

Summary of Investigation Results

Anti-PD-1 antibody drugs, anti-PD-L1 antibody drugs, and anti-CTLA-4 antibody drugs ^{*1}

Non-proprietary name	Non-proprietary name	Brand name (marketing authorization holder)
Brand name	a. Nivolumab (genetical recombination) b. Cemiplimab (genetical recombination) c. Tislelizumab (genetical recombination) d. Avelumab (genetical recombination) e. Atezolizumab (genetical recombination) f. Durvalumab (genetical recombination) g. Retifanlimab (genetical recombination) h. Ipilimumab (genetical recombination) i. Tremelimumab (genetical recombination)	a. Opdivo I.V. Infusion 20 mg, 100 mg, 120 mg, 240 mg (Ono Pharmaceutical Co., Ltd.) b. Libtayo I.V. Infusion 350 mg (Regeneron Japan KK) c. Tevimbra I.V. Infusion 100 mg (BeOne Medicines Japan) d. Bavencio intravenous infusion 200 mg (Merck Biopharma Co., Ltd) e. Tecentriq for Intravenous Infusion 840 mg, 1200 mg (Chugai Pharmaceutical Co., Ltd.) f. Imfinzi Injection 120 mg, 500 mg (AstraZeneca K.K.) g. Zynyz for Intravenous Infusion 500 mg (Incyte Biosciences Japan G.K.) h. Yervoy Injection 20 mg, 50 mg (Bristol-Myers Squibb K.K.) i. Imjudo Injection 25mg, 300mg (AstraZeneca K.K.)
Japanese market launch	See Attachment.	
Indications	See Attachment.	
Summary of revisions	“Vasculitis” should be added to the 11.1 Clinically Significant Adverse Reactions section in the 11. ADVERSE REACTIONS.	
Investigation results and background of the revision	Cases involving vasculitis were evaluated. Cases in which a causal relationship between anti-PD-1 antibody drugs, anti-PD-L1 antibody drugs, and anti-CTLA-4 antibody drugs and vasculitis was reasonably possible have been reported. As a result of consultation with expert advisors regarding the causality assessment of the cases and the necessity of revision of PRECAUTIONS, the MHLW/PMDA concluded that revision of PRECAUTIONS was necessary.	

Reference: Number of cases^{*2} involving vasculitis^{*3} reported in Japan	a. A total of 22 cases have been reported to date (including 6 cases in which a causal relationship between the drug and the event was reasonably possible). No deaths have been reported to date. b. A total of 0 cases have been reported to date. c. A total of 0 cases have been reported to date. d. A total of 1 case has been reported to date (including 1 case in which a causal relationship between the drug and the event was reasonably possible). No deaths have been reported to date. e. A total of 11 cases have been reported to date (including 6 cases in which a causal relationship between the drug and the event was reasonably possible). No deaths have been reported to date. f. A total of 7 cases have been reported to date (including 3 cases in which a causal relationship between the drug and the event was reasonably possible). No deaths have been reported to date. g. A total of 0 cases have been reported to date. h. A total of 10 cases have been reported to date (including 2 cases in which a causal relationship between the drug and the event was reasonably possible). No deaths have been reported to date. i. A total of 4 cases have been reported to date (including 1 case in which a causal relationship between the drug and the event was reasonably possible). No deaths have been reported to date.
--	---

*1: Anti-PD-1 antibody drugs, anti-PD-L1 antibody drugs, and anti-CTLA-4 antibody drugs, except for pembrolizumab (genetical recombination)

*2: Cases collected in PMDA's safety database for drugs.

*3: Among severe cases that fell under MedDRA ver. 28.1 SMQ (narrow) Vasculitis (excluding PT "Polymyalgia rheumatica"), cases for which results of tests such as biopsy and imaging procedure are mentioned were retrieved.

The expert advisors present at the Expert Discussion regarding the current investigation were nominated based on their conflict of interest declarations concerning the relevant products, pursuant to the "Rules for Convening Expert Discussions, etc.", by the Pharmaceuticals and Medical Devices Agency" (PMDA Administrative Rule No. 20-8, dated December 25, 2008).

