon
NON CONTRAST	recon	part	spacing	kernel	window	destination
	1	chest	1.5mmx 1.5mm	31medium smooth	mediastinum	pacs
	if patient under 40 ask about non contrast images					
Helical Set 2		body	thickness			recon
ARTERIAL	recon	part	spacing	kernel	window	destination
	1	chest cta	2mmx 2mm	31medium smooth	mediastinum	pacs/TR
	2	lung	1.5mmx 1.5mm	70 very sharp	lung	pacs
	3	thin chest	1mmx.8mm	31medium smooth	mediastinum	for mpr/TR
	4	lung	1mmx0.8mm	70 very sharp	lung	mpr
Helical Set 3		body	thickness			recon
60sec	recon	part	spacing	kernel	window	destination
	1	chest	1.5mmx 1.5mm	31medium smooth	mediastinum	pacs
	If stent/graft, s/p TEVAR, venous evaluation					
Scan start/End location	2cm superior to lung apices Diaphragm(include entire stent on delay)					
DFOV	40cm decrease appropriately					
3D Technique Used	2x2 coronal and sag coronal chest reformats from recon 3					
	5x2 oblique coronal and oblique sag aorta MIP from recon 3(optional 3d aorta) 10x2 axial mip lung from recon 4					
IV contrast volume/type	<200lbs 80ml isovue 370 >200lbs 100ml isovue 370 @3-4ml/sec					
Scan delay	Bolus Tracking at descending aorta(level just inferior to carina) Trigger is +100HU					
	Comments: Being able to locate the descending aorta is important. The montoring phase will not trigger properly and the scan will not start correctly if the roi is not placed on the correct anatomy					

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

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allowed range should not be performed unless approved by a radiologist.