

## UTILIZATION MANAGEMENT MEDICAL POLICY

POLICY: Oncology (Injectable – Programmed Death Receptor-1) – Keytruda Utilization

Management Medical Policy

• Keytruda® (pembrolizumab intravenous infusion – Merck)

**REVIEW DATE:** 04/02/2025; selected revision 05/21/2025

#### **OVERVIEW**

Keytruda, a human programmed death receptor-1 (PD-1) blocking antibody, is indicated for the treatment of the following indications:<sup>1</sup>

- **Biliary tract cancer**, in combination with gemcitabine and cisplatin for the treatment of locally advanced unresectable or metastatic disease.
- Breast cancer, triple-negative, in the following situations:
  - o In combination with chemotherapy for the treatment of locally recurrent unresectable or metastatic disease in patients whose tumors express programmed death-ligand 1 (PD-L1) [combined positive score {CPS} ≥ 10] as determined by an FDA-approved test.
  - o For the treatment of high-risk, early-stage disease in combination with chemotherapy as neoadjuvant treatment, and then continued as a single agent as adjuvant treatment after surgery.
- Cervical cancer, in the following situations:
  - o In combination with chemotherapy, with or without bevacizumab, for persistent, recurrent, or metastatic disease in patients whose tumor expresses PD-L1 (CPS  $\geq$  1) as determined by an FDA-approved test.
  - As a single agent, for treatment of recurrent or metastatic disease with disease progression on or after chemotherapy in patients whose tumors express PD-L1 (CPS ≥ 1) as determined by an FDA-approved test.
  - o In combination with chemoradiotherapy for FIGO 2014 Stage III-IVA disease.
- Classical Hodgkin lymphoma, in the following situations:
  - o For treatment of relapsed or refractory disease in adults.
  - For the treatment of refractory disease, or disease that has relapsed after two or more prior lines of therapy in pediatric patients.
- Cutaneous squamous cell carcinoma, for treatment of recurrent or metastatic disease, or locally advanced disease that is not curable by surgery or radiation.
- Endometrial cancer, in the following situations:
  - o In combination with carboplatin and paclitaxel, followed by single agent therapy for adults with primary advanced or recurrent disease.
  - In combination with Lenvima® (lenvatinib capsules), for the treatment of advanced disease that is mismatch repair proficient (pMMR) as determined by an FDA-approved test or not microsatellite instability high (MSI-H), in patients who have disease progression following prior systemic therapy and are not candidates for curative surgery or radiation.
  - As a single agent, for the treatment of advanced disease that is MSI-H or mismatch repair deficient (dMMR) as determined by an FDA-approved test, in patients who have disease progression following prior systemic therapy in any setting and are not candidates for curative surgery or radiation.
- **Esophageal cancer**, treatment of locally advanced or metastatic esophageal or gastroesophageal junction (GEJ) carcinoma (tumors with epicenter 1 to 5 centimeters above the GEJ) that is not amenable to surgical resection or definitive chemoradiation in the following situations:
  - o In combination with platinum- and fluoropyrimidine-based chemotherapy.

- O As a single agent after one or more prior lines of systemic therapy for tumors of squamous cell histology that express PD-L1 (CPS  $\geq$  10) as determined by an FDA-approved test.
- **Gastric cancer**, in the following situations:
  - o For the first-line treatment of locally advanced unresectable or metastatic human epidermal growth factor receptor 2 (HER2)-positive gastric or GEJ adenocarcinoma whose tumors express PD-L1 (CPS ≥ 1), in combination with trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy in adults.
  - In combination with fluoropyrimidine- and platinum-containing chemotherapy for the first-line treatment of adults with locally advanced unresectable or metastatic HER2-negative gastric or GEJ adenocarcinoma.
- Head and neck squamous cell carcinoma, in the following situations:
  - O As a single agent for the treatment of recurrent or metastatic disease with disease progression on or after platinum-containing chemotherapy.
  - o In combination with platinum and fluorouracil for the first-line treatment of metastatic or unresectable, recurrent disease.
  - O As a single agent, for the first line treatment of metastatic or unresectable, recurrent disease in patients whose tumors express PD-L1 (CPS  $\geq$  1) as determined by an FDA-approved test.
- **Hepatocellular carcinoma**, for treatment of hepatocellular carcinoma secondary to hepatitis B who have received prior systemic therapy other than a PD-1/PD-L1 containing regimen.
- **Melanoma**, in the following situations:
  - o For the treatment of unresectable or metastatic disease.
  - o As adjuvant treatment of Stage IIB, IIC, or III melanoma following complete resection in patients ≥ 12 years of age.
- Merkel cell carcinoma, for treatment of recurrent, locally advanced, or metastatic disease in adult and pediatric patients.
- Microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) cancer, for treatment of unresectable or metastatic MSI-H or dMMR solid tumors, as determined by an FDA-approved test, in adult and pediatric patients that have progressed following prior treatment and who have no satisfactory alternative treatment options.
- Microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) colorectal cancer, for the treatment of unresectable or metastatic disease, as determined by an FDA-approved test
- Non-small cell lung cancer (NSCLC), in the following situations:
  - As a single agent for the first-line treatment of tumors that express PD-L1 (tumor proportion score [TPS]  $\geq$  1%) as determined by an FDA-approved test, with no epidermal growth factor receptor (*EGFR*) or anaplastic lymphoma kinase (*ALK*) genomic tumor aberrations, and is stage III where patients are not candidates for surgical resection or definitive chemoradiation, or for metastatic disease.
  - O As a single agent for the treatment of metastatic disease in patients whose tumors express PD-L1 (TPS  $\geq$  1%) as determined by an FDA-approved test and 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 Keytruda.
  - o In combination with pemetrexed and platinum-based chemotherapy, for the first-line treatment of metastatic nonsquamous NSCLC in patients with no *EGFR* or *ALK* genomic tumor aberrations.
  - In combination with carboplatin and either paclitaxel or paclitaxel protein-bound, for first-line treatment in metastatic squamous NSCLC.

- o In combination with platinum-containing chemotherapy, for the neoadjuvant treatment of resectable (tumors ≥ 4 cm or node positive) NSCLC and then continued as a single agent as adjuvant treatment after surgery.
- As a single agent, as adjuvant treatment following resection and platinum-based chemotherapy for stage IB, II, or IIIA NSCLC in adults. **Pleural mesothelioma, malignant**, in combination with pemetrexed and platinum chemotherapy for the first-line treatment of adults with unresectable advanced or metastatic disease.
- **Primary mediastinal large B-cell lymphoma** (PMBCL), for treatment of refractory disease, or relapsed disease after two or more prior lines of therapy, in adult and pediatric patients. *Limitation of Use:* Keytruda is not recommended for treatment of patients with PMBCL who require urgent cytoreductive therapy.
- Renal cell carcinoma, in the following situations:
  - o In combination with Inlyta® (axitinib tablets) or Lenvima, for the first-line treatment of advanced disease in adults.
  - For adjuvant treatment of disease that is intermediate-high or high risk of recurrence following nephrectomy, or following nephrectomy and resection of metastatic lesions.
- Tumor mutational burden-high (TMB-H) cancer, for treatment of unresectable or metastatic TMB-H (≥ 10 mutations/megabase) disease, as determined by an FDA-approved test, in adult and pediatric patients that have progressed following prior treatment and who have no satisfactory alternative treatment options.\*
  - Limitation of Use: The safety and effectiveness of Keytruda in pediatric patients with TMB-H central nervous system cancers have not been established.
- **Urothelial carcinoma**, in the following situations:
  - o Treatment of locally advanced or metastatic disease in patients who are not eligible for platinum-containing chemotherapy as a single agent.
  - Treatment of locally advanced or metastatic urothelial carcinoma in patients who have disease progression during or following platinum-containing chemotherapy or within 12 months of neoadjuvant or adjuvant treatment with platinum-containing chemotherapy as a single agent.
  - o Treatment of Bacillus Calmette-Guerin (BCG)-unresponsive, high-risk, non-muscle invasive bladder cancer with carcinoma in situ with or without papillary tumors in patients who are ineligible for or have elected not to undergo cystectomy as a single agent.
  - o In combination with Padcev® (enfortumab intravenous infusion), for the treatment of locally advanced or metastatic urothelial carcinoma in adults.
- \* This indication is approved under accelerated approval based on tumor response rate and durability of response. Continued approval for this indication may be contingent upon verification and description of clinical benefit in the confirmatory trials.

