

To estimate the **Potential Peak Sales** for dostarlimab-gxly (Jemperli) in the indication of mismatch repair deficient (dMMR) recurrent or advanced endometrial cancer in the US, EU5 (Germany, France, Italy, Spain, UK), China, and Japan, as well as the **\$ value of a 1% share of treated patients** in these geographies, we need to follow a structured approach. This involves estimating the target patient population, pricing, market share, and peak sales potential. Since specific data on patient numbers, pricing, or market penetration may not be fully public or provided in your query, I will use reasonable assumptions based on available oncology market trends, epidemiology data, and typical pricing for innovative cancer therapies. Let's break this down step by step.

****Step 1: Indication and Target Population****

Dostarlimab-gxly is approved for adult patients with dMMR recurrent or advanced endometrial cancer who have progressed on or after a platinum-containing regimen. We need to estimate the number of eligible patients in each geography.

- Endometrial Cancer Incidence and dMMR Prevalence:

- Endometrial cancer is one of the most common gynecologic cancers. Incidence rates vary by region:

- **US:** ~66,000 new cases/year (American Cancer Society, 2023 estimate).

- **EU5:** ~100,000 new cases/year (combined for Germany, France, Italy, Spain, UK; based on GLOBOCAN 2020 data).

- **China:** ~82,000 new cases/year (GLOBOCAN 2020).

- **Japan:** ~17,000 new cases/year (GLOBOCAN 2020).

- Approximately **20-30% of endometrial cancer cases are recurrent or advanced** at diagnosis or during follow-up.

- Of these, **~25-30% are dMMR** (mismatch repair deficient), as dMMR is a specific biomarker subset often associated with microsatellite instability (MSI-H).

- Eligible Patients (Recurrent/Advanced dMMR Post-Platinum):

- Assuming ~25% of total cases are recurrent/advanced and 25% of those are dMMR, and further assuming 80% of recurrent/advanced patients have received a platinum-containing regimen (standard of care), we can estimate the target population.

- Calculation for US as an example:

- Total cases: 66,000

- Recurrent/Advanced: 25% of 66,000 = ~16,500

- dMMR subset: 25% of 16,500 = ~4,125

- Post-platinum: 80% of 4,125 = ~3,300 eligible patients/year.

Using similar logic for other regions (adjusted for incidence):

- **US:** ~3,300 patients/year

- **EU5:** ~5,000 patients/year (combined, based on higher incidence)

- **China:** ~4,100 patients/year
- **Japan:** ~850 patients/year
- **Total:** ~13,250 patients/year across all geographies.

****Step 2: Market Share Assumption****

The query assumes a **20% to 30% share of treated patients** for dostarlimab-gxly. This is reasonable for a novel immunotherapy in a biomarker-specific subset, considering competition from other therapies (e.g., pembrolizumab, which is also approved in dMMR/MSI-H solid tumors) and potential off-label use or alternative treatments.

- At **20% share:** ~2,650 treated patients/year ($13,250 * 0.2$)
- At **30% share:** ~3,975 treated patients/year ($13,250 * 0.3$)

****Step 3: Pricing and Treatment Cost****

Dostarlimab-gxly is an anti-PD-1 monoclonal antibody, and pricing for such therapies in oncology is typically high, often in the range of **\$100,000 to \$150,000 per patient per year** in the US for drugs like pembrolizumab or nivolumab. Pricing in other regions is generally lower due to healthcare system negotiations and pricing controls:

- **US:** \$150,000/year per patient
- **EU5:** \$100,000/year per patient (average across countries)
- **China:** \$50,000/year per patient (lower due to market access programs and pricing caps)
- **Japan:** \$100,000/year per patient (similar to EU5, adjusted for healthcare system)

Since patient distribution across regions isn't equal, we'll calculate weighted contributions based on patient numbers:

- US: $3,300/13,250 = \sim 25\%$ of patients
- EU5: $5,000/13,250 = \sim 38\%$
- China: $4,100/13,250 = \sim 31\%$
- Japan: $850/13,250 = \sim 6\%$

****Step 4: Potential Peak Sales Calculation****

Peak sales are calculated as the number of treated patients * annual treatment cost per patient, aggregated by region.

At 20% Market Share (2,650 patients treated):

- **US:** 20% of 3,300 = 660 patients * \$150,000 = \$99 million
- **EU5:** 20% of 5,000 = 1,000 patients * \$100,000 = \$100 million
- **China:** 20% of 4,100 = 820 patients * \$50,000 = \$41 million
- **Japan:** 20% of 850 = 170 patients * \$100,000 = \$17 million
- **Total Peak Sales at 20% Share:** \$99M + \$100M + \$41M + \$17M = **\$257 million/year**

At 30% Market Share (3,975 patients treated):

- **US:** 30% of 3,300 = 990 patients * \$150,000 = \$148.5 million
- **EU5:** 30% of 5,000 = 1,500 patients * \$100,000 = \$150 million
- **China:** 30% of 4,100 = 1,230 patients * \$50,000 = \$61.5 million
- **Japan:** 30% of 850 = 255 patients * \$100,000 = \$25.5 million
- **Total Peak Sales at 30% Share:** \$148.5M + \$150M + \$61.5M + \$25.5M = **\$385.5 million/year**

Thus, **Potential Peak Sales** for dostarlimab-gxly in this indication across the US, EU5, China, and Japan range from **\$257 million to \$385.5 million per year** at 20% to 30% market share.

****Step 5: \$ Value of 1% Share of Treated Patients****

A 1% share of treated patients corresponds to 1% of the total eligible patients (13,250), which is **132.5 patients/year**.

- **US:** 1% of 3,300 = 33 patients * \$150,000 = \$4.95 million
- **EU5:** 1% of 5,000 = 50 patients * \$100,000 = \$5 million
- **China:** 1% of 4,100 = 41 patients * \$50,000 = \$2.05 million
- **Japan:** 1% of 850 = 8.5 patients * \$100,000 = \$0.85 million
- **Total \$ Value of 1% Share:** \$4.95M + \$5M + \$2.05M + \$0.85M = **\$12.85 million/year**

Thus, a **1% share of treated patients** in these geographies is worth approximately **\$12.85 million per year**.

****Final Answer****

- **Potential Peak Sales for dostarlimab-gxly** in dMMR recurrent or advanced endometrial cancer (post-platinum) at 20% to 30% market share:

- **\$257 million to \$385.5 million per year** across the US, EU5, China, and Japan.

- **\$ Value of 1% Share of Treated Patients:**

- **\$12.85 million per year** across the same geographies.

Note: These estimates are based on assumptions about epidemiology, pricing, and market share. Actual figures could vary based on real-world data, competition (e.g., pembrolizumab), reimbursement policies, and market access timelines, especially in China. If you have specific data or additional details (e.g., exact pricing or patient numbers), I can refine the calculations further.