

Supplementary Material

Clinical Drug Investigation

SPENDING, UTILIZATION, AND PRICE TRENDS FOR IMMUNE CHECKPOINT INHIBITORS IN U.S. MEDICAID PROGRAMS: AN EMPIRICAL ANALYSIS FROM 2011 TO 2021

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Running Heading: Spending and Utilization Trends for ICIs in Medicaid

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Table S1. Approval dates for ICI selected indications [1].

Approval Year	Drug Name	Status	Indications
2011 ^a	Ipilimumab	Approval	Advanced melanoma
2014 ^b	Pembrolizumab	Approval	Advanced melanoma
2014 ^c	Nivolumab	Approval	Advanced melanoma
2015	Nivolumab + Ipilimumab	Approval	BRAF V600 Wild-type melanoma
2015	Pembrolizumab	Approval	Advanced non-small cell lung cancer
2015	Ipilimumab	Approval	Reduce risk of melanoma returning after surgery
2015	Pembrolizumab	Approval	Advanced melanoma
2016	Nivolumab + Ipilimumab	Approval	Unresectable or metastatic melanoma across BRAF status
2016 ^d	Atezolizumab	Approval	Urothelial carcinoma
2016	Pembrolizumab	Approval	Recurrent or metastatic head and neck
2016	Atezolizumab	Approval	Metastatic non-small cell lung cancer
2016	Pembrolizumab	Approval	Metastatic non-small cell lung cancer
2017	Ipilimumab	Approval	Unresectable or metastatic melanoma
2017 ^e	Avelumab	Approval	Metastatic Merkel cell carcinoma
2018 ^f	Cemiplimab	Approval	Advanced cutaneous squamous cell carcinoma
2020	Nivolumab	Withdrawal	Advanced or metastatic small cell lung cancer (SCLC) ^g
2021	Pembrolizumab	Withdrawal	Metastatic small cell lung cancer ^g
2021	Pembrolizumab	Withdrawal	Recurrent locally advanced or metastatic gastric or gastroesophageal adenocarcinoma whose tumors express PD-L1 ^g
2021	Nivolumab	Withdrawal	Hepatocellular carcinoma previously treated with sorafenib ^g

^a Ipilimumab initial approval, ^b Pembrolizumab initial approval, ^c Nivolumab initial approval, ^d Atezolizumab initial approval, ^e Avelumab initial approval, ^f Cemiplimab initial approval, ^g Withdrawal from U.S. market

References

1. Drugs@FDA: FDA-Approved Drugs: U.S. Food & Drug Administration; [Available from: <https://www.accessdata.fda.gov/scripts/cder/daf/>].