### **Dosing**

The recommended dose of Keytruda is 200 mg (for pediatric patients, 2 mg/kg up to 200 mg) administered as an intravenous infusion once every 3 weeks or 400 mg given once every 6 weeks.<sup>1</sup> It is given until disease progression, unacceptable toxicity, or for up to 1 year when used in the adjuvant/neoadjuvant setting; and until disease progression, unacceptable toxicity, or up to 24 months in patients with non-melanoma indications without disease progression. There are no recommended dose reductions in the prescribing information. Management of adverse events may require that Keytruda be withheld or permanently discontinued as determined by the prescriber.

### **POLICY STATEMENT**

Prior Authorization is recommended for medical benefit coverage of Keytruda. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indications. Extended approvals are allowed if the patient continues to meet the criteria and dosing. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for the duration noted below. Because of the specialized skills required for evaluation and diagnosis of patients treated with Keytruda as well as the monitoring required for adverse events and long-term efficacy, approval requires Keytruda to be prescribed by or in consultation with a physician who specializes in the condition being treated.

**Automation**: None.

### RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Keytruda is recommended in those who meet one of the following criteria:

### **FDA-Approved Indications**

**1. Biliary Tract Cancer.** Approve for the duration noted if the patient meets ALL of the following (A, B, C, D, and E):

<u>Note</u>: Biliary tract cancer includes gallbladder cancer, intrahepatic cholangiocarcinoma, and extrahepatic cholangiocarcinoma.

- A) Patient is  $\geq 18$  years of age; AND
- **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
- C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
- **D)** Patient meets ONE of the following (i or ii):
  - i. Approve for 1 year if the patient meets BOTH of the following (a and b):
    - a) Patient has unresectable, resected gross residual, or metastatic disease; AND
    - b) Medication is used in combination with cisplatin and gemcitabine; OR
  - ii. Approve for a total of 6 months if the patient meets ALL of the following (a, b, and c):
    - a) Patient has resectable locoregionally advanced gall bladder cancer; AND
    - b) Medication is used for neoadjuvant therapy; AND
    - c) Medication is used in combination with cisplatin and gemcitabine; AND
- E) The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- 2. Breast Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is not tumor mutational burden-high (≥ 10 mutations/megabase); AND

<u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.

**D)** Patient has triple-negative breast cancer; AND

<u>Note</u>: Triple negative breast cancer is estrogen receptor-negative, progesterone receptor-negative, human epidermal growth factor receptor 2 (HER2)-negative.

- E) Patient meets ONE of the following (i or ii):
  - i. Patient meets ALL of the following (a, b, and c):
    - a) Patient has recurrent unresectable (local or regional) or metastatic disease; AND
    - b) The medication is used in combination with chemotherapy; AND
    - c) Patient's tumor expression for programmed death-ligand 1 (PD-L1) as determined by an approved test has a combined positive score (CPS) ≥ 10; OR
  - ii. Medication is used for preoperative and/or adjuvant therapy; AND
- **F)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- 3. Cervical Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient meets ONE of the following (i or ii):
    - i. Patient meets BOTH of the following (a and b):
      - a) Patient has persistent, recurrent, or metastatic disease; AND
      - **b)** Patient's tumor expression for programmed death-ligand 1 (PD-L1), as determined by an approved test, has a combined positive score (CPS)  $\geq$  1; OR
    - ii. Patient has FIGO 2014 stage III to IVA disease or FIGO 2018 stage III to IVA disease; AND
  - **E)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **4.** Classic Hodgkin Lymphoma. Approve for 1 year if the patient meets BOTH of the following (A and B):
  - A) Patient meets ONE of the following (i or ii):
    - i. Patient meets BOTH of the following (a and b):
      - a) Patient is  $\geq 18$  years of age; AND
      - **b)** Patient meets ONE of the following ([1] or [2]):
        - (1) Patient is NOT a candidate for anthracycline therapy; OR Note: Examples of anthracyclines include doxorubicin and daunorubicin.
        - (2) Patient has tried at least one systemic regimen; OR

<u>Note</u>: Examples of systemic regimens are ABVD (doxorubicin, bleomycin, vinblastine, dacarbazine) + rituximab, CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone) + rituximab, CVbP (cyclophosphamide, vinblastine, prednisolone) + rituximab, Adcetris (brentuximab vedotin intravenous infusion) + AVD (doxorubicin, vinblastine, dacarbazine).

- ii. Patient meets BOTH of the following (a and b):
  - a) Patient is < 18 years of age; AND
  - b) Patient has relapsed or refractory disease; AND
- B) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion given not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion given not more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) given as an intravenous infusion given not more frequently than once every 3 weeks.
- **5.** Colon, Rectal, or Appendiceal Cancer. Approve for duration noted if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq$  18 years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is polymerase epsilon/delta (POLE/POLD1) mutation positive with ultra-hypermutated phenotype; AND

<u>Note</u>: Ultra-hypermutated phenotype is defined as tumor mutational burden > 50 mutations/megabase.

- **D)** Patient meets ONE of the following (i or ii):
  - i. Approve for 1 year of the patient meets ONE of the following (a or b):
    - a) Patient has locally unresectable or medically inoperable disease; OR
    - b) Patient has metastatic disease; OR
  - ii. Approve for 6 months if the medication is used for neoadjuvant therapy; AND
- E) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) given as an intravenous infusion given not more frequently than once every 3 weeks.
- **6.** Cutaneous Squamous Cell Carcinoma. Approve for 1 year if the patient meets ALL of the following (A, B, C, and D):
  - A) Patient is  $\geq 18$  years of age; AND
  - B) Patient has locally advanced, recurrent, or metastatic disease; AND
  - C) The disease is not curable by surgery or radiation; AND
  - **D)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR

- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- 7. **Endometrial Carcinoma.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient meets ONE of the following (i or ii):
    - i. Patient meets BOTH of the following (a and b):
      - a) Medication is used for primary or adjuvant therapy; AND
      - **b)** Patient meets ONE of the following [(1) or (2)]:
        - (1) Medication is used in combination with carboplatin and paclitaxel; OR
        - (2) Medication is used as a single agent for maintenance therapy; OR
    - ii. Patient meets BOTH of the following (a and b):
      - a) Patient has recurrent disease; AND
      - **b)** Patient meets ONE of the following  $[(1), (2), \underline{\text{or}}(3)]$ :
        - (1) Medication is used in combination with Lenvima (lenvatinib capsules); OR
        - (2) Medication is used in combination with carboplatin and paclitaxel; OR
        - (3) Medication is used as a single agent for maintenance therapy; AND
  - **E)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **8.** Esophageal and Esophagogastric Junction Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient has unresectable locally advanced, recurrent, or metastatic disease; or are not surgical candidates; AND
  - E) Patient meets ONE of the following (i or ii):
    - i. Patient meets ALL of the following (a, b, and c):
      - a) Patient's tumor expression for programmed death-ligand 1 (PD-L1) as determined by an approved test has a combined positive score (CPS) ≥ 1; AND
      - **b)** The medication is used for first-line therapy; AND
      - c) The medication is used in combination with chemotherapy; OR Note: Examples of chemotherapy include cisplatin plus fluorouracil or capecitabine; and oxaliplatin plus fluorouracil or capecitabine.

