To estimate the **Potential Peak Sales** for capmatinib (Tabrecta) in the indication of metastatic non-small cell lung cancer (NSCLC) with MET exon 14 skipping mutation 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 on patient numbers, pricing, and market share may not be fully available, I will make reasonable assumptions based on publicly available data, epidemiology, and market trends for NSCLC and targeted therapies. I will outline the methodology and provide approximate figures.

Step 1: Define the Target Population

Capmatinib is approved for metastatic NSCLC patients with MET exon 14 skipping mutation. This is a niche indication, as MET exon 14 skipping mutations occur in approximately **3-4% of NSCLC patients**.

Epidemiology of NSCLC and MET Exon 14 Skipping Mutation

- **NSCLC Incidence (Annual New Cases):**

- US: ~225,000 new cases/year (American Cancer Society)

- EU5: ~320,000 new cases/year (combined estimate based on GLOBOCAN data)

- China: ~780,000 new cases/year (high incidence due to smoking and pollution)

- Japan: ~125,000 new cases/year (GLOBOCAN data)

- **Metastatic NSCLC:** Approximately 50-60% of NSCLC cases are diagnosed at a metastatic stage (Stage IV).

- **MET Exon 14 Skipping Mutation:** ~3-4% of NSCLC patients have this mutation.

Estimated Eligible Patient Population (Metastatic NSCLC with MET Exon 14 Skipping)

Using the midpoint of 3.5% prevalence for MET exon 14 skipping and assuming 55% of NSCLC cases are metastatic:

- US: 225,000 * 0.55 * 0.035 = ~4,330 patients/year

- EU5: 320,000 * 0.55 * 0.035 = ~6,160 patients/year

- China: 780,000 * 0.55 * 0.035 = ~15,015 patients/year

- Japan: 125,000 * 0.55 * 0.035 = ~2,406 patients/year

- **Total Eligible Patients Across Geographies:** ~27,911 patients/year

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Step 2: Estimate Treated Patients (Market Penetration)

Not all eligible patients will receive treatment due to factors like lack of diagnosis, access to testing, healthcare system barriers, or patient ineligibility for therapy. Assuming a **20-30% share of treated patients** among eligible patients (as per the question), we calculate the number of treated patients.

- **20% Share of Treated Patients:**

- US: 4,330 * 0.20 = 866 patients

- EU5: 6,160 * 0.20 = 1,232 patients

- China: 15,015 * 0.20 = 3,003 patients

- Japan: 2,406 * 0.20 = 481 patients

- Total: ~5,582 treated patients

- **30% Share of Treated Patients:**

- US: 4,330 * 0.30 = 1,299 patients

- EU5: 6,160 * 0.30 = 1,848 patients

- China: 15,015 * 0.30 = 4,505 patients

- Japan: 2,406 * 0.30 = 722 patients

- Total: ~8,374 treated patients

Step 3: Estimate Annual Treatment Cost per Patient

Capmatinib's pricing varies by geography due to differences in healthcare systems, pricing negotiations, and purchasing power. Based on available data for targeted therapies in NSCLC (e.g., osimertinib, crizotinib), I assume the following annual costs per patient (approximate figures for 2023):

- US: ~$200,000/year (high pricing due to private insurance and lack of universal healthcare)

- EU5: ~$120,000/year (lower due to government negotiations and price controls)

- China: ~$50,000/year (significant price reductions due to national drug price negotiations and generics competition)

- Japan: ~$150,000/year (high pricing but slightly below US levels due to national health insurance)

These are rough estimates and may vary based on actual pricing data, discounts, and patient assistance programs.

Step 4: Calculate Potential Peak Sales

Peak sales are calculated by multiplying the number of treated patients by the annual treatment cost per patient for each geography.

Peak Sales at 20% Share of Treated Patients

- US: 866 patients * $200,000 = **$173.2 million**

- EU5: 1,232 patients * $120,000 = **$147.8 million**

- China: 3,003 patients * $50,000 = **$150.2 million**

- Japan: 481 patients * $150,000 = **$72.2 million**

- **Total Peak Sales (20% Share): $543.4 million**

Peak Sales at 30% Share of Treated Patients

- US: 1,299 patients * $200,000 = **$259.8 million**

- EU5: 1,848 patients * $120,000 = **$221.8 million**

- China: 4,505 patients * $50,000 = **$225.3 million**

- Japan: 722 patients * $150,000 = **$108.3 million**

- **Total Peak Sales (30% Share): $815.2 million**

Thus, the **Potential Peak Sales** for capmatinib in this indication across the US, EU5, China, and Japan range from **$543 million to $815 million**, depending on the market share (20-30%).

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

A 1% share of treated patients corresponds to 1% of the eligible patient population being treated with capmatinib. Using the total eligible patient numbers calculated earlier:

- US: 4,330 * 0.01 = 43.3 patients

- EU5: 6,160 * 0.01 = 61.6 patients

- China: 15,015 * 0.01 = 150.2 patients

- Japan: 2,406 * 0.01 = 24.1 patients

Now, multiply by the annual treatment cost per patient:

- US: 43.3 * $200,000 = **$8.66 million**

- EU5: 61.6 * $120,000 = **$7.39 million**

- China: 150.2 * $50,000 = **$7.51 million**

- Japan: 24.1 * $150,000 = **$3.62 million**

- **Total $ Value of 1% Share Across Geographies: $27.18 million**

Final Answer

1. **Potential Peak Sales for Capmatinib (20-30% Share of Treated Patients):**

- US: $173.2M - $259.8M

- EU5: $147.8M - $221.8M

- China: $150.2M - $225.3M

- Japan: $72.2M - $108.3M

- **Total: $543.4M - $815.2M**

2. **$ Value of 1% Share of Treated Patients:**

- US: $8.66M

- EU5: $7.39M

- China: $7.51M

- Japan: $3.62M

- **Total: $27.18M**

Notes and Caveats

- These estimates are based on assumptions about epidemiology, market penetration, and pricing. Actual figures may differ due to real-world factors like competition (e.g., other MET inhibitors such as tepotinib), diagnostic testing rates, reimbursement policies, and patient access.

- Peak sales typically occur several years after launch as market penetration increases, and sales may decline later due to generics or new therapies.

- The pricing assumptions are rough and may need adjustment based on country-specific data or Novartis' pricing strategy for capmatinib.