

# Abstract #168312

## Second-line drug regimens in metastatic melanoma patients based on BRAF mutation status: A Canadian real-world retrospective study.

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**Background:** Overall survival for metastatic melanoma patients has improved with targeted- and immuno-therapies. This study describes the second-line drug regimens in these patients based on their BRAF mutation status. **Methods:** This retrospective observational study utilized *IMS Health Real-World Oncology Data*, an anonymised patient database which includes patient and treatment metrics. This database is populated via an electronic questionnaire completed by physicians who treat metastatic melanoma patients. Second-line regimens, BRAF mutation status, co-morbidities and sites of metastasis were identified in a subset (N=383) of stage IV patients treated in Canada between October 2014 and September 2015. The second-line drug regimens were classified as immuno-, targeted-, combined immuno- and targeted- and chemotherapy. The proportions of patients receiving each treatment modality were compared across the BRAF mutation status populations, with statistical testing of the differences at a 5% level of significance. **Results:** Of the 383 study patients receiving second-line treatment, 204 (53%) were BRAF+, 126 (33%) were BRAF- and 53 (14%) had unknown BRAF status. A statistically higher proportion of patients diagnosed as BRAF+ received targeted therapy compared to patients diagnosed as BRAF- ( $p < 0.05$ ). Whereas, a statistically higher proportion of the patients diagnosed as BRAF- were treated with immunotherapy compared to BRAF+ patients ( $p < 0.05$ ). Within our data, a subset of patients (N=28) received combined immuno- and targeted-therapies, predominantly in the BRAF+ patient group. **Conclusions:** The second-line landscape in metastatic melanoma is now dominated by immuno- and targeted-therapies in Canada. The synergistic effects of combining these two modalities are currently an area of research and this practice has been captured in our dataset. This study provides real-world evidence of the use of immuno- and targeted-therapies in patients with metastatic melanoma.

Therapeutic Base	BRAF+ (%)	BRAF- (%)	Unknown BRAF Status(%)
Immunotherapies	21%	70%	36%
Targeted Therapies	45%	7%	21%
Combined Immuno- and Targeted-therapies	13%	1%	0%
Chemotherapies	22%	22%	43%