

Supplementary Table 1. Summary of Non-Haematological Toxicities

Toxicities, n (%)	All Patients (N=62)	Bu-Mel (N=32)	Mel (N=30)	p-value
Overall				
None	0	0	0	< 0.001
Grade 1	5 (8)	0	5 (17)	
Grade 2	22 (35)	6 (19)	16 (53)	
Grade 3	35 (56)	26 (81)	9 (30)	
Grade 4	0	0	0	
Diarrhea				
None	23 (37)	12 (38)	11 (37)	0.90
Grade 1	31 (50)	15 (47)	16 (53)	
Grade 2	6 (10)	4 (13)	2 (7)	
Grade 3	2 (3)	1 (3)	1 (3)	
Grade 4	0	0	0	
Mucositis				
None	15 (24)	1 (3)	14 (47)	< 0.001
Grade 1	18 (29)	7 (22)	11 (37)	
Grade 2	25 (40)	20 (63)	5 (17)	
Grade 3	4 (6)	4 (13)	0	
Grade 4	0	0	0	
Nausea				
None	3 (5)	2 (6)	1 (3)	0.36
Grade 1	13 (21)	4 (13)	9 (30)	
Grade 2	42 (68)	23 (72)	19 (63)	
Grade 3	4 (6)	3 (9)	1 (3)	
Grade 4	0	0	0	
Alanine transaminase elevation				
None	51 (82)	22 (69)	29 (97)	0.010
Grade 1	9 (15)	8 (25)	1 (3)	
Grade 2	2 (3)	2 (6)	0	
Grade 3	0	0	0	
Grade 4	0	0	0	
Aspartate transaminase elevation				
None	61 (98)	32 (100)	29 (97)	0.48

Toxicities, n (%)	All Patients (N=62)	Bu-Mel (N=32)	Mel (N=30)	p-value
Grade 1	1 (2)	0	1 (3)	
Grade 2	0	0	0	
Grade 3	0	0	0	
Grade 4	0	0	0	
Bilirubin elevation				
None	52 (84)	27 (84)	25 (83)	0.92
Grade 1	7 (11)	3 (9)	4 (13)	
Grade 2	2 (3)	1 (3)	1 (3)	
Grade 3	1 (2)	1 (3)	0	
Grade 4	0	0	0	
Neutropenic fever				
None	31 (50)	10 (31)	21 (70)	0.005
Grade 1	0	0	0	
Grade 2	0	0	0	
Grade 3	31 (50)	22 (69)	9 (30)	
Grade 4	0	0	0	

Supplementary Table 2. Summary of Progression-Free and Overall Survival - Univariate

Measure	Group	3 yr rate (95% CI)	Median (95% CI) in months	p-value	HR (95% CI)	p-value
PFS	All patients	56 (42, 68)	43.0 (25.7, NE)	-		
	Mel	41 (22, 59)	25.7 (16.5, NE)	0.044	<i>ref</i>	0.049
	Bu-Mel	69 (50, 82)	44.7 (31.9, NE)			
OS	All patients	89 (77, 95)	NE (NE, NE)	-		
	Mel	87 (65, 96)	NE (44.0, NE)	0.50	<i>ref</i>	0.51
	Bu-Mel	90 (73, 97)	NE (NE, NE)			

Abbreviations: CI = confidence interval; HR = hazard ratio; NE = not estimated/not reached; *ref*= reference group.

Supplementary Table 3. Bayesian piecewise exponential survival time regression model – Progression-Free Survival (N=48 number of events=24)

Measure	Posterior Quantities				
	Mean of β	SD of β	Posterior 95% Credible Interval		Pr($\beta > 0$ Data)
Bu-Mel treatment	-0.574	0.449	-1.446	0.311	0.102†
≥ 60 years of age	-0.212	0.431	-1.065	0.607	0.312
ISS Stage III	-0.621	0.672	-1.981	0.598	0.175
PR or better to induction therapy	0.998	1.197	-1.102	3.556	0.800

† Moderately significant.

Abbreviation: SD = standard deviation.

Notes: Number of intervals used: 3.

Bu-Mel vs. Mel Mean HR (95% HPD Interval) = 0.62 (0.18, 1.21).