Since the drug name is mentioned as "nan" (likely a placeholder), I'll assume it refers to a hypothetical or unspecified drug for the purpose of this analysis. I'll provide a framework to calculate the **Potential Peak Sales** and the **$ value of 1% share of treated patients** for the indication of advanced or metastatic esophageal squamous cell carcinoma (ESCC) in the US, EU5 (France, Germany, Italy, Spain, UK), China, and Japan. This will be based on general market data, epidemiology, and assumptions about pricing and market penetration. If you have specific data for the drug or indication, you can adjust the numbers accordingly.

Step 1: Key Assumptions and Framework

1. **Epidemiology of ESCC**:

- Esophageal cancer is broadly divided into squamous cell carcinoma (ESCC) and adenocarcinoma (EAC). ESCC is more prevalent in Asia (especially China and Japan) compared to the US and EU, where EAC is more common.

- Incidence rates for ESCC (advanced or metastatic) will be estimated based on available data.

- I'll use approximate numbers for the total number of treatable patients (advanced or metastatic ESCC) in each geography.

2. **Market Penetration**:

- Assuming 20% to 30% of treated patients as the market share for the drug.

3. **Pricing**:

- Pricing for oncology drugs varies by region. For simplicity, I'll assume an annual cost per patient based on typical pricing for advanced cancer therapies (e.g., immunotherapy or targeted therapies).

- US: ~$150,000 per patient per year.

- EU5: ~$100,000 per patient per year (lower due to pricing negotiations).

- China: ~$50,000 per patient per year (lower due to affordability and market access challenges).

- Japan: ~$120,000 per patient per year (closer to US pricing but slightly lower).

4. **Patient Population**:

- Total number of advanced or metastatic ESCC patients eligible for first-line treatment will be estimated based on incidence and proportion of advanced cases.

Step 2: Estimated Patient Population for Advanced/Metastatic ESCC

Using epidemiology data (approximations based on cancer statistics):

- **US**: ~18,000 new esophageal cancer cases annually; ~70% are advanced/metastatic at diagnosis; ~30% are ESCC. Thus, ~3,800 eligible patients.

- **EU5**: ~40,000 new cases annually; ~70% advanced/metastatic; ~30% ESCC. Thus, ~8,400 eligible patients.

- **China**: ~300,000 new esophageal cancer cases annually; ~70% advanced/metastatic; ~90% ESCC. Thus, ~189,000 eligible patients.

- **Japan**: ~20,000 new cases annually; ~70% advanced/metastatic; ~80% ESCC. Thus, ~11,200 eligible patients.

- **Total Eligible Patients**: ~212,400 across these geographies.

Step 3: Potential Treated Patients (20%-30% Market Share)

- **20% Market Share**:

- US: 3,800 * 20% = 760 patients

- EU5: 8,400 * 20% = 1,680 patients

- China: 189,000 * 20% = 37,800 patients

- Japan: 11,200 * 20% = 2,240 patients

- **Total**: 42,480 patients

- **30% Market Share**:

- US: 3,800 * 30% = 1,140 patients

- EU5: 8,400 * 30% = 2,520 patients

- China: 189,000 * 30% = 56,700 patients

- Japan: 11,200 * 30% = 3,360 patients

- **Total**: 63,720 patients

Step 4: Potential Peak Sales Calculation

Using the annual cost per patient:

- **At 20% Market Share**:

- US: 760 patients * $150,000 = **$114 million**

- EU5: 1,680 patients * $100,000 = **$168 million**

- China: 37,800 patients * $50,000 = **$1,890 million**

- Japan: 2,240 patients * $120,000 = **$269 million**

- **Total Peak Sales**: **$2,441 million** (~$2.44 billion)

- **At 30% Market Share**:

- US: 1,140 patients * $150,000 = **$171 million**

- EU5: 2,520 patients * $100,000 = **$252 million**

- China: 56,700 patients * $50,000 = **$2,835 million**

- Japan: 3,360 patients * $120,000 = **$403 million**

- **Total Peak Sales**: **$3,661 million** (~$3.66 billion)

Thus, **Potential Peak Sales** for the drug in this indication across the US, EU5, China, and Japan range from **$2.44 billion to $3.66 billion**, assuming a 20%-30% market share.

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

- **1% of Eligible Patients**:

- US: 3,800 * 1% = 38 patients * $150,000 = **$5.7 million**

- EU5: 8,400 * 1% = 84 patients * $100,000 = **$8.4 million**

- China: 189,000 * 1% = 1,890 patients * $50,000 = **$94.5 million**

- Japan: 11,200 * 1% = 112 patients * $120,000 = **$13.4 million**

- **Total Value of 1% Share**: **$122 million**

Final Answer:

1. **Potential Peak Sales** for the drug in advanced or metastatic ESCC (assuming 20%-30% market share):

- **$2.44 billion to $3.66 billion** across the US, EU5, China, and Japan.

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

- **$122 million** across the US, EU5, China, and Japan.

Notes:

- These figures are based on assumptions and approximations. Real-world data on patient numbers, pricing, and market access (e.g., reimbursement, competition) could significantly alter these estimates.

- If you have specific data on the drug (e.g., actual pricing, trial data, or market share expectations), I can refine the calculations.

- China dominates the sales potential due to the high incidence of ESCC, though pricing and access challenges may reduce actual revenue.