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 (France, Germany, Italy, Spain, UK), China, and Japan, as well as the **$ value of a 1% share of treated patients**, we need to follow a structured approach. Since specific data on patient numbers, pricing, and market penetration might not be fully available, I will outline the methodology and make reasonable assumptions based on publicly available data and typical market dynamics for oncology drugs. Let's break this down step by step.

Step 1: Define the 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 and are not candidates for curative surgery or radiation. dMMR is a specific biomarker present in approximately **25-30% of endometrial cancer cases**.

- **Endometrial Cancer Incidence**:

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

- EU5: ~100,000 new cases/year (combined estimate based on GLOBOCAN 2020).

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

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

- **Recurrent/Advanced Cases**: Approximately 20-25% of endometrial cancer patients progress to recurrent or advanced stages.

- **dMMR Prevalence**: ~25-30% of endometrial cancer cases.

- **Eligible for Second-Line Therapy (post-platinum failure)**: Of advanced/recurrent cases, ~50-60% may progress after first-line platinum-based therapy and be ineligible for surgery/radiation.

Using these assumptions, we can estimate the eligible patient population:

- **US**: 66,000 * 25% (advanced/recurrent) * 30% (dMMR) * 50% (post-platinum failure) = ~2,475 patients/year.

- **EU5**: 100,000 * 25% * 30% * 50% = ~3,750 patients/year.

- **China**: 82,000 * 25% * 30% * 50% = ~3,075 patients/year.

- **Japan**: 17,000 * 25% * 30% * 50% = ~638 patients/year.

- **Total Eligible Patients**: ~9,938 patients/year across these geographies.

Step 2: Estimate Treated Patient Share

The problem assumes a **20-30% share of treated patients** for dostarlimab-gxly. This accounts for competition (e.g., other immunotherapies like pembrolizumab, which is also approved in this space) and market access challenges. Let's use the midpoint of **25%** for calculations.

- **Treated Patients with Dostarlimab**:

- US: 2,475 * 25% = ~619 patients/year.

- EU5: 3,750 * 25% = ~938 patients/year.

- China: 3,075 * 25% = ~769 patients/year.

- Japan: 638 * 25% = ~160 patients/year.

- **Total Treated Patients**: ~2,486 patients/year.

Step 3: Estimate Annual Treatment Cost per Patient

Dostarlimab-gxly is an immune checkpoint inhibitor (anti-PD-1), and pricing for such drugs typically ranges from **$100,000 to $150,000 per patient per year** in the US, with variations in other markets due to pricing controls and reimbursement policies. Let's assume:

- US: $150,000/year.

- EU5: $100,000/year (lower due to negotiated pricing).

- China: $50,000/year (significant discounts due to market access and local policies).

- Japan: $120,000/year (closer to US pricing but with some discounts).

Step 4: Calculate Potential Peak Sales

Peak sales are calculated as the number of treated patients multiplied by the annual treatment cost per patient.

- **US**: 619 patients * $150,000 = **$92.85 million/year**.

- **EU5**: 938 patients * $100,000 = **$93.8 million/year**.

- **China**: 769 patients * $50,000 = **$38.45 million/year**.

- **Japan**: 160 patients * $120,000 = **$19.2 million/year**.

- **Total Peak Sales**: $92.85M + $93.8M + $38.45M + $19.2M = **~$244.3 million/year**.

This estimate assumes a 25% market share. If we consider the range of 20-30%:

- At 20%: ~$195.4 million/year.

- At 30%: ~$293.2 million/year.

Thus, **Potential Peak Sales** for dostarlimab-gxly in this indication across the specified geographies range from **$195 million to $293 million annually**, with a midpoint of ~$244 million.

Step 5: Calculate $ Value of 1% Share of Treated Patients

A 1% share of treated patients corresponds to 1% of the total eligible patient population being treated with dostarlimab-gxly. Using the total eligible patients calculated earlier (~9,938):

- 1% of eligible patients = 9,938 * 1% = ~99 patients/year.

Now, calculate the revenue for these 99 patients based on the proportion of patients in each geography and the respective pricing:

- **US**: (2,475/9,938) * 99 * $150,000 = ~$3.73 million.

- **EU5**: (3,750/9,938) * 99 * $100,000 = ~$3.73 million.

- **China**: (3,075/9,938) * 99 * $50,000 = ~$1.53 million.

- **Japan**: (638/9,938) * 99 * $120,000 = ~$0.76 million.

- **Total $ Value of 1% Share**: $3.73M + $3.73M + $1.53M + $0.76M = **~$9.75 million/year**.

Thus, the **$ value of a 1% share of treated patients** across these geographies is approximately **$9.75 million annually**.

Final Answer

- **Potential Peak Sales for Dostarlimab-gxly** (at 20-30% market share): **$195 million to $293 million annually**, with a midpoint of ~$244 million.

- **$ Value of 1% Share of Treated Patients**: **~$9.75 million annually**.

Caveats and Assumptions

1. Patient population estimates are based on incidence data and assumptions about recurrence, dMMR prevalence, and eligibility for second-line therapy. Actual numbers may vary.

2. Pricing assumptions reflect typical costs for PD-1 inhibitors but may differ based on negotiations, reimbursement, and local market dynamics.

3. Market share assumptions (20-30%) account for competition and market access barriers, but real-world penetration could differ.

4. Peak sales are calculated on an annual basis at steady-state market penetration, which may take several years to achieve post-launch.

If more specific data (e.g., exact patient numbers, pricing, or competitor dynamics) is available, these estimates can be refined further.