SUPPLEMENT

Real-world outcomes in patients with melanoma brain metastasis: a US multisite retrospective chart review study of systemic treatments

Isabella C. Glitza Oliva,¹ Jennell Palaia,² Leon A. Sakkal,² Divya Patel,² Andriy Moshyk,² Natalia Han,³ Shardul Odak,³ Jordana K. Schmier,⁴ Ning Ning,⁴ Sunandana Chandra⁵

¹The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ²Bristol Myers Squibb, Princeton, NJ, USA; ³RTI Health Solutions, Research Triangle Park, NC, USA; ⁴Open Health, Bethesda, MD, USA; ⁵Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL, USA

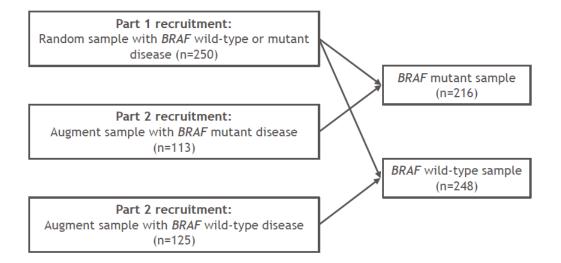
Supplemental table 1. Types of radiation therapy

	Nivolumab plus ipilimumab (n=246)	Anti-PD-1 monotherapy (n=112)	BRAF/MEK inhibitor (n=114)	Overall (n=472)
Type of first radiation	n=54	n=33	n=40	n=127
therapy,* n (%)	07 (00)	0.4 (70)	00 (00)	0.4 (7.4)
Stereotactic	37 (69)	24 (73)	33 (82)	94 (74)
IMRT	13 (24)	6 (18)	3 (8)	22 (17)
3D-CRT	4 (7)	3 (9)	4 (10)	11 (9)
Type of second radiation	n=1	n=0	n=4	n=5
therapy, n (%)				
Stereotactic	1 (100)	0	4 (100)	5 (100)
IMRT	0	0	0	0
3D-CRT	0	0	0	0

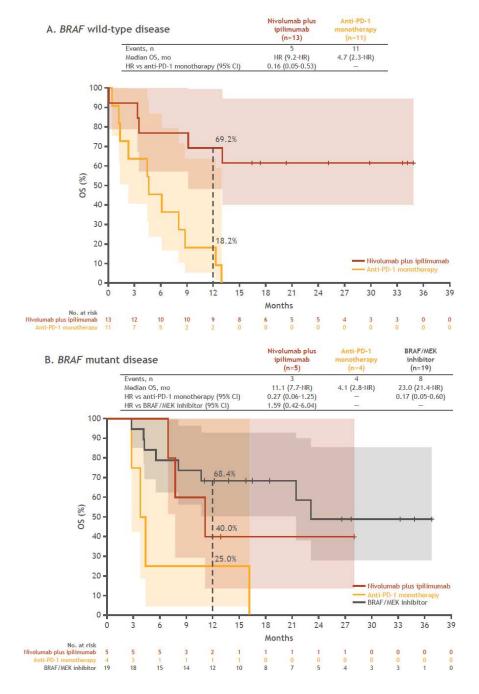
^{*}Two patients had two types of radiation therapy starting on the same date, and both types were accounted as the first radiation therapy.

³D-CRT, three-dimensional conformal radiation therapy; IMRT, intensity-modulated radiation therapy; PD-1, programmed death-1.

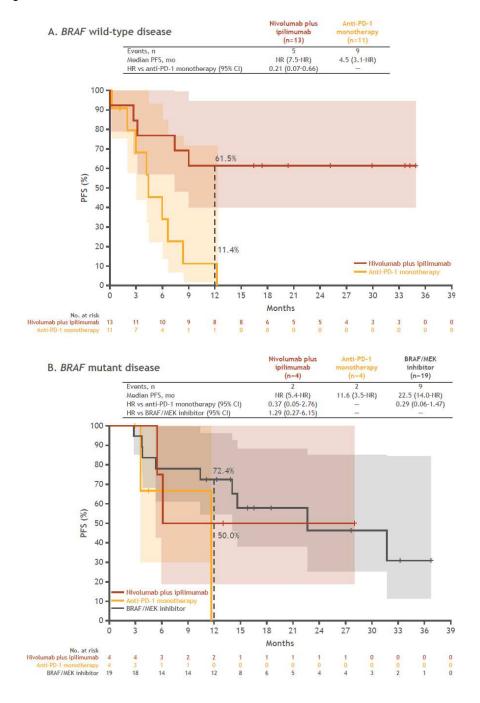
Supplemental figure 1. Study design. Study recruitment employed a two-part design in which a random sample of patients with *BRAF* mutant or wild-type metastatic melanoma with brain metastases (n=250) was identified first, followed by the identification of an augment *BRAF* mutant sample (n=113) and an augment *BRAF* wild-type sample (n=125).



