

European pregnancy rates from IVF and ICSI 'appear to have reached a peak'

June 25 2019

The latest annual data collected by ESHRE from European national registries (for 2016) show another rise in the cumulative use of IVF in the treatment of infertility, although success rates after IVF or ICSI appear to have reached a peak, with pregnancy rates per started treatment calculated at 27.1% after IVF and 24.3% after ICSI. The figures, although indicative of a slight decline in pregnancy rate, continue a recent trend of conventional IVF cycles performing better than ICSI.

The one treatment in which [cycle](#) numbers and success rates continue to rise is in frozen embryo cycles in which [embryos](#) cryopreserved in storage are thawed for transfer in a later cycle. Pregnancy rate per started treatment in 2016 was 30.5%, an increase over 2015 of 1.3%. Around one half of the total European cycles analysed by ESHRE were transfers from frozen embryos, also an increase over 2015. Dr. Christian de Geyter, chair of ESHRE's European IVF Monitoring Consortium, said the number of frozen embryo transfers was likely to increase as more and more clinics adopt a single embryo transfer policy (and thus store more embryos) or take up 'freeze-all' strategies to avoid embryo transfer in an initial stimulated cycle.

In Europe, Spain remains the most active country in assisted reproduction, with a record a record 140,909 treatment cycles performed. Spain continues to set the pace ahead of Russia (121,235 cycles), France (104,733) and Germany (969,226). The cycles monitored by ESHRE include treatments with IVF, ICSI, intrauterine insemination

and [egg donation](#).

The report covers a total of more than 800,000 treatment cycles performed in 2016, with 165,000 babies born—and represents the largest and most accurate snapshot of assisted reproduction in Europe. Dr. de Geyter will present the results today in Vienna at the 35th Annual Meeting of ESHRE.

He estimates that around 84% of all European assisted reproduction fertility treatments are now included in the ESHRE monitoring programme—although this year (for 2016) without their inclusion of any data so far from the UK, which usually performs around 60,000 treatments a year.

Among other findings:

- Clinics in Europe continue to favour ICSI over IVF by around two-to-one (359,858 ICSI, 128,626 IVF cycles), a pattern now evident throughout the world. ICSI was developed in the early 1990s as a specific treatment for male infertility (low sperm counts, poor sperm quality) but is now clearly used for fertilisation in non-male cases.
- Pregnancy rates are higher with five-day old embryos (blastocysts) than with three-day, another widely favoured strategy.
- Pregnancy rates from egg donation continue to rise (now at about 50%), making egg donation the most successful treatment available.
- The rate of twin [pregnancy](#) continues to decline in Europe, in 2016 to around 15%. Similarly, the rate of single embryo transfers continues to rise—from 11% in 1997 to above 40% in 2016.

"Success rates have stabilised," said Dr. de Geyter, 'although outcome in egg donation and with use of frozen embryos is still moving upwards. The biggest upwards movement, however, is from treatments with frozen [eggs](#), which have been revolutionised by the widespread introduction of vitrification." Twenty-two countries reported activity in egg donation treatment with frozen banked eggs (11,196 cycles), achieving a [pregnancy rate](#) of 43.7% and delivery rate of 29.9%.

Dr. de Geyter also noted that the availability of assisted reproduction treatment remains very patchy in Europe, with Denmark and Belgium each offering more than 2500 [treatment](#) cycles per million population, while others (such as Austria and Italy) offer considerably fewer. A study calculated that the global need for advanced fertility treatments was around 1500 cycles per million population per year. "Only a minority of European countries meet this need," said De Geyter.

More information: Abstract 0-145, Tuesday 25 June 2019: European IVF monitoring of ART

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