Supplementary Table 1: Definition of primary tumour (cT) in The 7th edition, American Joint Committee on Cancer (AJCC) staging for Retinoblastoma.¹³

| | | · | | | |
|-----|------|---|--|--|--|
| cTX | | Primary tumor cannot be assessed | | | |
| сТО | | No evidence of primary tumor | | | |
| cT1 | | Tumors no more than 2/3 the volume of the eye with no vitreous or subretinal seeding | | | |
| | cT1a | No tumor in either eye is greater than 3 mm in largest dimension or located closer than 1.5 mm to the optic nerve or fovea | | | |
| | cT1b | At least one tumor is greater than 3 mm in largest dimension or located closer than 1.5 mm to the optic nerve or fovea. No retinal detachment or subretinal fluid beyond 5 mm from the base of the tumor | | | |
| | cT1c | At least one tumor is greater than 3 mm in largest dimension or located closer than 1.5 mm to the optic nerve or fovea, with retinal detachment or subretinal fluid beyond 5 mm from the base of the tumor | | | |
| cT2 | | Tumors no more than 2/3 the volume of the eye with vitreous or subretinal seeding. Can have retinal detachment | | | |
| | cT2a | Focal vitreous and/or subretinal seeding of fi ne aggregates of tumor cells is present, but no large clumps or "snowballs" of tumor cells | | | |
| | cT2b | Massive vitreous and/or subretinal seeding is present, defined as diffuse clumps or "snowballs" of tumor cells | | | |
| сТ3 | | Severe intraocular disease | | | |
| | сТ3а | Tumor fills more than 2/3 of the eye | | | |
| | cT3b | One or more complications present, which may include tumor-associated neovascular or angle closure glaucoma, tumor extension into the anterior segment, hyphema, vitreous hemorrhage, or orbital cellulitis | | | |
| cT4 | | Extraocular disease detected by imaging studies | | | |
| | cT4a | Invasion of optic nerve | | | |

| | cT4b | Invasion into the orbit | | | | | |
|-------|----------|---|--|--|--|--|--|
| | сТ4с | Intracranial extension not past chiasm | | | | | |
| | cT4d | Intracranial extension past chiasm | | | | | |
| Defin | ition of | regional lymph nodes (cN) | | | | | |
| cNX | | Regional lymph nodes cannot be assessed | | | | | |
| cN0 | | No regional lymph nodes involvement | | | | | |
| cN1 | | Regional lymph node involvement (preauricular, cervical, submandibular) | | | | | |
| cN2 | | Distant lymph node involvement | | | | | |
| Defin | ition of | distant metastasis (M) | | | | | |
| сМ0 | | No metastasis | | | | | |
| cM1 | | Systemic metastasis | | | | | |
| | cM1a | Single lesion to sites other than CNS | | | | | |
| | cM1b | Multiple lesions to sites other than CNS | | | | | |
| | cM1c | Prechiasmatic CNS lesion(s) | | | | | |
| | cM1d | Postchiasmatic CNS lesion(s) | | | | | |
| | cM1e | Leptomeningeal and/or CSF involvement | | | | | |
| | | ter 44: Retinoblastoma. In: Edge SD, Byrd DR, Carducci MA, Compton CC, eds. Staging Manual. 7th ed. New York, NY: Springer; 2009. | | | | | |

Supplementary Table 2: Definition of primary tumour (cT) in The 8th edition, American Joint Committee on Cancer (AJCC) staging for Retinoblastoma ¹⁴

| cTX | | Unknown evidence of intraocular tumour | | | | |
|-----|------|---|--|--|--|--|
| сТ0 | | No evidence of intraocular tumour | | | | |
| cT1 | | Intraocular tumour(s) with sub-retinal fluid \leq 5mm from the base of any tumour | | | | |
| | cT1a | Tumours ≤ 3mm and further than 1.5 mm from the disc and fovea | | | | |
| | cT1b | Tumours > 3 mm or closer than 1.5 mm to the disc and fovea | | | | |
| cT2 | | Intraocular tumour(s) with retinal detachment, vitreous seeding or sub-retinal seeding | | | | |
| | cT2a | Sub-retinal fluid > 5 mm from the base of any tumour | | | | |
| | cT2b | Tumours with vitreous seeding and/or sub-retinal seeding | | | | |
| сТ3 | | Advanced intraocular tumour(s) | | | | |
| | сТ3а | Phthisis or pre-phthisis bulbi | | | | |
| | cT3b | Tumour invasion of the pars plana, ciliary body, lens, zonules, iris or anterior chamber | | | | |
| | сТ3с | Raised intraocular pressure with neovascularization and/or buphthalmos | | | | |
| | cT3d | Hyphema and/or massive vitreous hemorrhage | | | | |
| | сТ3е | Aseptic orbital cellulitis | | | | |
| cT4 | | Extraocular tumour(s) involving the orbit, including the optic nerve | | | | |
| | сТ4а | Radiological evidence of retrobulbar optic nerve involvement or thickening of the optic nerve or involvement of the orbital tissues | | | | |
| | cT4b | Extraocular tumour clinically evident with proptosis and orbital mass | | | | |

| Defin | ition of | regional lymph nodes (cN) | | | |
|-------|----------|---|--|--|--|
| cNX | | Regional lymph nodes cannot be assessed | | | |
| cN0 | | No regional lymph nodes involvement | | | |
| cN1 | | Evidence of preauricular, submandibular, and cervical lymph node involvement | | | |
| Defin | ition of | distant metastasis (M) | | | |
| сМ0 | | No signs or symptoms of intracranial or distant metastasis | | | |
| cM1 | | Distant metastasis without microscopic confirmation | | | |
| | cM1a | Tumour(s) involving any distant site (e.g. bone marrow, liver) on clinical or radiological tests | | | |
| | cM1b | Tumour involving the central nervous system on radiological imaging (not including trilateral retinoblastoma) | | | |
| pM1 | | Distant metastasis with microscopic confirmation | | | |
| | pM1a | Histopathological confirmation of tumour at any distant site (e.g. bone marrow liver, or other) | | | |
| | pM1b | Histopathological confirmation of tumour in the cerebrospinal fluid or CNS parenchyma | | | |
| Defin | ition of | heritable trait (H) | | | |
| HX | | Unknown or insufficient evidence of a constitutional RB1 gene mutation | | | |
| H0 | | Normal RB1 alleles in blood tested with demonstrated high sensitivity assays | | | |
| H1 | | Bilateral retinoblastoma, retinoblastoma with an intracranial CNS midline embryonic tumour (i.e. trilateral retinoblastoma), patient with family history of retinoblastoma, or molecular definition of constitutional RB1 gene mutation | | | |
| SB, G | Freene F | patna AC, Gallie BL, Chévez-Barrios P, et al. Retinoblastoma. In: Amin MB, Edge L, Byrd DR, Brookland RK, Washington MK, et al., editors. AJCC Cancer Staging ed. New York: Springer; 2017. pp. 819-831. | | | |