

CTA CHEST/Abd/Pelvis 16Sensation

Indications	trauma, acute aortic syndrome, suspected aneurysm/dissection						
Diagnostic Task	Detect aneurysms, aortic dissections						
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 NON CONTRAST	recon	body part	thickness spacing	kernel	window	recon destination	
	1	chest	2mmx 2mm	31medium smooth	mediastinum	pacs	
	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	pacs	
	2	lung	1mmx 1mm	70 very sharp	lung	pacs	
	3	thin c/a/p	1mmx.8mm	31medium smooth	mediastinum	for mpr/TR	
	4	lung	1mmx0.8mm	70 very sharp	lung	mpr	
Scan start/End location	NC 2cm superior to lung apices// arterial 2cm superior to lung apices NC through hepatic dome// lesser trochanters						
DFOV	40cm decrease appropriately						
3D Technique Used	2x2 coronal and sag coronal chest/abd/pevlis 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	100ml isovue 370 3-4cc/sec						
Scan delay	Bolus Tracking at descending aorta(level just inferior to carina) Trigger is +100HU						
<p>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</p>							
	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.