- ii. Patient meets ALL of the following (a, b, c, and d):
  - a) Patient has squamous cell carcinoma; AND
  - **b)** Patient's tumor expression for programmed death-ligand 1 (PD-L1) as determined by an approved test has a combined positive score (CPS) ≥ 10; AND
  - c) The medication is used for second-line and subsequent therapy; AND
  - d) The medication is used as monotherapy; AND
- F) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **9.** Gastric Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient has unresectable locally advanced, recurrent, or metastatic disease; or are not surgical candidates; AND
  - E) Patient meets BOTH of the following (i and ii):
    - i. Patient's tumor expression for programmed death-ligand 1 (PD-L1) as determined by an approved test has a combined positive score (CPS) ≥ 1; AND
    - Medication is used in combination with chemotherapy; AND
       Note: Examples of chemotherapy include cisplatin or oxaliplatin, and fluorouracil or capecitabine.
  - **F)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **10. Head and Neck Squamous Cell Carcinoma.** Approve for 1 year if the patients meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq$  18 years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient has recurrent, unresectable, or metastatic disease; AND
  - E) Patient meets ONE of the following (i or ii):
    - i. If the medication is used for <u>first-line</u> treatment, patient must meet ONE of the following (a <u>or</u> b):
      - a) Keytruda is used in combination with chemotherapy; OR

Note: Examples of chemotherapy are cisplatin, carboplatin, fluorouracil, gemcitabine.

- b) Keytruda is used as a single agent if the tumors are PD-L1-positive (combined positive score  $\geq 1$ ), as determined by an approved test.
- ii. Medication is used for subsequent therapy; AND
- F) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **11. Hepatocellular Carcinoma**. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient meets ONE of the following (i or ii):
    - i. Patient has liver-confined, unresectable disease and is deemed ineligible for transplant; OR
    - **ii.** Patient has extrahepatic/metastatic disease and are deemed ineligible for resection, transplant, or locoregional therapy; AND
  - **E)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **12. Melanoma.** Approve for the duration noted below if the patient meets BOTH of the following (A <u>and</u> B):

Note: This includes cutaneous melanoma, brain metastases due to melanoma, and uveal melanoma.

- A) Patient meets ONE of the following (i, ii, or iii):
  - i. Approve for 1 year if the patient meets BOTH of the following (a and b):
    - a) Patient is  $\geq 18$  years of age; AND
    - b) Patient has unresectable or metastatic melanoma; OR
  - ii. Approve for up to 1 year (total) if patient meets BOTH of the following (a and b):
    - a) Patient is  $\geq 12$  years of age; AND
    - **b)** Keytruda will be used as adjuvant treatment; OR
  - iii. Approve for 4 months if the patient meets BOTH of the following (a and b):
    - a) Patient is  $\geq 18$  years of age; AND
    - **b)** Keytruda will be used as neoadjuvant treatment; AND
- **B)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered no more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered no more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) as an intravenous infusion given no more frequently than once every 3 weeks.

# 13. Merkel Cell Carcinoma. Approve for 1 year if the patient meets BOTH of the following (A and B):

- A) Patient meets ONE of the following (i, ii, or iii):
  - i. Patient has primary or recurrent locally advanced disease, if according to the prescriber curative surgery and curative radiation therapy are not feasible; OR
  - ii. Patient has primary or recurrent regional disease, if according to the prescriber curative surgery and curative radiation therapy are not feasible; OR
  - iii. Patient has metastatic disease; AND
- B) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion given not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion given not more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) given as an intravenous infusion given not more frequently than once every 3 weeks.

## **14. Mesothelioma.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):

- A) Patient is  $\geq 18$  years of age; AND
- **B)** Patient has ONE of the following (i, ii, iii, or iv):
  - i. Pleural mesothelioma; OR
  - ii. Peritoneal mesothelioma; OR
  - iii. Pericardial mesothelioma; OR
  - iv. Tunica vaginalis testis mesothelioma; AND
- C) Medication is used as first-line therapy; AND
- D) Medication is used in combination with pemetrexed and either cisplatin or carboplatin; AND
- E) Medication is prescribed by or in consultation with an oncologist.

**Dosing:** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion given not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion given not more frequently than once every 6 weeks.

# **15.** Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors. Approve for 1 year if the patient meets BOTH of the following (A and B):

<u>Note</u>: Examples of solid tumors with MSI-H or dMMR are adrenal gland, biliary tract cancers, breast cancer, cervical cancer, chondrosarcoma, colon or rectal cancer, endometrial carcinoma, esophageal or esophagogastric cancers, Ewing sarcoma, gallbladder carcinoma, gastric cancer, head and neck squamous cell carcinoma, hepatocellular carcinoma, occult primary (cancer of unknown primary), osteosarcoma, ovarian/fallopian tube/primary peritoneal, pancreatic adenocarcinoma, penile cancer, neuroendocrine tumor, prostate cancer, small bowel adenocarcinoma, testicular cancer, vulvar cancer.

- A) One of the following conditions applies (i, ii, iii, iv, v, vi, vii, or viii):
  - i. Patient has advanced or metastatic ampullary cancer; OR
  - ii. Patient has unresectable or metastatic colon or rectal cancer; OR
  - iii. Patient has unresectable or metastatic gallbladder cancer (including intra- and extra-hepatic cholangiocarcinoma): OR
  - iv. Patient has unresectable or metastatic head and neck squamous cell carcinoma; OR
  - v. Patient has persistent or recurrent ovarian/fallopian tube/primary peritoneal carcinoma; OR
  - vi. Patient has locally advanced or metastatic pancreatic adenocarcinoma; OR

- vii. Patient has advanced or metastatic small bowel carcinoma; OR
- viii. Patient meets BOTH of the following (a and b):
  - a) Patient has tried at least one prior systemic therapy for an MSI-H or dMMR solid tumor; AND
  - b) Patient has unresectable or metastatic disease; AND
- B) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion given not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion given not more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) given as an intravenous infusion given not more frequently than once every 3 weeks.
- **16. Non-Small Cell Lung Cancer.** Approve for the duration noted if the patient meets ALL of the following (A, B, and C):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Patient meets ONE of the following (i, ii, iii, iv, v, vi, or vii):
    - i. Approve for 1 year if the patient meets ALL of the following (a, b, and c):
      - a) Patient has recurrent, advanced, or metastatic disease; AND
      - **b)** Keytruda is used as first-line or continuation maintenance therapy; AND Note: This is regardless of programmed death-ligand 1 (PD-L1) status.
      - c) The tumor is negative for actionable mutations; OR Note: Examples of actionable mutations include sensitizing epidermal growth factor receptor (EGFR) mutation, anaplastic lymphoma kinase (ALK) fusions, NTRK gene fusion-positive, ROS1, BRAF V600E, MET 14 skipping mutation, RET rearrangement.
    - ii. Approve for 1 year if the patient meets ALL of the following (a, b, c, and d):
      - a) Patient has recurrent, advanced, or metastatic disease; AND
      - **b)** Keytruda is used as first-line therapy; AND Note: This is regardless of the PD-L1 status.
      - c) Patient does NOT have EGFR exon 19 deletion or L858R mutation; ALK, RET, or ROS1 rearrangements; AND
      - d) The tumor is positive for one of the following mutations [(1), (2), or (3)]:
        - (1) EGFR exon 20 mutation; OR
        - (2) ERBB2 (HER2) mutation; OR
        - (3) NRG1 gene fusion; OR
    - iii. Approve for 1 year if the patient meets ALL of the following (a, b, c, and d):
      - a) Patient has recurrent, advanced, or metastatic disease; AND
      - b) Keytruda is used as first-line or subsequent therapy; AND

<u>Note</u>: This is regardless of the PD-L1 status.

