Keytruda® (pembrolizumab) – New indications

- On May 18, 2017, the FDA announced the approval of Merck's Keytruda (pembrolizumab) injection, for the treatment of patients with locally advanced or metastatic urothelial carcinoma (UC) who are not eligible for cisplatin-containing chemotherapy, and for the treatment of patients with locally advanced or metastatic UC who have disease progression during or following platinum-containing chemotherapy or within 12 months of neoadjuvant or adjuvant treatment with platinum-containing chemotherapy.

- Keytruda is also approved for the following indications:

    - Treatment of patients with unresectable or metastatic melanoma.
    - As a single agent for the first-line treatment of patients with metastatic non-small cell lung cancer (NSCLC) whose tumors have high PD-L1 expression [Tumor Proportion Score (TPS) ≥ 50%] as determined by an FDA-approved test, with no EGFR or ALK genomic tumor aberrations.
    - As a single agent for the treatment of patients with metastatic NSCLC whose tumors express PD-L1 (TPS ≥ 1%) as determined by an FDA-approved test, with disease progression on or after platinum-containing chemotherapy. Patients with EGFR or ALK genomic tumor aberrations should have disease progression on FDA-approved therapy for these aberrations prior to receiving Keytruda.
    - In combination with Alimta® (pemetrexed) and carboplatin, as first-line treatment of patients with metastatic nonsquamous NSCLC.
    - Treatment of patients with recurrent or metastatic head and neck squamous cell carcinoma with disease progression on or after platinum-containing chemotherapy.
    - Treatment of adult and pediatric patients with refractory classical Hodgkin lymphoma, or who have relapsed after 3 or more prior lines of therapy.

- The accelerated approval of Keytruda for the first-line indication in UC was based on the single-arm KEYNOTE-052 study. This study enrolled 370 patients with locally advanced or metastatic UC who were not eligible for cisplatin-containing chemotherapy. Patients without disease progression could be treated with Keytruda for up to 24 months. The major efficacy outcome measures were ORR and DOR.

    - The ORR was 29% (95% CI: 24, 34).
    - The median duration of response was not reached (range: 1.4+, 17.8+).

- The approval of Keytruda for the second-line indication in UC was based on the KEYNOTE-045 study. A total of 542 patients with locally advanced or metastatic UC with disease progression on or after platinum-containing chemotherapy were randomized to Keytruda or other chemotherapy regimens. The major efficacy outcomes were overall survival (OS) and progression-free survival (PFS). Additional efficacy outcomes included objective response rate (ORR) and duration of response (DOR).

    - Fewer deaths occurred in the Keytruda arm vs. the chemotherapy arm (57% vs. 66%). The median OS was 10.3 months in the Keytruda arm vs. 7.4 months in the chemotherapy arm (HR = 0.73; [95% CI: 0.59, 0.91]; p = 0.004).
    - There was no statistically significant difference in PFS between the Keytruda and chemotherapy arm (p = 0.833).
    - The ORR was 21% for the Keytruda arm vs. 11% for the chemotherapy arm (p = 0.002).
    - The median DOR was not reached (95% CI: 1.6+, 15.6+) for the Keytruda arm vs. 4.3 months (95% CI: 1.4+, 15.4+) for the chemotherapy arm.

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- The recommended dose of Keytruda for UC is 200 mg administered as an intravenous infusion over 30 minutes every 3 weeks until disease progression or unacceptable toxicity, or up to 24 months in patients without disease progression.

- Consult Keytruda's drug label for dosing recommendations in other indications.