

Table S1

Medical treatment in metastatic NSCLC (UICC IV) targeting the PD1/PD-L1-pathway, approvals according to European Medicines Agency (EMA) and United States Food and Drug Administration (FDA).

Medical Treatment (target)	EMA approval	FDA approval
Pembrolizumab (PD-1)	as a single agent for the 1 st -line treatment in metastatic NSCLC expressing PD-L1 [Tumor Proportion Score (TPS) \geq 50%] with no EGFR or ALK genomic tumor aberrations	as a single agent for the 1 st -line treatment in NSCLC expressing PD-L1 [Tumor Proportion Score (TPS) \geq 1%] as determined by an FDA-approved test, with no EGFR or ALK genomic tumor aberrations, and is: stage III where patients are not candidates for surgical resection or definitive chemoradiation, or metastatic.
	in combination with Pemetrexed and platinum chemotherapy, as 1 st -line treatment in metastatic nonsquamous NSCLC, with no EGFR or ALK genomic tumor aberrations.	
	in combination with carboplatin and either paclitaxel or paclitaxel protein-bound, as 1 st -line treatment in metastatic squamous NSCLC.	
	as a single agent for treatment in metastatic NSCLC expressing PD-L1 (TPS \geq 1%) after at least one prior chemotherapy regimen. Patients with EGFR or ALK genomic tumor aberrations should have received targeted therapy prior to receiving Pembrolizumab.	as a single agent for treatment in metastatic NSCLC expressing PD-L1 (TPS \geq 1%) as determined by an FDA-approved test, with disease progression on or after platinum-containing chemotherapy. Patients with EGFR or ALK genomic tumor aberrations should have disease progression on FDA-approved therapy for these aberrations prior to receiving Pembrolizumab.
Nivolumab (PD-1)	-	In combination with Ipilimumab and two cycles of platinum-doublet chemotherapy for 1 st -line treatment in metastatic or recurrent NSCLC with no EGFR or ALK genomic tumor aberrations.
	-	In combination with Ipilimumab for 1 st -line treatment in metastatic NSCLC expressing PD-L1 (TPS \geq 1%) as determined by an FDA-approved test, with no EGFR or ALK genomic tumor aberrations.
	As single agent for treatment of locally advanced or metastatic NSCLC after prior chemotherapy	As a single agent for treatment in metastatic NSCLC with disease progression on or after platinum-containing chemotherapy.

		Patients with EGFR or ALK genomic tumor aberrations should have disease progression on FDA-approved therapy for these aberrations prior to receiving Nivolumab.
Atezolizumab (PD-L1)	-	as a single agent for 1 st -line treatment in metastatic NSCLC expressing PD-L1 (PD-L1 ≥ 50% of tumor cells [TC ≥ 50%] or PD-L1 stained tumor-infiltrating immune cells [IC] covering ≥ 10% of the tumor area [IC ≥ 10%]), as determined by an FDA-approved test, with no EGFR or ALK genomic tumor aberrations.
		in combination with bevacizumab, paclitaxel and carboplatin for the 1 st -line treatment in metastatic non-squamous NSCLC with no EGFR or ALK genomic tumor aberrations.
		in combination with paclitaxel protein-bound and carboplatin for 1st-line treatment in metastatic non-squamous NSCLC with no EGFR or ALK genomic tumor aberrations.
		as a single agent for treatment in locally advanced or metastatic NSCLC after prior chemotherapy. Patients with EGFR or ALK genomic tumor aberrations should have received targeted therapy prior to receiving atezolizumab.
		as a single agent for treatment in metastatic NSCLC with disease progression on or after platinum-containing chemotherapy. Patients with EGFR or ALK genomic tumor aberrations should have disease progression on FDA-approved therapy for these aberrations prior to receiving atezolizumab.

Legend			
ALK	Anaplastic lymphoma kinase	NSCLC	Non-small cell lung cancer
EGFR	Epidermal growth factor receptor	PD-1	Programmed cell death protein 1
EMA	European Medicines Agency	PD-L1	Programmed cell death 1 ligand 1
FDA	United States Food and Drug Administration	TPS	Tumor Proportion Score
IC	Immune cells	TC	Tumor cells
		UICC	Union for international cancer control