Erratum

Erratum to latest CT technologies in lung cancer screening: protocols and radiation dose reduction

Editorial Office

Translational Lung Cancer Research
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doi: 10.21037/tlcr-2021-2
View this article at: http://dx.doi.org/10.21037/tlcr-2021-2

Erratum to: Transl Lung Cancer Res 2021;10:1154-64

This article that appeared on Page: 1154-1164, Vol 10, No 2 (February 2021) Issue of *Translational Lung Cancer Research* (*TLCR*) (1), unfortunately contained a mistake in table 2 for rotation time. The corrected version of *Table 2* is presented here (*Table 2*).

Table 2 International radiological society's CT protocol guidelines

	ACR – STR [Kazerooni *et al.* 2019 (31); ACR 2014 (32)]	ESTI [Revel *et al.* ESTI 2019 (33)]
CT system type	≥16 MDCT	≥32 MDCT, ≥64 prefered
Rotation time	≤750 ms	≤500 ms
Pitch	0.7–1.5*	As suggested by vendors*
Scan duration	Scan time <15 s (single breathhold)	≤10 s (shorter preferred, single breath hold)
Scan mode	Spiral	Spiral
Tube voltage	100 to 140 kVp* for standard sized patient	100 to 120 kVp for standard sized patient 140 kVp for obese participant
	kVP should be set in combination with mAs to meet $CTDI_{vol}$ specifications	Preferably reduce mAs first and then kVp If available: beam-hardening pre-filtering with Sn filter is strongly advised
Tube current	Not specified*	No fixed mAs setting unless at verly low dose
Dose modulation	If available use: automatic tube current modulation, automated kVp selection; if not available: use manual adjusted settings based on patient body habitus and age	If available use: automatic tube current modulation, automated kVp selection, organ dose modulation
Radiation dose ($CTDI_{vol}$)	≤3 mGy for standard patient	Depending on participant weight: <50 kg: 0.4 mGy; 50–80 kg: 0.8 mGy; >80 kg: 1.6 mGy
FOV	Optimized for each patient: 1-cm beyond rib cage; does not need to include entire chest wall thickness	Does not need to include entire chest wall thickness
Slice thickness	≤2.5 mm slice thickness, ≤1.0 mm preferred	≤1.0 mm, ≤0.75 mm preferred, 1.25 mm may be necessary in obese patients
Slice increment	≤ slice thickness Overlapping reconstructions not mandatory	≤ Slice thickness, maximum 0.7 mm Overlapping reconstructions not mandatory

Table 2 (*continued*)

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	ACR – STR [Kazerooni *et al.* 2019 (31); ACR 2014 (32)]	ESTI [Revel *et al.* ESTI 2019 (33)]
Reconstruction algorithm	Consistent with diagnostic CT studies; IR algorithms encouraged	IR or deep learning reconstruction; use of FBP reconstruction algorithms is strongly discouraged
Reconstruction kernel	Standard (mediastinum and lung); additional high spatial frequency (lung parenchyma) is optional	Standard body kernel; additional lung kernel is optional

* should be set with other technical parameters to achieve $CTDI_{vol}$ specifications. ACR-STR, American College of Radiology-Society of Thoracic Radiology; ESTI, European Society of Thoracic Imaging; FBP, filtered-back projection; FOV, field of view; IR, iterative reconstruction; MDCT, multi-detector computed tomography; MIP, maximum intensity projections; MPR, multi-planar reconstruction.

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References

1. Vonder M, Dorrius MD, Vliegenthart R. Latest CT technologies in lung cancer screening: protocols and radiation dose reduction. Transl Lung Cancer Res 2021;10:1154-64.

Cite this article as: Editorial Office. Erratum to latest CT technologies in lung cancer screening: protocols and radiation dose reduction. Transl Lung Cancer Res 2021;10(4):2101-2102. doi: 10.21037/tlcr-2021-2

