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## Second primary malignancy (SPM) in patients (pts) with multiple myeloma (MM) receiving chimeric antigen receptor T-cell (CAR T) therapy or other systemic anticancer therapy (SACT): A comparative study using a real-world database

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**Supplementary Table 1.** Baseline covariates for IPTW

**Demographic variables**

Age at index
Time from diagnosis to index
Sex
Race
Ethnicity
Region of residence
<b>Lifestyle and health history variables</b>
Ever smoking
Alcoholic liver disease
Obesity
HIV infection
HPV infection
HBV/HCV infection
EBV infection
Charlson comorbidity index
History of solid malignancies—number of types
History of aggressive NHL
History of indolent NHL
History of non-NHL hematologic malignancies

**Clinical and treatment variables**

Current LoT at index treatment
Prior allogeneic SCT
Prior autologous SCT
Prior radiation therapy
Number of doses of melphalan received
Number of doses of alkylating agents other than melphalan
Number of doses of non-alkylating chemotherapy
Number of doses of lenalidomide received
Number of doses of immunomodulators other than lenalidomide received

**Abbreviations**

AML, acute myeloid leukemia; CAR T, chimeric antigen receptor T-cell; CI, confidence interval; EBV, Epstein-Barr virus; EAIR, exposure-adjusted incidence rate; HBV, hepatitis B virus; HCV, hepatitis C virus; HIV, human immunodeficiency virus; HPV, human papillomavirus; ICD-10, International Classification of Diseases 10<sup>th</sup> Edition; IPTW, inverse probability of treatment weighting; LoT, line of therapy; MDS, myelodysplastic syndrome; MM, multiple myeloma; NHL, non-Hodgkin lymphoma; SPM, second primary malignancy; SACT, systemic anticancer therapy; SCT, stem cell transplantation.

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**Supplementary Table 2.** Overall IPTW EAIR (per 100 person-years) of SPM by treatment group at 24 months post-index

Malignancy	Analysis	No. of events	CAR T		Other SACT	
			EAIR, per 100 person-years (95% CI)	No. of events	EAIR, per 100 person-years (95% CI)	
Hematologic malignancies	Any malignancy	Primary	56	<b>21.99 (16.61, 28.55)</b>	50	<b>18.92 (14.02, 24.97)</b>
		Sensitivity	28	<b>10.43 (6.93, 15.07)</b>	20	<b>6.99 (4.25, 10.84)</b>
	Any hematologic	Primary	42	<b>15.87 (11.44, 21.46)</b>	29	<b>10.60 (7.10, 15.23)</b>
		Sensitivity	16	<b>5.77 (3.30, 9.38)</b>	10	<b>3.39 (1.61, 6.30)</b>
	B-cell	Primary	11	3.97 (1.98, 7.10)	11	3.88 (1.94, 6.94)
		Sensitivity	2	0.71 (0.09, 2.56)	4	1.26 (0.32, 3.37)
T-cell	Primary	2	0.71 (0.09, 2.57)	1	0.18 (0.00, 1.62)	
	Sensitivity	0	0.00 (0.00, 1.31)	0	0.01 (0.00, 1.28)	
MDS	Primary	12	4.31 (2.23, 7.53)	6	2.04 (0.73, 4.47)	
	Sensitivity	7	2.50 (1.01, 5.15)	3	0.90 (0.16, 2.83)	
Other hematologic*	Primary	7	2.27 (4.44, 11.22)	14	5.08 (2.80, 8.48)	
	Sensitivity	8	2.86 (1.24, 5.64)	4	1.37 (0.37, 3.53)	
Solid malignancies	Any solid	Primary	19	<b>6.99 (4.21, 10.91)</b>	25	<b>9.08 (5.88, 13.39)</b>
		Sensitivity	13	<b>4.75 (2.53, 8.12)</b>	10	<b>3.63 (1.77, 6.61)</b>
	Breast	Primary	1	0.36 (0.01, 1.99)	2	0.55 (0.04, 2.26)
		Sensitivity	1	0.36 (0.01, 1.99)	0	0.07 (0.00, 1.42)
	Lung	Primary	0	0.00 (0.00, 1.31)	2	0.80 (0.12, 2.67)
		Sensitivity	0	0.00 (0.00, 1.31)	1	0.17 (0.00, 1.62)
	Prostate	Primary	1	0.35 (0.01, 1.98)	2	0.67 (0.08, 2.47)
		Sensitivity	1	0.35 (0.01, 1.98)	1	0.44 (0.02, 2.09)
	Colorectal	Primary	3	1.07 (0.22, 3.12)	2	0.78 (0.11, 2.64)
		Sensitivity	3	1.07 (0.22, 3.12)	2	0.69 (0.08, 2.50)
	Melanoma	Primary	1	0.35 (0.01, 1.97)	3	0.92 (0.16, 2.85)
		Sensitivity	0	0.00 (0.00, 1.31)	1	0.18 (0.00, 1.62)
Other solid	Primary	13	4.70 (2.50, 8.04)	16	5.51 (3.12, 9.00)	
	Sensitivity	8	2.88 (1.24, 5.67)	6	2.15 (0.80, 4.63)	

The sensitivity analysis used patients with ≥2 ICD-10 codes for SPM on separate days.

\*Almost all of the cases were AML.

**Disclosures**

**AS:** Consultancy for Janssen Oncology and GSK.

**ML, OOO, CH, MP, AB, PS, TR, NM, AS, DJL, JG, KK, GSK, KRL:** Current employment, and holder of stock options, in Regeneron Pharmaceuticals, Inc.

**References**

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