

Publication

Assisted reproductive technology in Europe, 2010: results generated from European registers by ESHRE

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 4378800**Author(s)** Kupka, Markus S.; Ferraretti, Anna Pia; de Mouzon, Jacques; Erb, Karin; D'Hooghe, Thomas; Castilla, J. A.; Calhaz-Jorge, C.; De Geyter, Christian; Goossens, Veerle; European Ivf-Monitoring Consortium for the European Society of H.; Embryology ESHRE,**Author(s) at UniBasel** [de Geyter, Christian M.H.R.](#) ;**Year** 2014**Title** Assisted reproductive technology in Europe, 2010: results generated from European registers by ESHRE**Journal** Human Reproduction**Volume** 29**Number** 10**Pages / Article-Number** 2099-113**Keywords** Adult; Age Factors; Europe; Female; Humans; Infertility/*therapy; Middle Aged; Pregnancy; Pregnancy Rate; *Registries; Reproductive Techniques, Assisted/*trends/utilization; Retrospective Studies; *Treatment Outcome; Icsi; Ivf; intrauterine insemination; registry**Mesh terms** Adult; Age Factors; Europe; Female; Humans; Infertility, therapy; Middle Aged; Pregnancy; Pregnancy Rate; Registries; Reproductive Techniques, Assisted, trends; Retrospective Studies; Treatment Outcome

STUDY QUESTION: The 14th European IVF–monitoring (EIM) report presents the results of medically assisted reproduction treatments including assisted reproductive technology (ART) cycles and intrauterine insemination (IUI) cycles initiated in Europe during 2010: are there changes in the trends compared with previous years? **SUMMARY ANSWER:** Despite some fluctuations in the number of countries reporting, the overall number of ART cycles has continued to increase year by year, and while pregnancy rates in 2010 remained similar to those reported in 2009, the number of transfers with multiple embryos (three or more) further declined. **WHAT IS KNOWN ALREADY:** Since 1997, ART data in Europe have been collected and reported in 13 manuscripts, published in Human Reproduction. **STUDY DESIGN, SIZE, DURATION:** Retrospective collection of European ART data by the EIM Consortium for ESHRE; data were collected from cycles started between 1st January and 31st December 2010 by the National Registries of individual European countries, or on a voluntary basis by personal information for European countries without a national registry. **PARTICIPANTS/MATERIALS SETTING, METHODS:** Out of 31 countries, 991 clinics reported 550 296 ART treatment cycles: IVF (125 994), ICSI (272 771), frozen embryo replacement (FER, 114 593), egg donation (ED, 25 187), in vitro maturation (493), preimplantation genetic diagnosis/preimplantation genetic screening (6399) and frozen oocyte replacements (4859). European data on IUI using husband/partner's semen (IUI-H) or donor semen (IUI-D) were reported from 22 and 19 countries, respectively. A total of 176 512 IUI-H (+8.4% compared with 2009) and 38 124 IUI-D (+30.4% compared with 2009) cycles were included. **MAIN RESULTS AND THE ROLE OF CHANCE:** In 16 countries where all clinics reported to the national ART registry, a total of 267 120 ART cycles were performed in a population of 219 million inhabitants, corresponding to 1221 cycles per million inhabitants. For IVF, the clinical pregnancy rates per aspiration and per transfer increased to 29.2 and 33.2%, respectively, and for ICSI, the corresponding rates also increased to 28.8 and 32.0%, when compared with the rates of 2009. In FER cycles, the pregnancy rate per thawing was 20.3%; in

ED cycles the pregnancy rate per fresh transfer was 47.4% and per thawed transfer 33.3%. The delivery rate after IUI-H was 8.9 and 13.8% after IUI-D. In IVF and ICSI cycles, one, two, three and four or more embryos were transferred in 25.7, 56.7, 16.1 and 1.5%, respectively. The proportions of singleton, twin and triplet deliveries after IVF and ICSI (combined) were 79.4, 19.6 and 1.0%, respectively, resulting in a total multiple delivery rate of 20.6% compared with 20.2% in 2009, 21.7% in 2008, 22.3% in 2007, 20.8% in 2006. In FER cycles, the multiple delivery rate was 12.8% (12.5% twins and 0.3% triplets). Twin and triplet delivery rates associated with IUI cycles were 9.6/0.5 and 8.5/0.2%, following treatment with husband and donor semen, respectively. LIMITATIONS, REASONS FOR CAUTION: The method of reporting is not standardized in Europe but varies among countries. Furthermore registries from a number of countries have been unable to provide some of the relevant data such as initiated cycles and deliveries. Therefore, results should be interpreted with caution. WIDER IMPLICATIONS OF THE FINDINGS: The 14th ESHRE report on ART and IUI treatments shows a continuing expansion of the number of ART treatment cycles in Europe, with more than half a million of cycles reported in 2010. The use of ICSI may have reached a plateau. When compared with 2009/2008, pregnancy and (multiple) delivery rates after IVF and ICSI remained relatively stable. The number of multiple embryo transfers (three or more embryos) has shown a decline. STUDY FUNDING/COMPETING INTERESTS: The study has no external funding; all costs are covered by ESHRE. There are no competing interests.

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