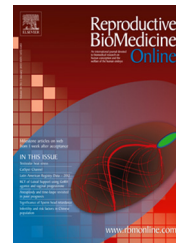




www.sciencedirect.com
www.rbmonline.com



ARTICLE

Assisted reproductive technologies in Latin America: the Latin American Registry, 2012




Fernando Zegers-Hochschild ^{a,b,*}, Juan Enrique Schwarze ^c,
Javier A Crosby ^a, Carolina Musri ^a, Maria do Carmo Borges de Souza ^d

^a Unit of Reproductive Medicine, Clínica las Condes, Lo Fontecilla 4412, Santiago, Chile; ^b Program of Ethics and Public Policies in Human Reproduction, University Diego Portales, Ejercito 260, Santiago, Chile; ^c Clínica Monteblanco, Camino a Farellones 17780, Santiago, Chile; ^d Fertipraxis- Centro de Reprodução Humana, Av. das Américas, 4.666 grupos 312/313, Rio de Janeiro, Brasil

* Corresponding author. E-mail address: fzegers@clc.cl (F Zegers-Hochschild).



Fernando Zegers-Hochschild is Professor and Director of the Program of Ethics and Public Policies in Human Reproduction at the University Diego Portales and member of the Division of Reproductive Medicine at Clínica las Condes. Recognized as *Doctor Honoris Causa* by the University of Antofagasta, Chile, he is founder and responsible of the Latin American Registry of ART and Vice-Chairman of the International Committee for Monitoring ART (ICMART). He is a member of the FIGO Committee for Reproductive Medicine, and fellow of the American College of Obstetrics and Gynecology. Dr. Zegers-Hochschild has authored over 120 scientific articles and book chapters.

Abstract Multinational data on assisted reproduction technologies were collected from 155 institutions in 14 Latin American countries during 2012. Case-by-case data included 47,326 assisted reproduction technology cycles covering over 80% of cycles carried out in Latin America. Treatments included IVF, intracytoplasmic sperm injection (ICSI), frozen embryo transfers, oocyte donations and fertility preservation. Embryo transfer and IVF-ICSI was carried out in 39% of women aged 35–39 years and 31% of women aged 40 years or over. Delivery rate per oocyte retrieval was 20.9% for ICSI and 26.5% for IVF. Multiple births comprised 20.6% twins and 1.2% triplets and over. In oocyte donations, twins reached 27.8% and triplets and over 2.4%. Pre-term births in singletons were 14%. The relative risk of prematurity increased by 4.30 (95% CI 4.1 to 4.6) in twins and 43.8 (95% CI 28.5 to 67.4) in triplets and higher. Perinatal mortality increased from 25.2 per thousand in singletons to 44.4 in twins and 80.7 in triplets and over. Elective single embryo transfer was carried out in only 1.4%, of cycles, with a delivery rate of 30% in women 34 years or younger, and should be considered the way forward provided access is facilitated with public funding. 

© 2014 Reproductive Healthcare Ltd. Published by Elsevier Ltd. All rights reserved.

KEYWORDS: assisted reproductive technologies, epidemiology, IVF, Latin America, multiple births, outcomes, registry

Introduction

The Latin American Registry of Assisted Reproduction (RLA) was established in 1990, as the first multinational and regional registry collecting data on assisted reproduction technologies. For the first 20 years, summary data were obtained electronically via a web page from every participating institution belonging to 12 countries in the region. Since 2010, new software has been developed and implemented, allowing the collection of individualized case-by-case data from every treatment cycle. Data collection is, therefore, recorded individually starting from ovarian stimulation until birth or spontaneous abortion. Today, individualized data is obtained from assisted reproduction technology treatments carried out in 155 institutions from 14 countries, covering more than 80% of assisted reproduction technology cycles carried out in the region. This report corresponds to the 24th edition of RLA. Reports produced between 1990 and 1998 are available in printed format; those published between 1999 and 2009 are available as PDF files, which can be freely downloaded from the web page of the Latin American Network of Assisted Reproduction (REDLARA) at <http://www.redlara.com>. Since 2010 onwards, annual reports have been published both in the *Journal Brasileiro de Reprodução Assistida* (Assisted Reproduction, the official journal of REDLARA), and online at <http://www.redlara.com>. This is the first report published simultaneously in *Reproductive BioMedicine Online*.

The main objectives of RLA have been to disseminate information on assisted reproduction technology procedures carried out in Latin America; monitor outcomes, as well as trends on safety and efficacy among centres and countries; empower infertile couples in their capacity to evaluate risks and benefits when requesting assisted reproduction technology treatments; and develop a robust database for epidemiological studies. In this report, information is presented on availability, effectiveness, and perinatal outcomes of assisted reproduction technology treatment carried out during 2012, and babies born up to September 2013. It is also our aim to describe regional trends on how assisted reproduction technology is practised in the region, including the number of embryos transferred, multiple births and its effect on pre-term births and perinatal mortality.

Materials and methods

Data collection

One hundred and fifty-five centres from 14 countries (Supplementary Table S1) reported 47,326 assisted reproduction technology procedures started between January and December 2012. Treatments include in IVF, intracytoplasmic sperm injection (ICSI), oocyte donation (both fresh and frozen), frozen embryo transfer (FET), and pre-implantation genetic diagnosis and screening, registered together as PGD. As part of the accreditation programme, all participating institutions agree to have their data registered and published by the RLA. Given it is a multinational registry, no consent was required.

Data validation

Information provided by each centre is checked by the RLA central office for inconsistency before inclusion in the database. Any error or discrepancy not identified by the computer program is discussed with the centre, and the data are rectified if necessary.

Limitations of data collection

Some centres lack complete description of events surrounding deliveries, such as weight of newborns, gestational age at delivery, perinatal outcome, or both. In fact, in 1530 deliveries (23%), no data were available on the weight of newborns. This lack of information, although small, is especially prevalent in assisted reproduction technology institutions that are not associated with obstetric units.

Another potential limitation results from the fact that the inclusion of new cases, at the very start of a cycle, is not obligatory as in national registries, which are sometimes enforced by an independent body. Although we define an assisted reproduction technology cycle as initiated when ovarian stimulation is provided, in the RLA, new cases can be incorporated at the start of ovarian stimulation or at any time after that.

Centres need to be certified by an independent body (accreditation programme) formed of a biologist and a clinician from a different country before their data can be included in the RLA. This is indeed a restriction for many centres that provide assisted reproduction technology treatments in the region. Although the reasons for not reporting are numerous, we estimate that a proportion of them refrain from reporting because their facilities would not pass the accreditation programme. Nevertheless, today, RLA has complete data from over 80% of procedures carried out in the region.

Statistical analysis

Chi square test was used to analyse independence of categorical variables. When comparing two outcomes, the risk ratio (RR), and its corresponding 95% confidence interval (95% CI) are presented. When multiple variable analyses were conducted (i.e. logistic regression or lineal regression), the dependent variables were considered significant if $P < 0.05$.

Results

Participating centres

One hundred and fifty-five centres belonging to 14 reported their assisted reproduction technology procedures carried out during 2012. They included 31,857 initiated autologous fresh IVF-ICSI cycles; 10,073 FETs (both autologous and heterologous), 5396 embryo transfers with donated oocytes, and 1764 initiated cycles for fertility preservation.

Access to assisted reproduction technology procedures, defined as the sum of IVF-ICSI initiated cycles, FET and oocyte

Download English Version:

<https://daneshyari.com/en/article/6188934>

Download Persian Version:

<https://daneshyari.com/article/6188934>

[Daneshyari.com](https://daneshyari.com)