

APPENDIX I. Prognostic scoring in patients with brain metastases¹⁸⁻²²

Abbreviations: BSBM = Basic Score for Brain Metastases; CNS = central nervous system; DS-GPA = Disease-Specific Grade Prognostic Assessment; GPA = Grade Prognostic Assessment; KPS = Karnofsky Performance Status; N/A = not applicable; RTOG RPA = Radiation Therapy Oncology Group Recursive Partitioning Analysis; SIR = The Score Index for Radiosurgery

RTOG RPA class	Criteria
I	Patients <65 years KPS score ≥70 Controlled primary tumour No extracranial metastases
II	All patients not in class I or III
III	KPS score <70

	BSBM score	
	0	1
KPS score	50-70	80-100
Control of primary tumour	No	Yes
Extracranial metastases	Yes	No

	SIR score		
	0	1	2
Age (years)	≥60	51-59	≤50
KPS score	≤50	60-70	80-100
Systemic disease	Progressive	Stable	Complete response or no evidence of disease
No. of lesions	≥3	2	1
Volume of the largest lesion (mL)	>13	5-13	<5

	GPA score		
	0	0.5	1.0
Age (years)	>60	50-59	<50
KPS score	<70	70-80	90-100
No. of CNS metastases	>3	2-3	1
Extracranial metastases	Present	-	None

Factor	DS-GPA score						
	0	0.5	1.0	1.5	2.0	3.0	4.0
Lung							
Age (years)	>60	50-60	<50	-	-	-	-
KPS score	<70	70-80	90-100	-	-	-	-
Extracranial metastases	Present	-	Absent	-	-	-	-
No. of brain metastases	>3	2-3	1	-	-	-	-
Melanoma							
KPS	<70	-	70-80	-	90-100	-	-
No. of brain metastases	>3	-	2-3	-	1	-	-
Breast							
KPS	<50	60	70-80	90-100	N/A	-	-
Subtype	Basal	N/A	Luminal A	Her2	Luminal B	-	-
Age (years)	≥60	<60	N/A	N/A	N/A	-	-
Renal cell carcinoma							
KPS	<70	-	70-80	-	90-100	-	-
No. of brain metastases	>3	-	2-3	-	1	-	-
Gastrointestinal							
KPS	<70	-	70	-	80	90	100