

CTA Chest 16 Emotion

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 25mA 110kV					
kVp/Reference mass	120kv ?mas/Care Dose ON/100kv if pt under 140lbs					
Rotation time/pitch	0.6/pitch 0.85					
Detector Configuration	16x1.2					
Table Speed/Increment	16.32					
Dose reduction	CareDose 4D					
Allowed CTDI ranges*	7mGy-50mGy					
XR29 Dose Notification value	50mGy					
Helical Set 1 non contrast	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	1.5mmx1.5mm	31medium smooth	mediastinum	pac
	if patient under 40 ask about non contrast images					
Helical Set 2 arterial	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest cta	2mmx 2mm	31medium smooth	mediastinum	pac/TR
	2	lung	1.5mmx 1.5mm	70 very sharp	lung	pac
	3	coronal chest	2mmx2mm	31medium smooth	mediastinum	pac
	4	sag chest	2mmx2mm	31medium smooth	mediastinum	pac
	5	thin chest	1.5mmx.7mm	31medium smooth	mediastinum	pac/TR
	6	MIP coronal aorta	5mmx2mm	31medium smooth	mediastinum	pac
	7	MIP sag aorta	5mmx2mm	31medium smooth	mediastinum	pac
	8	axial MIP	10mmx2mm	70 very sharp	lung	pac
Helical Set 3 60sec	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	1.5mmx1.5mm	31medium smooth	mediastinum	pac
	if stent/graft, s/p TEVAR, venous evaluation					
Scan start/End location	2cm superior to lung apices Diaphragm					
DFOV	40cm decrease appropriately					
IV contrast volume/type	80ml <175lbs 100ml 175-350lbs 120ml >350lbs isovue 370, 40ml ns					
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 monitoring 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 allowed range should not be performed unless approved by a radiologist.					