- c) Patient does NOT have EGFR exon 19 deletion or L858R mutation; ALK, RET, or ROS1 rearrangements; AND
- **d)** The tumor is positive for one of the following mutations  $[(1), (2), \underline{\text{or}}(3)]$ :
  - (1) BRAF V600E mutation; OR
  - (2) NTRK1/2/3 gene fusion; OR
  - (3) MET exon 14 skipping mutation; OR
- iv. Approve for 1 year if the patient meets ALL of the following (a, b, c, d, and e):
  - a) Patient has recurrent, advanced, or metastatic disease; AND
  - **b)** Keytruda is used as subsequent therapy; AND

- c) Patient does NOT have EGFR exon 19 deletion or L858R mutation; ALK, RET, or ROS1 rearrangements; AND
- d) The tumor is EGFR S768I, L861Q, and/or G719X mutation positive; AND
- e) The patient has received targeted drug therapy for the specific mutation; OR

  <u>Note</u>: Examples of targeted drug therapy include Gilotrif (afatinib tablets), Tagrisso (osimertinib tablets), erlotinib, Iressa (gefitinib tablets), Vizimpro (dacomitinib tablets).
- v. Approve for 1 year if the patient meets ALL of the following (a, b, c, d, and e):
  - a) Patient has advanced, recurrent, or metastatic disease; AND
  - b) The medication is used as subsequent therapy; AND
  - c) The medication is used as a single agent; AND
  - d) The tumor is PD-L1 positive, with tumor proportion score (TPS)  $\geq$  1%, as determined by an approved test; AND
  - e) Patient has not progressed on prior therapy with a programmed death receptor-1 (PD-1)/PD-L1 inhibitor; AND
    - <u>Note</u>: This includes previous therapy with either one of Keytruda, Opdivo (nivolumab intravenous infusion), or Tecentriq (atezolizumab intravenous infusion).
- vi. Approve for 1 year (total) if the patient meets ONE of the following (a or b):
  - a) Patient meets ALL of the following [(1), (2), and (3)]:
    - (1) Patient has completely resected stage IB to III disease; AND
    - (2) Tumor is negative for *EGFR* exon 19 deletion, exon 21 *L858R* mutation, and *ALK* rearrangements; AND
    - (3) Patient has received adjuvant chemotherapy; OR
  - b) Patient has received neoadjuvant treatment with Keytruda; OR
- vii. Approve for 4 months if the patient meets ALL of the following (a, b, and c):
  - a) Patient has resectable disease; AND
    - Note: Resectable disease is defined as tumors  $\geq 4$  cm or node positive.
  - b) Keytruda is used as neoadjuvant therapy; AND
  - c) Keytruda is used in combination with platinum-doublet chemotherapy; AND <a href="Note">Note</a>: Examples of platinum-doublet chemotherapy include cisplatin plus pemetrexed and cisplatin plus gemcitabine.
- C) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks; OR
- C) In brain metastases, approve one of the following regimens (i or ii):
  - i. 10 mg/kg every 2 weeks; OR
  - ii. 2 mg/kg every 3 weeks.
- **17. Primary Mediastinal Large B-Cell Lymphoma.** Approve for 1 year if the patient meets BOTH of the following (A and B):
  - A) Patient has relapsed after, or is refractory to, at least two previous regimens; AND <a href="Note">Note</a>: Examples of previous regimens include autologous hematopoietic stem cell transplant (auto-HSCT), EPOCH-R (etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin, rituximab), RCHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone), RCEPP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone).
  - **B)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) given as an intravenous infusion given not more frequently than once every 3 weeks.
- **18. Renal Cell Carcinoma.** Approve for the duration noted below if the patient meets ALL of the following (A, B, <u>and</u> C):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Patient meets ONE of the following (i, ii, or iii):
    - i. Approve for 1 year if the patient meets ALL of the following (a, b, and c):
      - a) The tumor has clear cell histology; AND
      - b) Patient has relapsed or metastatic disease; AND
      - c) The medication is used in combination with Inlyta (axitinib tablets) or Lenvima (lenvatinib capsules); OR
    - ii. Approve for 1 year if the patient meets ALL of the following (a, b, and c):
      - a) The tumor has non-clear cell histology; AND
      - b) Patient has relapsed or metastatic disease; AND
      - c) The medication is used in combination with Lenvima (lenvatinib capsules) or as single-agent therapy; OR
    - iii. Approve for up to 1 year (total) if patient meets ALL of the following (a, b, c, and d):
      - a) Keytruda is used as adjuvant therapy; AND
      - **b)** The tumor has clear cell histology; AND
      - c) Patient has advanced disease; AND
      - d) The medication is used as single-agent therapy; AND
  - C) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **19. Tumor Mutational Burden-High (TMB-H) Cancer.** Approve for 1 year if the patient meets ALL of the following (A, B, C, and D):
  - **A)** Patient has unresectable or metastatic tumor mutational burden-high (≥ 10 mutations/megabase) solid tumor; AND
    - <u>Note</u>: Examples of solid tumors are adrenal cancer, ampullary adenocarcinoma, breast cancer, cervical cancer, cholangiocarcinoma (intrahepatic and extrahepatic), chondrosarcoma, chordoma, endometrial carcinoma, esophageal carcinoma, esophagogastric junction carcinoma, Ewing sarcoma, gallbladder cancer, gastric cancer, head and neck cancer, neuroendocrine cancer, osteosarcoma, ovarian/fallopian tube/primary peritoneal carcinoma, pancreatic adenocarcinoma, penile cancer, primary occult, prostate cancer, salivary gland tumors, testicular cancer, thyroid cancer, uterine sarcoma, vulvar cancer.
  - **B)** Patient has progressed on prior therapy; AND
  - C) Patient has no satisfactory alternative treatment options; AND
  - **D)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.

- **20.** Urothelial Carcinoma. Approve for 1 year if the patient meets ALL of the following (A, B, and C):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Patient meets ONE of the following conditions (i, ii, iii, or iv):
    - i. Patient has locally advanced or metastatic disease; OR
    - **ii.** Patient has tried at least one platinum-based chemotherapy; OR Note: Cisplatin and carboplatin are platinum-based chemotherapies.
    - iii. According to the prescriber, patient is not eligible for platinum-based chemotherapy; OR <a href="Note">Note</a>: This is regardless of PD-L1 status. Cisplatin and carboplatin are platinum-based chemotherapies.
    - iv. Patient meets BOTH of the following (a and b):
      - a) Patient has high-risk, non-muscle invasive bladder cancer; AND
      - **b)** Patient is Bacillus Calmette-Guerin (BCG) unresponsive; AND
  - C) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.

### **Other Uses with Supportive Evidence**

- **21.** Adrenal Gland Tumor. Approve for 1 year if the patient meets ALL of the following (A, B, and C):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Patient has unresectable or metastatic adrenocortical carcinoma; AND
  - C) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks.

- 22. Anal Carcinoma. Approve for 1 year if the patient meets ALL of the following (A, B, and C):
  - A) Patient is  $\geq$  18 years of age; AND
  - **B)** Patient meets ONE of the following (i or ii):
    - i. Patient meets BOTH of the following (a and b):
      - a) Patient has locally recurrent, progressive disease; AND
      - b) Medication is administered before proceeding to abdominoperineal resection; OR
    - ii. Patient meets ALL of the following (a, b, and c):
      - a) Patient has metastatic disease; AND
      - **b)** Medication is used for subsequent therapy; AND
      - c) Patient has NOT received prior immunotherapy; AND

        <u>Note</u>: Examples of immunotherapy include Keytruda (pembrolizumab intravenous infusion), Opdivo (nivolumab intravenous infusion), Libtayo (cemiplimab intravenous
  - infusion), and Jemperli (dostarlimab intravenous infusion). **C**) The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks; OR

C) 2 mg/kg as an intravenous infusion administered not more frequently than once every 3 weeks.

- **23.** Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - B) Patient has histologic transformation to diffuse large B-cell lymphoma; AND
  - C) Patient meets ONE of the following (i, ii, or iii):
    - i. Patient has del(17p)/TP53 mutation; OR
    - ii. Patient is chemotherapy refractory; OR

<u>Note</u>: An example of chemotherapy includes CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone).

- iii. Patient is unable to receive chemoimmunotherapy; AND
  - <u>Note</u>: Examples of chemoimmunotherapy include RCHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone) and OFAR (oxaliplatin, fludarabine, cytarabine, rituximab).
- **D)** The medication is used as a single agent or in combination with Imbruvica (ibrutinib capsules, tablets, or oral suspension); AND
- **E**) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg administered by intravenous infusion no more frequently than once every 3 weeks.

