

Low Dose Lung Screening 16 GE

Indications	Majority of patients screened are between the ages of 55 and 80, Have a smoking history of 30 pack years			
	If no longer smoking, stopped smoking in the past 15 years, Persons who have undergone chest CT within 12 months should be excluded			
	Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially			
	limits life expectancy or the ability or willingness to have curative lung surgery.			
Diagnostic Task	Detect abnormalities that may represent lung cancer and may require further diagnostic evaluation. Detect nodules and masses.			
	For individuals with no known signs or symptoms of lung cancer that have appropriate risk factors, such as those recommended by			
	professional societies and health care organizations. See the ACR LungCancer Screening Resources webpage for more information.			
Scan mode	Helical			
Position/Landmark	Head first-Supine Sternal Notch S25-I350			
Topogram	AP 120kV 10mA Lat 120kV 10mA			
kVp/Reference mass	120kv mA 90 for average pt			
Rotation time/pitch	0.5/1.375:1			
Detector Configuration	16x1.25			
Table Speed/Increment	13.75			
Dose reduction	avg set 90mA= \leq 3mGy			
Allowed CTDI ranges*	0.25 mGy to 8 mGy			
XR29 Dose Notification value	8 mGy			
Helical Set	recon	body part	thickness spacing	recon algorithm destination
	1	chest	1.25mmx 1.25mm	standard pacs
	2	lung	1.25mmx 1.25mm	lung pacs
	3	sag chest	2mmx2mm	standard pacs
	4	coronal chest	2mmx2mm	standard pacs
	5	axial mip lung	10mmx2mm	standard pacs
Scan Start/end location	lung apex			
	lung base			
DFOV	35cm/decrease for lung recons			
IV contrast volume/type	na			
Scan delay	na			
	Approximate Values for CT DIvol			
	Patient size	weight(kg)	weight(lbs)	CTDIvol(mGy)
	SMALL	50-70	110-155	0.25-2.8
	AVERAGE	70-90	155-200	0.5-4.3
	LARGE	90-120	200-265	1.0-5.6
	*The ACR Reference Dose for a "standard size patient" (by definition, is approximately 5' 7" and 155 lbs or 170 cm and 70 kg with a BMI of about 24) is a CT DIvol of less than 3 mGy.			
	*There is no AAPM recommended NEMA XR29 Dose Notification Value for lung screening scans. In general, lung screening exams should not have a CT DIvol greater than 7 mGy. Exams with CT DIvol values less than the minimum allowed range should not be performed unless approved by a radiologist.			

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