



The choice between recombinant versus urinary gonadotrophins - impact on IVF-treatment costs in Germany

K. Diedrich and A. Diemert

Department for obstetrics and gynecology, University Hospital Schleswig-Holstein; Luebeck, Germany

Introduction. According to the German IVF-registry (DIR) database 105.000 IVF-therapies were performed nationwide in 2003. ICSI-treatments accounted for 56% of the total while the remaining 44% were IVF-treatments. Following the implementation of the German health-care reform law in 2004 patients have to carry 50% of all treatment costs associated with assisted reproduction techniques, including drugs. This has led to a dramatic decrease in treatment numbers, with less than 50% of therapies performed in 2004 compared to previous years. The aim of this study was a comparative analysis of treatment costs and success rates associated with the different gonadotrophin-preparations.

Patient-population. Available data on various treatment-regimens (short protocol/long protocol/antagonist protocol) from the German IVF-database (DIR) was collected taking into account whether urinary-HMG or recombinant FSH was used for treatment. Gonadotrophin-treatment costs for the various stimulation-regimens were calculated and clinical pregnancy rates associated with each gonadotrophin assessed.

Results. According to the DIR-database 105.000 IVF-therapies were performed in Germany in 2003. Recombinant FSH was used for stimulation in the majority of cases (70%) compared with only 30% of cases in which urinary HMG was chosen. A long protocol was used for stimulation in 60% of all cases while 30% followed an antagonist-protocol. Other stimulation protocols accounted for 10% of all cases.

A statistical average of 25 vials, each containing 75 I.U. of gonadotrophins, was used per stimulation-cycle. Drug-costs for stimulation treatment amounted to a total of 700 Euros when urinary HMG was used (at a price of 28 Euro per 75 I.U. vial), compared with total costs of 1000 Euros for recombinant gonadotrophins (at a price of 40 Euro per vial).

Pregnancy rates after embryo-transfer and IVF showed a statistical average of 29% when urinary gonadotrophins were used compared to 28% for recombinant gonadotrophins. Clinical pregnancy rates after ICSI-treatment and embryo transfer gave comparable results.

During the year 2003 in Germany the total costs associated with stimulation treatment for assisted reproduction amounted to 73.5 million Euros for recombinant gonadotrophins and 22 million Euros for urinary gonadotrophins.

Conclusion. Our retrospective analysis of data from the German IVF-registry for the year 2003 shows that in a majority of 70% of all cases recombinant gonadotrophins were used for stimulation treatment compared with only 30% of cases in which urinary HMG was the drug of choice. This distribution is also reflected in the treatment costs with 73.5 million Euro spent for recombinant gonadotrophins in 2003 compared to 22 million Euro for urinary HMG. With an average cost of 700 Euro per stimulation-cycle for urinary gonadotrophins versus 1000 Euro for the recombinant gonadotrophins there is a considerable price-difference between the treatment options.

Starting in January of 2004 patients have had to carry 50% of all costs associated with IVF-treatment which has led to a sharp decrease in the number of assisted reproduction techniques performed (more than 50% reduction compared to previous years). Furthermore there is a growing tendency among patients to prefer urinary gonadotrophins to the recombinant form of the drug. This development appears to be reasonable since both the safety profile and the pregnancy success rate after embryo transfer are quite similar when urinary gonadotrophins are used whereas the costs are about 30% lower compared to recombinant HMG (700 Euro for urinary vs. 1000 Euro for recombinant gonadotrophins).

In contrast to the years before the health care reform when the full costs of assisted reproduction techniques were covered by insurance companies there is now a growing trend towards more cost consciousness among patients who since then have to carry a significant portion of the treatment costs.