- **24.** Extranodal NK/T-Cell Lymphoma, Nasal Type. Approve for 1 year if the patient meets ALL of the following (A, B, and C):
  - A) Patient is  $\geq 18$  years of age; AND
  - B) Patient has received an asparaginase-based chemotherapy regimen; AND <a href="Note">Note</a>: Examples of asparaginase-based chemotherapy are dexamethasone, ifosfamide, pegaspargase, etoposide; and gemcitabine, pegaspargase, oxaliplatin.
  - C) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 100 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- B) 2 mg/kg as an intravenous infusion administered not more frequently than once every 3 weeks.
- **25. Gestational Trophoblastic Neoplasia.** Approve for 1 year if the patient meets ALL of the following (A, B, and C):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Patient meets ONE of the following (i or ii):
    - i. Patient has tried at least one previous chemotherapy regimen for recurrent or progressive disease; OR
      - <u>Note</u>: Examples of chemotherapy regimens contain etoposide, cisplatin/carboplatin, paclitaxel, bleomycin, ifosfamide, methotrexate.
    - ii. Patient has high-risk disease; AND
  - C) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR

**B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.

- **26. Glioma.** Approve for duration noted if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is < 18 years of age; AND
  - **B)** Patient has diffuse high-grade disease; AND
  - C) Tumor is hypermutant; AND
  - **D)** Patient meets ONE of the following (i or ii):
    - i. Approve for 1 year (total) if the patient meets BOTH of the following (a and b):
      - a) Medication is used for adjuvant treatment; AND
      - b) Patient does NOT have diffuse midline glioma, H3 K27-altered, or pontine location; OR
    - ii. Approve for 1 year of the patient has meets BOTH of the following (a and b):
      - a) Patient has recurrent or progressive disease; AND
      - **b)** Patient does  $\underline{NOT}$  have either of the following [(1)  $\underline{or}$  (2)]:
        - (1) Oligodendroglioma isocitrate dehydrogenase (IDH)-mutant and 1p/19q co-deleted; OR
        - (2) Astrocytoma, IDH-mutant; AND
  - E) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks; OR
- C) 2 mg/kg as an intravenous infusion administered not more frequently than once every 3 weeks.
- 27. Kaposi Sarcoma. Approve for 6 months if the patient meets ALL of the following (A, B, C, and D):
  - A) Patient is  $\geq 18$  years of age; AND
  - B) Patient has relapsed or refractory advanced cutaneous, oral, visceral, or nodal disease; AND
  - C) Medication is used as a single agent; AND
  - **D)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks.

- **28.** Mycosis Fungoides/Sezary Syndrome. Approve for 1 year if the patient meets BOTH of the following (A and B):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 2 mg/kg as an intravenous infusion administered not more frequently than once every 3 weeks.

- **29.** Ovarian/Fallopian Tube/Peritoneal Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq$  18 years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.

- C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
- D) Patient has platinum-resistant, persistent or recurrent disease; AND
- E) Medication is used in combination with cyclophosphamide and bevacizumab; AND
- F) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks

- **30. Penile Cancer.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient has recurrent or metastatic disease; AND
  - E) Patient meets ONE of the following (i or ii):
    - i. Medication is used in combination with fluorouracil and either cisplatin or carboplatin; OR
    - ii. Medication is used as a single agent for maintenance therapy; AND
  - **F)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks

- **31. Primary Cutaneous Anaplastic Large Cell Lymphoma.** Approve for 1 year if the patient meets ALL of the following (A, B, C, and D):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Patient has relapsed or refractory disease; AND
  - C) Patient meets ONE of the following (i or ii):
    - i. Patient has disease with multifocal lesions; OR
    - ii. Patient has disease with regional node; AND
  - **D)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks; OR
- C) 2 mg/kg as an intravenous infusion administered not more frequently than once every 3 weeks.
- **32. Small Bowel Adenocarcinoma.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is not tumor mutational burden-high (≥ 10 mutations/megabase); AND

<u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.

**D)** Disease is polymerase epsilon/delta 1 (POLE/POLD1) mutation positive with ultra-hypermutated phenotype; AND

<u>Note</u>: Ultra-hypermutated phenotype is defined as tumor mutational burden > 50 mutations/megabase.

- E) Patient has advanced or metastatic disease; AND
- F) The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A, B, or C):

- A) 200 mg as an intravenous infusion given not more frequently than once every 3 weeks; OR
- B) 400 mg as an intravenous infusion given not more frequently than once every 6 weeks; OR
- C) 2 mg/kg (up to a maximum of 200 mg) given as an intravenous infusion given not more frequently than once every 3 weeks.
- **33. Small Cell Lung Cancer.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Medication is used as subsequent therapy; AND
  - C) Patient has not been treated with an immune checkpoint inhibitor; AND
  - **D)** There has been a chemotherapy-free interval of  $\leq 6$  months; AND
  - **E)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered no more frequently than once every 3 weeks; OR
- **B)** 10 mg/kg as an intravenous infusion administered no more frequently than once every 2 weeks.
- **34. Soft Tissue Sarcoma.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient has ONE of the following (i, ii, iii, iv, or v):
    - i. Alveolar soft part sarcoma; OR
    - ii. Cutaneous angiosarcoma; OR
    - iii. Extremity, body wall, or head and neck sarcoma; OR
    - iv. Retroperitoneal or intra-abdominal sarcoma; OR
    - v. Rhabdomyosarcoma; AND
  - **E)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.

- **35.** Thymic Carcinoma. Approve for 1 year if the patient meets BOTH of the following (A and B):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks.

- **36. Thyroid Carcinoma.** Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - D) Patient has metastatic anaplastic carcinoma; AND
  - E) Patient meets ONE of the following (i or ii):
    - i. Medication is used in combination with Lenvima (lenvatinib capsules); OR
    - ii. Medication is used as a single agent; AND
  - **F)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve ONE of the following dosing regimens (A or B):

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **38.** Vaginal Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, E, and F):
  - A) Patient is  $\geq 18$  years of age; AND
  - **B)** Disease is <u>not</u> microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND <u>Note</u>: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.
  - C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
  - **D)** Patient has recurrent or metastatic disease; AND
  - E) Patient's tumor expression for programmed death-ligand 1 (PD-L1), as determined by an approved test, has a combined positive score (CPS) ≥ 1; AND
  - **F)** The medication is prescribed by or in consultation with an oncologist.

- A) 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks; OR
- **B)** 400 mg as an intravenous infusion administered not more frequently than once every 6 weeks.
- **39.** Vulvar Cancer. Approve for 1 year if the patient meets ALL of the following (A, B, C, D, and E):
  - A) Patient is  $\geq 18$  years of age; AND
  - B) Disease is not microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR); AND

Note: If the tumor is MSI-H or dMMR, see Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors criteria.

- C) Disease is <u>not</u> tumor mutational burden-high (≥ 10 mutations/megabase); AND <u>Note</u>: If the tumor is mutational burden-high, see Tumor Mutational Burden-High (TMB-H) Cancer criteria.
- D) Patient has advanced, recurrent, or metastatic disease; AND
- **E)** The medication is prescribed by or in consultation with an oncologist.

