

Supplemental Table 1 Characteristics of eligible studies

Name of trial	Histology	Experiment				Control				HR for OS	HR for PFS
		Drug	number	ORR	Grade 3-4 AES	Drug	number	ORR	Grade 3-4 AES		
Planchard D 2020	ARCTIC (NCT023 52948)	NSCLC	durvalumab 20 mg/kg + tremelimumab 1 mg/kg	174	26	42.8%	gemcitabine/vinorelbine/erlotinib	118	8	51.8%	0.8(0.61,1.05) 0.77(0.59, 1.01)
Hellmann MD 2018	Checkmat e227(NC T0247782 6)	NSCLC	nivolumab 3 mg/kg q2w + ipilimumab 1 mg/kg	139	63	31.2%	platinum-based chemotherapy	160	43	36.1%	/ 0.58(0.41, 0.81)
Rizvi NA 2020	MYSTIC(NCT0245 3282)	NSCLC	durvalumab 20 mg/kg + tremelimumab 1 mg/kg	163	56	22.9%	platinum-based doublet chemotherapy	162	61	33.8%	0.85(0.61, 1.17) 1.05(0.72, 1.53)
Reck M 2020	CheckMat e 9LA	NSCLC	nivolumab 360 mg + ipilimumab 1 mg/kg + chemotherapy	361	137	/	platinum-based doublet chemotherapy	358	89	/	0.66(0.55, 0.80) 0.68(0.57, 0.82)
Antoni a SJ (1) 2016	Checkmat e032 (NCT01 928394)	SCLC	nivolumab 1 mg/kg + ipilimumab 3 mg/kg	61	14	30%	nivolumab 3 mg/kg	49	5	13%	/ /
Antoni a SJ (2) 2016	Checkmat e032(NC T0192839 4)	SCLC	nivolumab 3 mg/kg + ipilimumab 1 mg/kg	54	10	19%	nivolumab 3 mg/kg	49	5	13%	/ /

Abbreviations: ORR, Overall response rate; AES, adverse events; HR, hazard ratios; OS, Overall survival; PFS, Progression-free survival.