Evaluating Fertility Treatment Costs in Japan: A Micro-Costing Analysis

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CONCLUSIONS

- ✓ Costs associated with oocyte retrieval, pregnancy, and live birth comprise over two-thirds (69%) of the cost of ART treatment in Japan.
- ✓ In contrast, the costs for r-hFSH alfa originator represent only a small fraction (4%) of ART treatment expenses in Japan, possibly due to the use of natural or low-stimulation cycles, which typically require less medication.

INTRODUCTION

- In April 2022, a new reimbursement system for fertility treatment was introduced in Japan leading to broader access to treatment for many patients.[1]
- Understanding the key cost drivers of fertility treatment under this new system is crucial for informing future policy decisions.

OBJECTIVE

- To describe costs for assisted reproductive technology (ART) with one fresh embryo transfer (ET) leading to a live birth in Japan.
- To determine the proportion of costs attributed to different aspects of treatment including screening and monitoring, ovarian stimulation, oocyte retrieval, fertilization, embryo transfer, etc.
- To compare Japan's cost drivers with those reported in several other key markets.

METHOD

- We conducted a targeted review on treatment and reimbursement prices, both public and private, for ART in Japan, and referenced previous studies for the treatment and reimbursement prices from the UK, Germany, and South Korea.[2,3]
- When needed clarification was provided by expert clinicians in Japan.
- Total costs related to one ART treatment cycle leading to a live birth and the proportion attributed to drug costs (r-hFSH alfa originator) were considered.

RESULTS

Figure 2: Total Costs and Cost Breakdown for One ART Treatment Cycle With Fresh Embryo Transfer

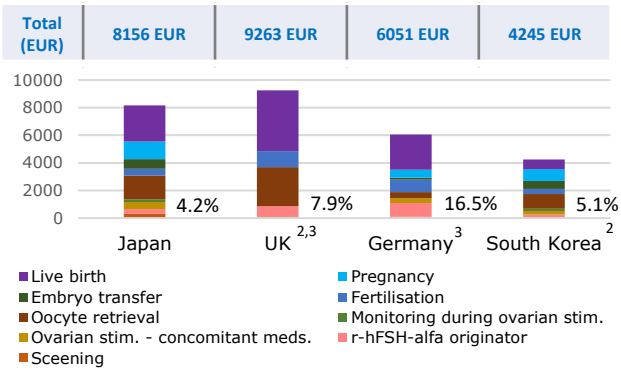
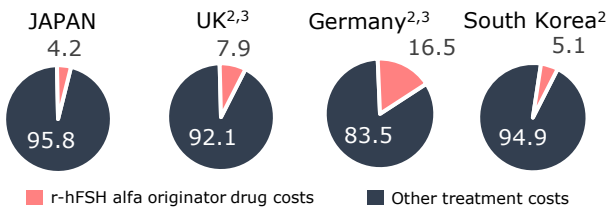
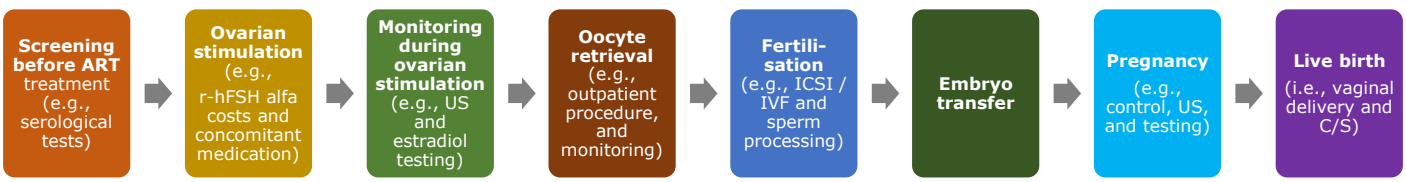


FIGURE 3. Proportion of Drug Costs r-hFSH alfa Originator as a Proportion of Total Costs



- The total cost of one ART treatment cycle leading to a live birth is estimated to be 8,156 EUR for Japan (1 JPY=0.0062 EUR), which is lower than previously estimated values for the UK, but higher than those reported for Germany and South Korea.[2,3]
- r-hFSH alfa originator drug costs constitute approx. 4.2% of the total ART treatment costs in Japan, compared to 7.9%, 16.5%, and 5.1% in the UK, Germany, and South Korea, respectively.

Figure 1: Steps for Cost Estimation for One ART Treatment Cycle with Fresh Embryo Transfer



Abbreviations: **ART**, assisted reproductive technology; **C/S**, cesarean section, **ET**, embryo transfer; **EUR**, Euros; **ICSI**, intracytoplasmic sperm injection; **IVF**, in vitro fertilization; **r-hFSH**, recombinant human follicle stimulating hormone; **US**, ultrasound

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References: 1) Ministry of Health, Labor, and Welfare. Support for infertility treatment overview (2022); 2) Matorras et al. Best Pract Res Clin Obstet Gynaecol. 2023;89:102349; 3) Chaudhari VS et al. Value in Health. 2022;25(12):S59

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