

**Table S1:** Dose constraints used in treatment planning

<b>Structure</b>	<b>Dose volume metrics</b>	<b>Constraint</b>
<b>PTV_7000</b>	<b>V95%<sup>£</sup></b>	<b>≥95-98%</b>
	<b>V100%<sup>#</sup></b>	<b>≥95%</b>
	<b>V110%<sup>†</sup></b>	<b>≤20%</b>
	<b>V115%<sup>  </sup></b>	<b>≤5%</b>
<b>PTV_6000</b>	<b>V95%</b>	<b>≥95~98%</b>
	<b>V100%</b>	<b>≥95%</b>
<b>PTV_5400</b>	<b>V95%</b>	<b>≥95~98%</b>
	<b>V100%</b>	<b>≥95%</b>

Abbreviations: PTV, planning target volume;

£: Percentage dose covering 95% of the PTV

#: Percentage dose covering 100% of the PTV

†: Percentage volume that received > 110% of the Rx (prescribed dose)

||: Percentage volume that received > 115% of the Rx (prescribed dose)

**Table S2:** Dose constraints used for OARs evaluation

Priority	Structure	Dose volume metrics	Constraint
Priority 1: Critical OARs	SpinalCord_PRV	D1 <sup>¶</sup>	≤5000cGy
	BrainStem_PRV	D1	≤6000cGy
	OpticNerves_L PRV	D1	≤6000cGy
	OpticNerves_R PRV	D1	≤6000cGy
	Chiasm_PRV	D1	≤6000cGy
	TemporalLobe_L. PRV	D1	<6500cGy
	TemporalLobe_L. PRV	D1	<6500cGy
Priority 2: Intermediate-Risk OARs	Pituitary	Dmax <sup>†</sup>	<6000cGy
	Mandible_L	V50 <sup>®</sup>	<30%
	Mandible_R	V50 <sup>®</sup>	<30%
	TM joint_L	Dmax	<7000cGy
	TM joint_R	Dmax	<7000cGy
	Lens_L	Dmax	<600cGy
	Lens_R	Dmax	<600cGy
	Eye_L	Dmean <sup>‡</sup>	<3500cGy
	Eye_R	Dmean	<3500cGy
	BrachialPlex_L	Dmax	<6600cGy
	BrachialPlex_R	Dmax	<6600cGy
	Parotid_L	Dmean	< 26 00cGy
	Parotid_R	Dmean	< 2600cGy
	Submandibular_L	Dmean	<3500cGy
	Submandibular_R	Dmean	<3500cGy
	OralCavity	D1	<7000cGy
	Cochlea_L	Dmean	<4500cGy
	Cochlea_R	Dmean	<4500cGy
	IAC_L	Dmean	<4500cGy

Priority 3: Low-Risk OARs	IAC_R	Dmean	<4500cGy
	VestibulSemi_L	Dmean	<4500cGy
	VestibulSemi_R	Dmean	<4500cGy
	Cochlea_L	Dmean	<5000cGy
	Cochlea_R	Dmean	<5000Gy
	Eustachian tube_L	Dmean	<5300cGy
	Eustachian tube_R	Dmean	<5300cGy
	TympanicCavity_L	Dmean	<3400cGy
	TympanicCavity_R	Dmean	<3400cGy
	Mastoid_L	Dmean	<3000cGy
	Mastoid_R	Dmean	<3000cGy
	Larynx_Glottic	Dmean	<5000cGy
	Larynx_Supraglottic	Dmean	<5000cGy
	PharynxConst_I	Dmean	<5000cGy
	PharynxConst_M	Dmean	<5000cGy
	PharynxConst_S	Dmean	<5000cGy
	Esophagus	V35 (%) &	<50%
	Trachea	Dmean	<4500cGy
	Thyroid	Dmean	<4500cGy

Abbreviations: PRV, planning risk volume; L, left; R, right; TMjoint, temporomandibular joint; IAC, internal auditory canal; VestibulSemi, vestibule and semicircular canal; PharynxConst\_I, inferior constrictor of pharynx; PharynxConst\_M, middle constrictor of pharynx; PharynxConst\_S, superior constrictor of pharynx.

¶: The dose received by 1% of the volume;

†: maximum dose;

‡: mean dose;

®: The percentage volume that received > 50 Gy;

&: percentage volume of esophagus which received >35 Gy radiation.