

CTA HEAD NECK 16 Sensation

Indications	Severe Headache, dizziness, memory loss, slurred speech, blurred vision, weakness					
Diagnostic Task	Detect Vascular disease, aneurysm evaluation, Acute Stroke					
Scan Mode	Helical					
Position/Landmark	Head first -Supine 1cm superior to skull vertex-Craniocaudal					
Topogram	AP 120kV 50mA Lat 120 kV 50mA					
kVp/Reference mass	NC brain 120kV 320mA//CTA 120kV 300mA					
Rotation time/pitch	NC brain 1sec/0.6//CTA 0.5/0.8					
Detector Configuration	NC brain 16x0.75//CTA 16x0.75					
Table Speed/Increment	NC brain 7.2//CTA 9.6					
Dose reduction	NC brain na//CTA CareDose 4d					
Allowed CTDI ranges*	30mGy-80mGy					
XR29 Dose Notification value	80mGy					
helical Set	recon	body part	thickness spacing	kernel	window	recon destination
Non-con brain	1	brain	1mmx 1mm	31medium smooth	cerebrum	pac
	2	skull	1mmx1mm	H60 sharp	neuro bone	pac
	3	axial brain	5mmx 5mm	31medium smooth	cerebrum	pac
	4	thin brain	0.75x0.7mm	31medium smooth	cerebrum	mpr
3d technique used	1mmx1mm sag/coronal brain from recon 4					
Helical set-CTA	recon	body part	thickness spacing	kernel	window	recon destination
3d technique used	1	neck/head cta	.75mmx.7	20 smooth	mediastinum	pac
	2	Cta neck	.75mmx.7	20 smooth	mediastinum	mpr
	3	Cta Head	.75mmx.7	20smooth	mediastinum	mpr
	1x1 lt and rt oblique carotid MPR from recon 2					
	4x1 coronal MIP carotid from recon 2					
	2x2 sag MPR neck from recon 2					
	20x5mm axial MIP cow from recon 3					
	5x2mm sag/coronal MIP cow from recon 3					
	1x1mm sag/coronal MPR brain from recon 3					
Scan Start/End	NC brain 1cm below maxilla in include sinus//CTA 1cm below aortic arch					
	NC brain 1cm above skull vertex//CTA 1cm above skull vertex					
DFOV	nc brain:25cm cta:18cm					
	decrease appropriately					
IV contrast volume/rate	80ml isovue 370 3-4cc/sec-Performed as directed by the supervising radiologist					
	contrast should be injected into RT arm if possible					
Scan Delay	bolus track at arch, trigger is + 80					
Note:	The Diagnostic Reference Dose (CTDI vol) is 75mGy(with 16cm CTDI phantom). The pass/fail limit (ACR and Washington state) is 80mGy. Most routine head scans on modern scanners have CTDIvol ranges between 40 and 60mGy.					
	*The AAPM recommended NEXA XR29 Dose Notification Value for an adult head is 80mGy. The maximum CTDIvol 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.					