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Supplemental Materials for

Harmonization of PD-L1 Testing in Oncology: Canadian Pathology Perspective

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Listing of Supplemental Material(s):

Supplemental Appendix 1: Key ongoing studies of checkpoint inhibitors in NSCLC, HNSCC, and UC

Appendix A. Key ongoing studies of checkpoint inhibitors in NSCLC, HNSCC, and UC

Agent	Study	ORR, %	ORR PD-L1 positive, %	ORR PD-L1 negative, %	PD-L1 cut-off, %
Non-Small Cell Lung Cancer					
Atezolizumab	OAK[1]; 2L/3L	14	18	8	TC ≥1%
	BIRCH[2]; 1L	26	35	18	TC ≥ 50% or IC ≥ 10%
Avelumab	JAVELIN[3]; ≥2L	12	16	10	TC ≥1%
Durvalumab	Study 1108[4]; ≥2L	NG	25	6	TC ≥25%
Durvalumab + Tremelimumab	Study 006[5]; 1L, ≥2L	23	22	29–40	TC ≥25%
Nivolumab	CheckMate-057[6]; ≥2 L	19	31	9	TC ≥1%
	CheckMate-017[7]; 2L	20	17	17	TC ≥1%
	CheckMate-026[8]; 1L	NG	26	NG	TC ≥5%
Nivolumab + Ipilimumab	CheckMate-012[9]; 1L	38–47	57	0–30	TC ≥1%
Pembrolizumab	KEYNOTE-001[10]; ≥2 L 1L	19	30–45	8–19	TC ≥50%
	KEYNOTE-010[11]; ≥2 L	18	29–30	NG	TC ≥50%
Pembrolizumab + Chemotherapy	KEYNOTE-021[12]; 1L	55	54; 80	57; 26	TC ≥1%; TC ≥50%
Head and Neck Squamous Cell Carcinoma					
Durvalumab	Study 1108[13]; ≥2 L	7/62	-No difference in OS by PD-L1 status		TC ≥25%

Nivolumab	CheckMate-141[14,15]; ≥2 L	7.5 mo (OS)	8.7 (OS); 18 (ORR)	NG (HR 0.56)	TC ≥1%
Pembrolizumab	KEYNOTE-012[16]; ≥2 L	18	-PD-L1 associated with best ORR (p = 0.010)		TC or IC ≥1%
	Chow et al.[17]; ≥2 L	20	50	NG	TC ≥1% for study entry
Urothelial Carcinoma					
Atezolizumab	iMvigor-210[18]; 2L	15	18–26	8–11	TC ≥1%; ≥5%
Avelumab	JAVELIN[19]; 2L	18	50	4	TC ≥5%
Durvalumab	Study 1108;[20] 1L, 2L, ≥3L	17.8	27.6	5.1	TC or IC ≥ 25%
Pembrolizumab	KEYNOTE-012[21]; ≥3 L	25	38	NG	TC ≥1%
	KEYNOTE-045[22]; 2L	21.1	21.6	NG	TPS* ≥10%
	KEYNOTE-052[23]; 1L	23	21–28	21	IC ≥1% and <5%
Nivolumab	CheckMate-032[24]; 2L	24	24	26	TC ≥1%
	CheckMate-275[25]; 2L	20	24; 28	16; 16	TC ≥1%; ≥5%

HR, hazard ratio; NG, not given; ORR, overall response rate; OS, overall survival; PD-L1, programmed death ligand-1; TPS, tumour proportion score

*Percentage of PD-L1–expressing tumor and infiltrating immune cells relative to the total number of tumor cells

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