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**Brief overview of Belrap reports 2012**

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## **Brief Overview of Belrap reports 2012**

Mandatory registration for all IVF cycles and all non-IVF cycles stimulated with gonadotropins (ovulation induction or IUI), and voluntary registration of ovulation induction or IUI cycles without gonadotropins are presented.

About 80% percent of patients treated were covered by social security, except for IUI cycles where 33% were not, which could be explained by cross border patients requesting donor sperm.

### IVF cycles

A total of 33,150 IVF cycles were performed in 2012, with 63.5% own fresh cycles, 30% own embryo cryo cycles and 6.5% other cycles. The majority of the latter were related to egg donation and only 0.04% involved surrogacy. There are 14,729 fresh IVF cycles performed in patients with social security, generating reimbursement and this number is a little bit less than last year.

Results were first presented for women undergoing a fresh own cycle. After cycle initiation, 90% of the cycles led to an oocyte retrieval, 77.5% to an embryo transfer and 10% of initiated cycles were cancelled. This is more than the percentage on which the fixed price for gonadotrophin reimbursement was calculated (7%).

Indications for IVF remained stable over time and a male factor was involved in >50% of cases.

The mean and median female age were 34.4 and 35.0 years, respectively. The proportion of cycles using pituitary inhibition with an antagonist increased over the years up to 44.7%. In 47.3% of cases a GnRH agonist was used.

The mean total dose of gonadotropins administered per cycle was 2,224.3 IU.

The predominant fertilization method remained ICSI (70.7% only ICSI and 7.1% mixed IVF + ICSI). The mean number of oocytes retrieved during the pick-up was 8.7, with 7.4 inseminated, 5.0 fertilized, and the mean numbers of transferred and cryopreserved embryos were 1.4 and 1.3, respectively. The number of transferred embryos per cycle rank and patient's age reflects the application of the regulation on IVF/ICSI cycles. The majority of embryo transfers were performed on day 3 after oocyte retrieval. Blastocyst stage embryos were transferred in 19% of the cycles. The overall implantation rate (defined as the presence of a gestational sac per transferred embryo) was 21%, and reached 29% in the youngest patients.

Live birth rates per transfer, reported per age category, were 27.5%, 19.4%, 8.8% and 5.4%, for patients of <36, 36-39, 40-42 and ≥43 years of age, respectively.

The evolution of single and multiple deliveries is stable since 2003, and mirrors the evolution of the number of transferred embryos. IVF/ICSI treatments led to 10.2% twins and 0.3% triplets, corresponding to the expected figures of such transfer policy.

Regarding own embryo cryo cycles, corresponding figures of live birth rates per transfer by age category were 21.2%, 17.8%, 11.1% and 7.7%. Twin and triplet rates were not higher for thawed own embryos transfers (9.6% and 0.2%, respectively) than for own fresh cycles.

In 560 cycles fresh donor eggs were used, leading to a live birth rate per transfer of 20.4% (all age categories). The twin rates for oocyte recipients (14.8%) was slightly higher than in IVF cycles where own oocytes were used. This can be explained by the transfer policy being linked to the age of women receiving the embryo and not to the age of the oocyte donor.

### Non-IVF cycles

A total of 20,978 cycles were reported, with 92.4% IUI and 7.6% ovulation induction cycles. Gonadotropins were used in more than 20% of the cycles with a mean administered dose of 813 IU. The mean and median female age were 32.7 and 33.0 years respectively.

Donor sperm was used in 38.1% of the IUI cycles.

Success rates were decreasing with age with a clinical pregnancy rate of 12.9% and a delivery rate of 7.1% per IUI cycle (all ages included), the lowest delivery rates being 0.5% for women older than 43 years and 3.7% in the 40-42 age category. Results showed similar figures when cycles with donor sperm were analyzed separately. Only 4.9% of the deliveries were reported as twins.

A total of 1,602 ovulation induction cycles (without IUI) were initiated. The mean administered dose of gonadotropins was 977 IU per cycle. Clinical pregnancy and delivery rates per timed intercourse were 17.2% and 10.3%, respectively. The rates of multiple pregnancies were low with 7.1% twins and 0.8% triplets.