Attachment

Brand name (marketing authorization holder)	Japanese market launch	Indications
a. Opdivo I.V. Infusion 20 mg, 100 mg Opdivo I.V. Infusion 120 mg Opdivo I.V. Infusion 240 mg (Ono Pharmaceutical Co., Ltd.)	September 2014 November 2020 November 2018	☐ Malignant melanoma ☐ Unresectable, advanced or recurrent non-small cell lung cancer ☐ Neoadjuvant therapy for non-small cell lung cancer ☐ Radically unresectable or metastatic renal cell carcinoma ☐ Relapsed or refractory classical Hodgkin lymphoma ☐ Recurrent or metastatic head and neck cancer ☐ Unresectable, advanced or recurrent gastric cancer ☐ Unresectable, advanced or recurrent malignant pleural mesothelioma ☐ Malignant mesothelioma (excluding malignant pleural mesothelioma) ☐ Unresectable, advanced or recurrent microsatellite instability-high (MSI-High) colorectal cancer ☐ Radically unresectable, advanced or recurrent oesophageal carcinoma ☐ Postoperative adjuvant therapy for oesophageal carcinoma ☐ Carcinoma of unknown primary ☐ Postoperative adjuvant therapy for urothelial carcinoma ☐ Radically unresectable urothelial carcinoma ☐ Radically unresectable, advanced or recurrent epithelial skin malignancies ☐ Unresectable hepatocellular carcinoma
b. Libtayo I.V. Infusion 350 mg (Regeneron Japan KK)	March 2023	☐ Advanced or recurrent cervical cancer that has progressed after cancer chemotherapy ☐ Unresectable, advanced or recurrent non-small cell lung cancer
c. Tevimbra I.V. Infusion 100 mg (BeOne Medicines Japan)	July 2025	☐ Radically unresectable, advanced or recurrent oesophageal carcinoma ☐ Unresectable, advanced or recurrent gastric cancer
d. Bavencio intravenous infusion 200 mg (Merck Biopharma Co., Ltd)	November 2017	☐ Radically unresectable Merkel cell carcinoma ☐ Radically unresectable or metastatic renal cell carcinoma ☐ Maintenance treatment of radically unresectable urothelial carcinoma following chemotherapy
e. Tecentriq for Intravenous Infusion 840 mg Tecentriq for Intravenous Infusion 1200 mg (Chugai Pharmaceutical Co., Ltd.)	November 2019 April 2018	< Common to both preparations > ☐ Unresectable, advanced or recurrent non-small cell lung cancer

This English version is intended to be a reference material for the convenience of users. In the event of inconsistency between the Japanese original and this English translation, the former shall prevail.

		○ Postoperative adjuvant treatment for PD-L1 positive non-small cell lung cancer ○ Extensive stage small cell lung cancer ○ Unresectable alveolar soft part sarcoma ○ Recurrent or refractory extranodal NK/T-cell lymphoma/nasal type < Tecentriq for Intravenous Infusion 1200 mg > ○ Unresectable hepatocellular carcinoma ○ Unresectable thymic carcinoma < Tecentriq for Intravenous Infusion 840 mg > ○ PD-L1 positive, hormone receptor negative and HER2 negative inoperable or recurrent breast cancer
f. Imfinzi Injection 120 mg, 500 mg (AstraZeneca K.K.)	August 2018	○ Maintenance treatment of locally-advanced, unresectable non-small cell lung cancer following definitive chemoradiotherapy ○ Unresectable, advanced or recurrent non-small cell lung cancer ○ Preoperative and postoperative adjuvant treatment for non-small cell lung cancer ○ Extensive stage small cell lung cancer ○ Maintenance treatment of limited-stage small cell lung cancer following definitive chemoradiation therapy ○ Unresectable hepatocellular carcinoma ○ Unresectable biliary tract cancer ○ Advanced or recurrent endometrial cancer ○ Preoperative and postoperative adjuvant treatment for bladder cancer ○ Preoperative and postoperative adjuvant treatment for gastric cancer
g. Zynyz for Intravenous Infusion 500 mg (Incyte Biosciences Japan G.K.)	March 2026	Unresectable advanced or recurrent squamous cell carcinoma of the anal canal
h. Yervoy Injection 20 mg Yervoy Injection 50 mg (Bristol-Myers Squibb K.K.)	November 2021 August 2015	○ Radically unresectable malignant melanoma ○ Radically unresectable or metastatic renal cell carcinoma ○ Unresectable, advanced or recurrent microsatellite instability-high (MSI-High) colorectal cancer ○ Unresectable, advanced or recurrent non-small cell lung cancer ○ Unresectable, advanced or recurrent malignant pleural mesothelioma ○ Radically unresectable, advanced or recurrent oesophageal carcinoma

This English version is intended to be a reference material for the convenience of users. In the event of inconsistency between the Japanese original and this English translation, the former shall prevail.

		○Unresectable hepatocellular carcinoma
i. Imjudo Injection 25 mg, 300 mg (AstraZeneca K.K.)	March 2023	< Imjudo Injection 25 mg > ○Unresectable, advanced or recurrent non-small cell lung cancer ○Unresectable hepatocellular carcinoma < Imjudo Injection 300 mg > ○Unresectable hepatocellular carcinoma