**Dosing.** Approve 200 mg as an intravenous infusion administered not more frequently than once every 3 weeks.

#### CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Keytruda is not recommended in the following situations:

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

#### REFERENCES

- 1. Keytruda® intravenous infusion [prescribing information]. Whitehouse Station, NJ: Merck; March 2025.
- 2. The NCCN Hodgkin Lymphoma Clinical Practice Guidelines in Oncology (version 2.2025 January 30, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 3. The NCCN Pediatric Hodgkin Lymphoma Clinical Practice Guidelines in Oncology (version 1.2024 May 14, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 4. The NCCN Drugs & Biologics Compendium. © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 12, 2025. Search term: pembrolizumab.
- 5. The NCCN Head and Neck Cancers Clinical Practice Guidelines in Oncology (version 2.2025 January 17, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 6. The NCCN Melanoma: Cutaneous Clinical Practice Guidelines in Oncology (version 2.2025 January 28, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- The NCCN Colon Cancer Clinical Practice Guidelines in Oncology (version 1.2025 February 7, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 8. The NCCN Rectal Cancer Clinical Practice Guidelines in Oncology (version 1.2025 February 7, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 9. The NCCN Non-Small Cell Lung Cancer Clinical Practice Guidelines in Oncology (version 3.2025 January 14, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 10. The NCCN Bladder Cancer Clinical Practice Guidelines in Oncology (version 7.2024 February 28, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 11. The NCCN Merkel Cell Carcinoma Clinical Practice Guidelines in Oncology (version 1.2025 January 17, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 12. The NCCN Gastric Cancer Clinical Practice Guidelines in Oncology (version 1.2025 March 4, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 26, 2025.
- 13. The NCCN Esophageal and Esophagogastric Junction Cancers Clinical Practice Guidelines in Oncology (version 1.2025 February 28, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 26, 2025.
- 14. The NCCN Bone Cancer Clinical Practice Guidelines in Oncology (version 2.2025 February 28, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 26, 2025.
- 15. The NCCN Pancreatic Adenocarcinoma Clinical Practice Guidelines in Oncology (version 2.2025 February 3, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 16. The NCCN Uterine Neoplasms Clinical Practice Guidelines in Oncology (version 3.2025 March 7, 2025). © 2025 National Comprehensive Cancer Network. Available at: http://www.nccn.org. Accessed on March 27, 2025.
- 17. The NCCN Central Nervous System Cancers Clinical Practice Guidelines in Oncology (version 5.2024 March 18, 2025). © 2025 National Comprehensive Cancer Network. Available at: http://www.nccn.org. Accessed on March 27, 2025.
- 18. The NCCN B-Cell Lymphomas Clinical Practice Guidelines in Oncology (version 2.2025 February 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 26, 2025.

- 19. The NCCN Anal Carcinoma Clinical Practice Guidelines in Oncology (version 2.2025 January 17, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 20. The NCCN Uveal Melanoma Clinical Practice Guidelines in Oncology (version 1.2025 February 11, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 21. The NCCN Cervical Cancer Clinical Practice Guidelines in Oncology (version 3.2025 February 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 22. The NCCN Hepatocellular Carcinoma Clinical Practice Guidelines in Oncology (version 4.2024 January 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 23. The NCCN Vulvar Cancer Clinical Practice Guidelines in Oncology (version 1.2025 February 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 17, 2025.
- 24. The NCCN Neuroendocrine and Adrenal Cancer Clinical Practice Guidelines in Oncology (version 5.2025 March 7, 2025). © 2025 National Comprehensive Cancer Network, Inc. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 25. The NCCN Kidney Cancer Clinical Practice Guidelines in Oncology (version 3.2025 January 9, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 27, 2025.
- The NCCN Gestational Trophoblastic Neoplasia Cancer Clinical Practice Guidelines in Oncology (version 2.2025 January 31, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 21, 2025.
- 27. The NCCN Thymomas and Thymic Carcinomas Clinical Practice Guidelines in Oncology (version 1.2025 October 30, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 28. The NCCN Primary Cutaneous Lymphomas Clinical Practice Guidelines in Oncology (version 1.2025 November 11, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- The NCCN Squamous Cell Skin Cancer Clinical Practice Guidelines in Oncology (version 2.2025 February 7, 2025).
   2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 30. The NCCN T-Cell Lymphomas Clinical Practice Guidelines in Oncology (version 1.2025 November 11, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 21, 2025.
- 31. The NCCN Breast Cancer Clinical Practice Guidelines in Oncology (version 2.2025 March 5, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 27, 2025.
- 32. The NCCN Soft Tissue Sarcoma Clinical Practice Guidelines in Oncology (version 5.2024 -March 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 18, 2025.
- 33. The NCCN Penile Cancer Clinical Practice Guidelines in Oncology (version 2.2025 January 6, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 34. The NCCN Small Bowel Adenocarcinoma Clinical Practice Guidelines in Oncology (version 2.2025 January 17, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 18, 2025.
- 35. The NCCN Prostate Cancer Clinical Practice Guidelines in Oncology (version 1.2025 December 4, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 27, 2025.
- 36. The NCCN Ovarian Cancer Clinical Practice Guidelines in Oncology (version 1.2025 March 5, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 26, 2025.
- 37. The NCCN Occult Primary Clinical Practice Guidelines in Oncology (version 2.2025 September 11, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 24, 2025.
- 38. The NCCN Thyroid Carcinoma Clinical Practice Guidelines in Oncology (version 5.2024 January 15, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 39. The NCCN Ampullary Adenocarcinoma Clinical Practice Guidelines in Oncology (version 2.2025 January 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 24, 2025.
- 40. The NCCN Small Cell Lung Cancer Clinical Practice Guidelines in Oncology (version 4.2025 January 13, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 18, 2025.
- 41. The NCCN Testicular Cancer Clinical Practice Guidelines in Oncology (version 1.2025 January 17, 2025). © National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 24, 2025.
- The NCCN Pediatric Central Nervous System Cancers Clinical Practice Guidelines in Oncology (version 2.2025 January 17, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 43. The NCCN Biliary Tract Cancers Clinical Practice Guidelines in Oncology (version 6.2024 January 10, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 25, 2025.
- 44. The NCCN Kaposi Sarcoma Clinical Practice Guidelines in Oncology (version 2.2025 January 14, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 14, 2025.
- 45. The NCCN Pediatric Aggressive Mature B-Cell Lymphomas Clinical Practice Guidelines in Oncology (version 2.2024 September 3, 2024). © 2024 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 24, 2025.
- 46. The NCCN Vaginal Cancer Clinical Practice Guidelines in Oncology (version 5.2025 February 28, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 17, 2025.
- 47. The NCCN Mesothelioma: Pleural Clinical Practice Guidelines in Oncology (version 2.2025 January 14, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 24, 2025.

- 48. The NCCN Mesothelioma: Peritoneal Clinical Practice Guidelines in Oncology (version 2.2025 January 14, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 24, 2025.
- The NCCN Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma Clinical Practice Guidelines in Oncology (version 2.2025 – February 7, 2025). © 2025 National Comprehensive Cancer Network. Available at: <a href="http://www.nccn.org">http://www.nccn.org</a>. Accessed on March 26, 2025.
- 50. Giaccone G, Kim C. Durable response in patients with thymic carcinoma treated with pembrolizumab after prolonged follow-up. *J Thorac Oncol.* 2021;16:483-485.
- 51. Cho J, Kim HS, Ku BM, et al. Pembrolizumab for patients with refractory or relapsed thymic epithelial tumor: An open-label Phase II trial. *J Clin Oncol*. 2018;37:2162-2170.
- 52. Ott PA, Elez E, Hiret S, et al. Pembrolizumab in patients with extensive-stage small-cell lung cancer: Results from the Phase Ib KEYNOTE-028 study. *J Clin Oncol.* 2017;35:3823-3829.
- Chung HC, Piha-Paul SA, Lopez-Martin J, et al. Pembrolizumab after two or more lines of previous therapy in patients with recurrent or metastatic SCLC: Results from the KEYNOTE-028 and KEYNOTE-158 studies. *J Thorac Oncol.* 2020;15:618-627.
- 54. Habra MA, Stephen B, Campbell M, et al. Phase II clinical trial of pembrolizumab efficacy and safety in advanced adrenocortical carcinoma. *J Immunother Cancer*. 2019;7:253.
- 55. Shapira-Frommer R, Mileshkin L, Manzyuk L, et al. Efficacy and safety of pembrolizumab for patients with previously treated advanced vulvar squamous cell carcinoma: Results from the phase 2 KEYNOTE-158 study. *Gynecol Oncol.* 2022;166:211-218.
- 56. Kwong YL, Chan TSY, Tan D, et al. PD1 blockade with pembrolizumab is highly effective in relapsed or refractory NK/T-cell lymphoma failing L-asparaginase. *Blood*. 2017;129:2437-2442.
- 57. Li X, Cheng Y, Zhang M, et al. Activity of pembrolizumab in relapsed/refractory NK/T-cell lymphoma. *J Hematol Oncol*. 2018;11:15.
- 58. Hughes BGM, Munoz-Couselo E, Mortier L, et al. Pembrolizumab for locally advanced and recurrent/metastatic cutaneous squamous cell carcinoma (KEYNOTE-629 study): An open-label. nonrandomized, multicenter, phase II trial. *Ann Oncol.* 2021;32:1276-1285.
- 59. Zsiros E, Lynam S, Attwood KM, et al. Efficacy and safety of pembrolizumab in combination with bevacizumab and oral metronomic cyclophosphamide in the treatment of recurrent ovarian cancer. *JAMA Oncol.* 2021;7(1):1-8.
- Patel SP, Othus M, Chen Y, et al. Neoadjuvant-adjuvant or adjuvant-only pembrolizumab in advanced melanoma. N Engl J Med. 2023;388:813-823.
- 61. Ding W, LaPlant BR, Call TG, et al. Pembrolizumab in patients with CLL and Richter transformation or with relapsed CLL. *Blood*. 2017;129:3419-3427.

# HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	Esophageal and Esophagogastric Junction Cancer: Patient's tumor expression for	04/26/2023
	programmed death-ligand 1 (PD-L1) has a combined positive score ≥ 1, patient has tried	
	at least two previous chemotherapy regimens, and if the tumor is human epidermal	
	growth factor receptor 2 (HER2) or HER2/neu positive, trastuzumab has been tried; has	
	been removed as an option for approval.	
	Gastric Cancer: Patient's tumor expression for programmed death-ligand 1 (PD-L1)	
	has a combined positive score $\geq 1$ , patient has tried at least two previous chemotherapy	
	regimens, and if the tumor is human epidermal growth factor receptor 2 (HER2) or	
	HER2/neu positive, trastuzumab has been tried; has been removed as an option for	
	approval.	
	Hepatocellular Carcinoma: Including Hepatobiliary Cancers was removed from the	
	condition of approval. Tried at least one tyrosine kinase inhibitor was removed as a	
	requirement. Added requirement that the patient meets ONE of the following: patient	
	has unresectable disease and is not a transplant candidate; or patient has liver-confined	
	disease, inoperable by performance status, comorbidity, or with minimal or uncertain	
	extrahepatic disease; or patient has metastatic disease or extensive liver tumor burden.	
	<b>Melanoma:</b> Combined patient is $\geq 18$ years of age and patient has unresectable,	
	advanced, or metastatic disease into new option of approval with 1 year approval	
	duration. Added patient is $\geq 12$ years of age to requirement that Keytruda be used as	
	adjuvant therapy, to new option of approval with a 1 year (total) approval duration.	
	Added 2 mg/kg (up to a maximum of 200 mg) as an intravenous (IV) infusion given no	
	more frequently than once every 3 weeks as an additional dosing regimen.	
	Merkel Cell Carcinoma: Patient has recurrent regional disease added as additional	
	option for approval.  Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficent (dMMR)	
	Solid Tumors: The descriptor poorly differentiated removed for neuroendocrine tumor	
	in the Note.	
	Non-Small Cell Lung Cancer: Approval duration was changed from Approve for 1	
	year to Approve for the duration noted. Approval duration set at 1 year for all options of	
	approval except for adjuvant therapy where approval duration is set at 1 year (total).	
	Patient has advanced, or metastatic disease; Keytruda is used as first-line therapy; and	
	patient has epidermal growth factor receptor (EGFR) exon 20 mutation, KRAS G12C	
	mutation, or <i>ERBB2</i> mutation; was added as new option for approval. <i>EGFR</i> exon 20	
	and KRAS G12C mutations were removed as options for approval for first-line or	
	subsequent use of Keytruda. The tumor is PD-L1 positive, with tumor proportion score	
	$\geq$ 1% was added as requirement for patient has tried systemic therapy option for approval.	
	Patient has completely resected stage II or III disease; tumor is negative for EGFR exon	
	19 deletion, exon 21 L858R mutation, and ALK rearrangement; and patient has received	
	adjuvant chemotherapy added as option of approval.	
	Adrenal Gland Tumor: Removed the 400 mg IV infusion dosing regimen.	
	Glioma: Added new condition of approval.	
	<b>Kaposi Sarcoma:</b> Added new condition of approval. <b>Mycosis Fungoides/Sezary Syndrome:</b> Removed the 200 mg and 400 mg IV infusion	
	dosing regimens.	
	Small Cell Lung Cancer: Removed the 400 mg IV infusion dosing regimen.	
	Soft Tissue Sarcoma: Cutaneous angiosarcoma; extremity, body wall, or head and neck	
	sarcoma; and retroperitoneal or intra-abdominal sarcoma added as additional options for	
	approval.	
	Squamous Cell Skin Cancer: Recurrent, or metastatic added as descriptors to	
	requirement that the patient has locally advanced, recurrent, or metastatic disease. Patient	
	has unresectable, inoperable, or not fully resectable regional disease and curative	
	radiation therapy is not feasible was removed as an option for approval. Patient has	
	regional recurrence or metastatic disease and curative radiation or curative surgery are	
	not feasible was removed as an option for approval. Removed the 400 mg and the 2	
	mg/kg IV infusion dosing regimens.	
	<b>Thymic Carcinoma:</b> Removed the 400 mg and 2 mg/kg IV infusion dosing regimens.	
	Vulvar Cancer: Removed the 400 mg and 2 mg/kg IV infusion dosing regimens.	A = 10
Annual Revision	Biliary Tract Cancer: Added new condition of approval.	05/01/2024

**Breast Cancer:** Moved estrogen receptor-negative, progesterone receptor-negative, and human epidermal growth factor receptor 2 (HER2)-negative from criterion to a Note.

**Cervical Cancer:** Patient has FIGO 2014 stage III to IVA disease was added as an option for approval.

Colon, Rectal, or Appendiceal Cancer: Added new condition of approval.

**Endometrial Carcinoma:** Patient has progressed on at least one prior systemic therapy and patient is not a candidate for curative surgery or radiation were removed from the criteria. Medication is used for primary or adjuvant therapy, in combination with carboplatin and paclitaxel, or as a single agent for maintenance therapy was added as an option for approval. Added patient has recurrent disease and is treated in combination with Lenvima (lenvatinib capsules) or carboplatin and paclitaxel, or as a single agent for maintenance therapy as an option for approval.

**Esophageal and Esophagogastric Junction Cancer:** Removed criterion that the patient is not a surgical candidate or the patient has unresectable, recurrent, or metastatic disease. Combined positive score (CPS) changed from  $\geq 10$  to  $\geq 1$ . Removed criterion that the medication is used first-line. Added the medication is used as monotherapy or in combination with chemotherapy as option for approval for squamous cell carcinoma. Removed criterion that patient has tried at least one previous chemotherapy regimen for squamous cell carcinoma. Added requirements that the patient has adenocarcinoma and programmed death-ligand 1 expression is CPS  $\geq 1$ .

**Gastric Cancer:** Patient has locally advanced unresectable or metastatic disease removed as an option for approval. For tumors that are HER2 positive, added requirement that the tumor PD-L1 expression is  $CPS \ge 1$ . Patients with tumor expression of PD-L1 of  $CPS \ge 1$  and medication is used in combination with cisplatin or oxaliplatin, and fluorouracil or capecitabine added as new option for approval.

**Hepatocellular Carcinoma:** If medication is used as subsequent therapy, patient has Child-Pugh Class A disease only added as new requirement.

**Melanoma:** Patient is  $\geq 18$  years of age and Keytruda will be used as neoadjuvant treatment added as option for approval.

Merkel Cell Carcinoma: The descriptor recurrent was removed from patient has locally advanced disease. Added if according to the prescriber curative surgery and curative radiation therapy are not feasible to patient has locally advanced disease and patient has recurrent regional disease.

**Non-Small Cell Lung Cancer:** KRAS G12C mutation removed as an option for approval. Patient has received neoadjuvant treatment with Keytruda added as an option for approval. Added criteria for neoadjuvant treatment with Keytruda.

**Urothelial Carcinoma:** Added patient has locally advanced or metastatic disease as an option for approval. Moved cisplatin and carboplatin as examples to a Note.

**Anal Carcinoma:** Removed requirement that the patient has received at least one other chemotherapy regimen. Added requirement that the patient has locally recurrent, persistent disease or patient has metastatic disease. Added requirement that the medication is used for subsequent therapy.