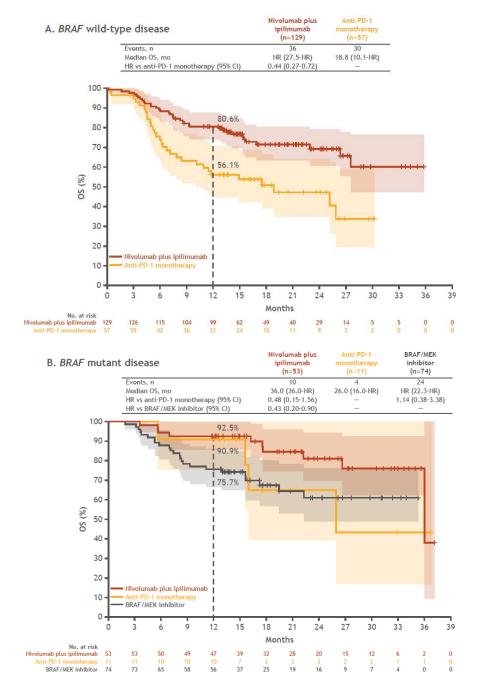
Supplemental figure 2. OS in patients with symptomatic MBM by first-line treatment and *BRAF* status. Shaded areas indicate 95% CIs. CI, confidence interval; HR, hazard ratio; MBM, melanoma brain metastasis; mo, month; NR, not reached; OS, overall survival; PD-1, programmed death-1.



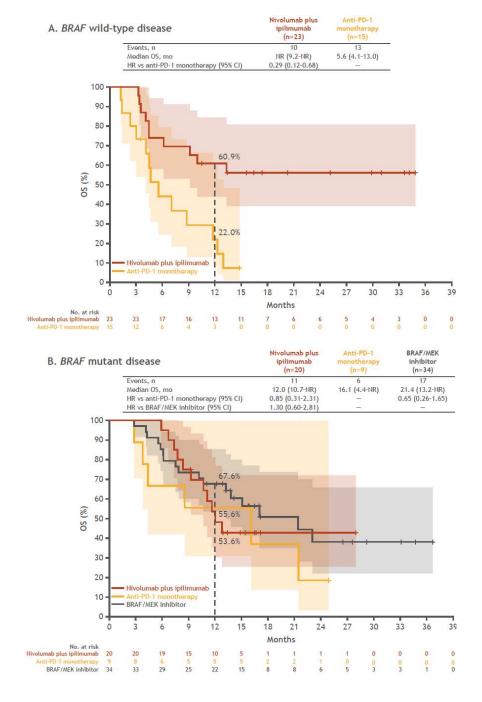
Supplemental figure 3. PFS in patients with symptomatic MBM by first-line treatment and *BRAF* status. Shaded areas indicate 95% CIs. CI, confidence interval; HR, hazard ratio; MBM, melanoma brain metastasis; mo, month; NR, not reached; PD-1, programmed death-1; PFS, progression-free survival.



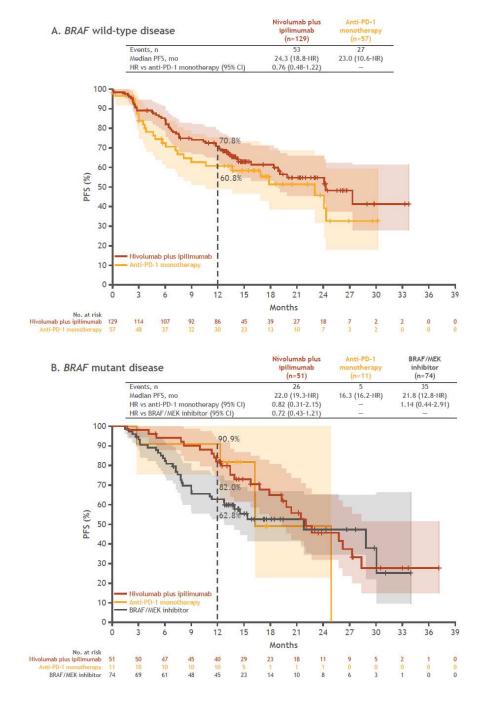
Supplemental figure 4. OS in patients with MBM without concurrent radiation by first-line treatment and *BRAF* status. Shaded areas indicate 95% CIs. CI, confidence interval; HR, hazard ratio; MBM, melanoma brain metastasis; mo, month; NR, not reached; OS, overall survival; PD-1, programmed death-1.



Supplemental figure 5. OS in patients with MBM with concurrent radiation by first-line treatment and *BRAF* status. Shaded areas indicate 95% CIs. CI, confidence interval; HR, hazard ratio; MBM, melanoma brain metastasis; mo, month; NR, not reached; OS, overall survival; PD-1, programmed death-1.



Supplemental figure 6. PFS in patients with MBM without concurrent radiation by first-line treatment and *BRAF* status. Shaded areas indicate 95% CIs. CI, confidence interval; HR, hazard ratio; MBM, melanoma brain metastasis; mo, month; NR, not reached; PD-1, programmed death-1; PFS, progression-free survival.



Supplemental figure 7. PFS in patients with concurrent radiation by first-line treatment and *BRAF* status. Shaded areas indicate 95% CIs. CI, confidence interval; HR, hazard ratio; mo, month; NR, not reached; PD-1, programmed death-1; PFS, progression-free.

