

**Table E1: Details of the Acquisition Parameters for Simulation CT and Diagnostic CT**

Patient No.	Display Field of View (mm)		Tube Current (mA)		Peak Voltage (kVp)		Section Thickness (mm)		Pixel Size (mm)	
	Simulation CT	Diagnostic CT	Simulation CT	Diagnostic CT	Simulation CT	Diagnostic CT	Simulation CT	Diagnostic CT	Simulation CT	Diagnostic CT
1	500	250	283	160	120	120	3	1.25	0.98	0.49
2	500	250	100	220	120	120	3.75	1.25	0.98	0.49
3	500	250	208	200	120	120	2.5	1.25	0.98	0.49
4	500	250	283	160	120	120	3	1.25	0.98	0.49
5	500	250	297	160	120	120	2.5	1.25	0.98	0.49
6	500	250	208	160	120	120	2.5	1.25	0.98	0.49
7	500	300	283	407	120	120	3	1.25	0.98	0.59
8	500	250	200	160	100	120	3.75	1.25	0.98	0.49
9	500	250	283	160	120	120	2	1.25	0.98	0.49
10	500	250	283	220	120	120	3	1.25	0.98	0.49
11	500	250	283	160	120	120	3	1.25	0.98	0.49
12	500	250	283	160	120	120	1	1.25	0.98	0.49
13	500	280	208	436	120	120	2.5	3.75	0.98	0.55
14	500	250	297	160	120	120	2.5	1.25	0.98	0.49
15	500	250	283	160	120	120	3	1.25	0.98	0.49
16	500	250	297	160	120	120	2.5	1.25	0.98	0.49
17	500	250	208	220	120	120	2.5	1.25	0.98	0.49
18	500	250	208	160	120	120	2.5	1.25	0.98	0.49
19	500	236	280	200	120	120	3	2.5	0.98	0.46
20	500	250	283	160	120	120	3	1.25	0.98	0.49

**Table E2. Details of the Anatomic ROIs Contoured**

Bone Landmarks	Cartilage	Gland	Muscles	Soft Tissues	Vessels
C1 vertebra	Thyroid cartilage	Pituitary gland	Superior pharyngeal constrictor	Hypothalamus	Right and left internal carotid artery
C2 vertebra	Cricoid cartilage	Right and left parotid gland	Middle pharyngeal constrictor	Brainstem	Right and left internal jugular vein
C3 vertebra	Larynx	Right and left submandibular gland	Inferior pharyngeal constrictor	Soft palate	
C4 vertebra			Genioglossus	Upper lip	
C5 vertebra		Right and left thyroid lobe	Mylohyoid	Lower lip	
C6 vertebra			Tongue	Esophagus	
C7 vertebra			Right and left anterior digastric muscles		
T1 vertebra			Right and left anterior scalene muscles		
Right and left jugular foramen			Right and left buccinator		
Right and left mastoid process			Right and left medial pterygoid		
Hard palate			Right and left lateral pterygoid		
Mandible			Right and left levator scapulae		
Hyoid bone			Right and left masseter		
Right and left clavicle			Right and left platysma		
Manubrium			Right and left post digastric muscles		
			Right and left posterior scalene muscles		
			Right and left sternocleidomastoid		
			Right and left trapezius		