**Kaposi Sarcoma:** Changed duration of approval to 6 months.

Ovarian/Fallopian Tube/Peritoneal Cancer: Added new condition of approval.

**Small Bowel Adenocarcinoma:** Added new condition of approval.

**Soft Tissue Sarcoma:** Disease is not microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) added as requirement. Rhabdomyosarcoma added as option for approval.

Thyroid Carcinoma: Added new condition of approval. Vaginal Cancer: Added new condition of approval.

# HISTORY, CONTINUED

Type of Revision	Summary of Changes	Review Date
Annual Revision	<b>Biliary Tract Cancer:</b> Changed duration of approval from 1 year to for duration noted.	04/02/2025
	Added option for approval for 1 year for patients with unresectable, resected gross	
	residual, or metastatic disease and medication is used in combination with cisplatin and	
	gemcitabine. Added option for approval for 6 months if patient has resectable	
	locoregionally advanced gall bladder cancer, medication is used as neoadjuvant therapy,	
	and medication is used in combination with cisplatin and gemcitabine. Removed if	
	medication is used in combination with Lenvima (lenvatinib capsules), it is used for	
	subsequent therapy as an option for approval.	
	Breast Cancer: Added medication is used for preoperative and/or adjuvant therapy as	
	an option for approval. Patient has high-risk, early stage disease was removed as an	
	option for approval.  Cervical Cancer: Added FIGO 2018 stage III to IVA disease to patient has FIGO 2014	
	stage III to IVA disease or FIGO 2018 stage III to IVA disease.	
	Classical Hodgkin Lymphoma: Added patient is NOT a candidate for anthracycline	
	therapy as a new option for approval along with a Note with examples of anthracyclines.	
	Colon, Rectal, or Appendiceal Cancer: Added with ultra-hypermutated phenotype to	
	the requirement that the disease is polymerase epsilon/delta (POLE/POLD1) mutation	
	positive with ultra-hypermutated phenotype. Added Note with definition of ultra-	
	hypermutated phenotype.	
	Esophageal and Esophagogastric Junction Cancer: Added patient has unresectable	
	locally advanced, recurrent, or metastatic disease; or are not surgical candidates as a	
	requirement. Added medication is used for first-line therapy as an option for approval.	
	Added medication is used for second-line and subsequent therapy as an option for	
	approval. Removed medication is used in combination with chemotherapy as an option	
	for approval. Removed patient has adenocarcinoma; patient's tumor expression for PD-	
	L1 as determined by an approved test has a CPS $\geq$ 1; tumor is human epidermal growth	
	factor receptor 2 (HER2) or HER2/neu positive; and medication is used in combination	
	with trastuzumab, cisplatin or oxaliplatin, and fluorouracil or capecitabine as an option	
	for approval.	
	Gastric Cancer: Added patient has unresectable locally advanced, recurrent, or	
	metastatic disease; or are not surgical candidates as a requirement. Tumor is human	
	epidermal growth factor receptor 2 (HER2) or HER2/neu positive; patient's tumor	
	expression for programmed death-ligand 1 (PD-L1) as determined by an approved test	
	has a combined positive score (CPS) $\geq 1$ ; and medication is used in combination with trastuzumab, cisplatin or oxaliplatin, and fluorouracil or capecitabine were removed as	
	options for approval. Moved cisplatin or oxaliplatin, and fluorouracil or capecitabine	
	from criterion to a Note.	
	Head and Neck Squamous Cell Carcinoma: Removed patient has tried at least one	
	platinum-containing chemotherapy regimen and the associated Note. Added medication	
	is used for subsequent therapy as option for approval.	
	Hepatocellular Carcinoma: If medication is used as subsequent therapy, the patient has	
	Child-Pugh Class A disease only was removed as a requirement. Patient has liver-	
	confined disease, inoperable by performance status, comorbidity, or with minimal or	
	uncertain extrahepatic disease removed as an option for approval. Added liver-confined	
	and deemed ineligible to option of approval patient has liver-confined, unresectable	
	disease and is deemed ineligible for transplant. Added extrahepatic and are deemed	
	ineligible for resection, transplant, or locoregional therapy to option of approval patient	
	has extrahepatic/metastatic disease and are deemed ineligible for resection, transplant, or	
	locoregional therapy.	
	Melanoma: Removed advanced from patient has unresectable or metastatic melanoma.	
	Merkel Cell Carcinoma: Added primary or recurrent to patient has primary or recurrent	
	locally advanced disease. Added primary to patient has primary or recurrent regional	
	disease.  Meatheliamer Added as new condition of approval	
	Mesothelioma: Added as new condition of approval.  Non-Small Cell Lung Cancer: Removed KRAS G12C is NOT considered an actionable.	
	<b>Non-Small Cell Lung Cancer:</b> Removed KRAS G12C is NOT considered an actionable mutation from the Note. Added requirement that the patient does not have EGFR exon	
	19 deletion or L858R mutation; ALK, RET, or ROS1 rearrangements for first-line	
	therapy, first-line and subsequent therapy, and subsequent therapy. Added recurrent to	
	merapy, meeting and subsequent inerapy, and subsequent inerapy. Added recurrent to	

the criterion patient has recurrent, advanced, or metastatic disease. Added NRG1 as an option for approval. Removed RET rearrangement, EGFR exon 19 deletion or exon 21 L858R, ALK rearrangement, and ROS1 rearrangement as options for approval. Removed patient has tried systemic therapy as a requirement. Added the medication is used as subsequent therapy and the medication is used as a single agent as requirements. Requirement and the associated Note that if the tumor is positive for actionable mutation, the patient has received targeted drug therapy for the specific mutation was removed. Stage II was revised to Stage IB.

**Renal Cell Carcinoma:** In combination with Lenvima was added to the medication is used in combination with Lenvima or as single-agent therapy.

**Urothelial Carcinoma:** Added high-risk to patient has high-risk, non-muscle invasive bladder cancer. Removed intravesical chemotherapy and added unresponsive to patient is Bacillus Calmette-Guerin (BCG) unresponsive.

**Anal Carcinoma:** Removed medication is used as a single agent as a requirement. Added progressive and removed persistent from patient has locally recurrent, progressive disease. Added medication is administered before proceeding to abdominoperineal resection. Removed with no prior immunotherapy received from patient has metastatic disease. Added requirement that patient has NOT received prior immunotherapy and a Note with examples of immunotherapy.

Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma: Added as new condition of approval.

**Kaposi Sarcoma:** Removed patient has endemic or classic Kaposi sarcoma and medication is used as subsequent therapy as requirements. Medication is used as a single agent added as a requirement.

**Ovarian/Fallopian Tube/Peritoneal Cancer:** Added persistent or recurrent to patient has platinum-resistant persistent or recurrent disease. Removed requirement medication is used for the treatment of recurrence.

Penile Cancer: Added new condition of approval.

**Small Bowel Adenocarcinoma:** Removed DNA and added with ultra-hypermutated phenotype to disease is polymerase epsilon/delta 1 (POLE/POLD1) mutation positive with ultra-hypermutated phenotype. Added Note with definition of ultra-hypermutated phenotype.

Small Cell Lung Cancer: Added patient has not been treated with an immune checkpoint inhibitor, and there is a chemotherapy-free interval of  $\leq 6$  months as requirements.

**Thyroid Carcinoma:** Added disease is not microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) as requirement. Added associated Note. Added Disease is not tumor mutational burden-high ( $\geq 10$  mutations/megabase) as requirement. Added associated Note. Added medication is used as a single agent as option for approval.

Vulvar Cancer: Added requirement that the patient has advanced, recurrent, or metastatic disease. Removed the tumor is PD-L1 positive (combined positive score  $\geq$  1), as determined by an approved test and patient has tried at least one other chemotherapy regimen as requirements.

Selected revision

**Squamous Cell Skin Cancer:** This condition for approval was removed from "Other Uses with Supportive Evidence" and is included in **Cutaneous Squamous Cell Carcinoma** under "FDA-Approved Indication".

05/21/2025