

To estimate the **Potential Peak Sales** for selinexor (XPOVIO) in the indication of multiple myeloma (MM) for patients who have received at least one prior therapy in the US, EU5 (France, Germany, 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. Since specific data such as exact patient numbers, pricing, or market penetration rates are not provided, I will outline the methodology and make reasonable assumptions based on publicly available information and industry standards. The final numbers are illustrative and should be refined with precise data.

Step 1: Define the Target Patient Population

Selinexor is approved for adult patients with multiple myeloma (MM) who have received at least one prior therapy (relapsed/refractory MM, or RRMM). We need to estimate the number of eligible patients in each geography.

- **US:** Approximately 34,000 new MM cases are diagnosed annually (American Cancer Society). About 50-60% of MM patients progress to RRMM after first-line therapy. Assuming a prevalent population of ~60,000-70,000 MM patients, roughly 30,000-40,000 are in the RRMM stage.
- **EU5:** Incidence is similar to the US, adjusted for population. EU5 has a combined population of ~330 million (vs. US ~330 million), so we assume a similar number of RRMM patients, ~30,000-40,000.
- **China:** With a population of ~1.4 billion, MM incidence is lower due to differences in demographics and healthcare access, but growing. Assuming an incidence of ~1-2 per 100,000, new cases are ~20,000-30,000 annually. RRMM patients could be ~15,000-25,000.
- **Japan:** Population ~125 million, with a higher aging demographic. MM incidence is ~5-6 per 100,000, leading to ~6,000-8,000 new cases annually. RRMM patients are estimated at ~3,000-5,000.

Assumed RRMM Eligible Patients (for selinexor indication):

- US: 35,000
- EU5: 35,000
- China: 20,000
- Japan: 4,000
- **Total:** 94,000 patients

Step 2: Estimate the Share of Treated Patients

The query assumes a **20% to 30% share of treated patients** for selinexor. This accounts for market penetration, competition (e.g., other therapies like daratumumab, lenalidomide, etc.), and physician adoption.

- **Low end (20%):** $94,000 * 0.20 = 18,800$ patients
- **High end (30%):** $94,000 * 0.30 = 28,200$ patients

Breakdown by geography (proportionate to patient population):

- **US:** $35,000 * 20\%-30\% = 7,000-10,500$ patients
- **EU5:** $35,000 * 20\%-30\% = 7,000-10,500$ patients
- **China:** $20,000 * 20\%-30\% = 4,000-6,000$ patients
- **Japan:** $4,000 * 20\%-30\% = 800-1,200$ patients

Step 3: Estimate Annual Treatment Cost per Patient

Selinexor pricing varies by region due to differences in healthcare systems and pricing negotiations. Based on available data:

- **US:** Selinexor's list price is ~\$22,000 per month (as of initial launch data for XPOVIO). Assuming a treatment duration of 6-12 months, annual cost per patient is ~\$132,000-\$264,000. We'll assume an average of **\$200,000/year**.
- **EU5:** Pricing is typically 40-60% of US prices due to negotiations. Assume **\$100,000/year**.
- **China:** Pricing is lower due to market access programs and generics competition. Assume **\$50,000/year**.
- **Japan:** Pricing is often aligned closer to EU levels. Assume **\$100,000/year**.

Step 4: Calculate Potential Peak Sales

Peak sales are calculated as: (Number of treated patients) * (Annual cost per patient).

Low End (20% Share)

- **US:** $7,000 \text{ patients} * \$200,000 = \text{\$1.4 billion}$
- **EU5:** $7,000 \text{ patients} * \$100,000 = \text{\$0.7 billion}$
- **China:** $4,000 \text{ patients} * \$50,000 = \text{\$0.2 billion}$
- **Japan:** $800 \text{ patients} * \$100,000 = \text{\$0.08 billion}$
- **Total Peak Sales (20%):** $\$1.4\text{B} + \$0.7\text{B} + \$0.2\text{B} + \$0.08\text{B} = \text{\$2.38 billion}$

High End (30% Share)

- **US:** $10,500 \text{ patients} * \$200,000 = \text{\$2.1 billion}$
- **EU5:** $10,500 \text{ patients} * \$100,000 = \text{\$1.05 billion}$
- **China:** $6,000 \text{ patients} * \$50,000 = \text{\$0.3 billion}$
- **Japan:** $1,200 \text{ patients} * \$100,000 = \text{\$0.12 billion}$
- **Total Peak Sales (30%):** $\$2.1\text{B} + \$1.05\text{B} + \$0.3\text{B} + \$0.12\text{B} = \text{\$3.57 billion}$

Potential Peak Sales Range for Selinexor: \$2.38 billion to \$3.57 billion annually across US, EU5, China, and Japan for this indication.

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 (94,000), i.e., 940 patients globally.

Breakdown by geography (proportionate to patient population):

- **US:** $35,000 * 1\% = 350 \text{ patients} * \$200,000 = \$70 \text{ million}$
- **EU5:** $35,000 * 1\% = 350 \text{ patients} * \$100,000 = \$35 \text{ million}$
- **China:** $20,000 * 1\% = 200 \text{ patients} * \$50,000 = \$10 \text{ million}$
- **Japan:** $4,000 * 1\% = 40 \text{ patients} * \$100,000 = \$4 \text{ million}$
- **Total \$ Value of 1% Share:** $\$70\text{M} + \$35\text{M} + \$10\text{M} + \$4\text{M} = \$119 \text{ million}$

\$ Value of 1% Share of Treated Patients: \$119 million annually across US, EU5, China, and Japan.

Final Answer

- **Potential Peak Sales for Selinexor** in the indication of multiple myeloma (RRMM) with 20%-30% share of treated patients:

- **\$2.38 billion to \$3.57 billion annually** across US, EU5, China, and Japan.

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

- **\$119 million annually** across US, EU5, China, and Japan.

Note: These estimates are based on assumptions regarding patient population, market share, and pricing. Actual figures may vary based on real-world data, competition, reimbursement policies, and market dynamics. For precise calculations, primary data from Karyopharm Therapeutics, epidemiology studies, or market research reports should be consulted.