EPTN consensus-based guideline for the tolerance dose per fraction of organs at risk in the brain

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	Dose constraint EQD2	Tolerance dose (physical dose, depending on number of fractions)																										α/β [Gy]	Toxicity
Fractions		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
Organ at risk																													
Brain [3-7]	$V_{60Gy} < 3cc$	46.8	48.0	49.1	50.1	51.1	52.1	53.0	53.9	54.8	55.6	56.4	57.2	57.9	58.6	59.3	60.0	60.7	61.3	61.9	62.5	63.1	63.7	64.2	64.8	65.3	65.8	2	symptomatic brain necrosis
Brainstem [8-17]	Interior $D_{0.03cc} \leq 54Gy$	43.9	44.9	45.9	46.9	47.8	48.7	49.5	50.4	51.1	51.9	52.6	53.3	54.0	54.7	55.3	55.9	56.5	57.1	57.6	58.2	58.7	59.2	59.8	60.2	60.7	61.2	2	Permanente craniale neuropathie of necrosis
	Surface $D_{0.03cc} \leq 60$ Gy	46.8	48.0	49.1	50.1	51.1	52.1	53.0	53.9	54.8	55.6	56.4	57.2	57.9	58.6	59.3	60.0	60.7	61.3	61.9	62.5	63.1	63.7	64.2	64.8	65.3	65.8		
Chiasm & Optic nerve [18-25]	$D_{0.03cc} \leq 55$ Gy	44.4	45.4	46.5	47.5	48.4	49.3	50.1	51.0	51.8	52.5	53.3	54.0	54.7	55.3	56.0	56.6	57.2	57.8	58.4	58.9	59.5	60.0	60.5	61.0	61.5	62.0	2	Optic neuropathy
Cornea [26,27]	$D_{0.03cc} \leq 50$ Gy	42.7	43.6	44.5	45.3	46.1	46.8	47.5	48.2	48.8	49.4	50.0	50.6	51.1	51.6	52.1	52.6	53.1	53.5	53.9	54.4	54.8	55.2	55.5	55.9	56.3	56.6	3	Erosion/ulceration
Lens [28,29]	$D_{0.03cc} \leq 10$ Gy	15.0	15.3	15.6	15.9	16.2	16.5	16.7	16.9	17.2	17.4	17.6	17.8	18.0	18.2	18.4	18.5	18.7	18.9	19.0	19.2	19.3	19.5	19.6	19.7	19.9	20.0	1	Cataract
Retina [18,26,30,31]	$D_{0.03cc} \leq 45$ Gy	39.8	40.6	41.4	42.1	42.8	43.5	44.1	44.7	45.3	45.8	46.4	46.9	47.3	47.8	48.2	48.7	49.1	49.5	49.9	50.2	50.6	51.0	51.3	51.6	51.9	52.2	3	Loss of vision
Skin [32]	$D_{0.03cc} \leq 25$ Gy	26.5	27.1	27.6	28.1	28.5	29.0	29.4	29.8	30.2	30.6	30.9	31.2	31.6	31.9	32.2	32.4	32.7	33.0	33.2	33.5	33.7	34.0	34.2	34.4	34.6	34.8	2	Permanent alopecia

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