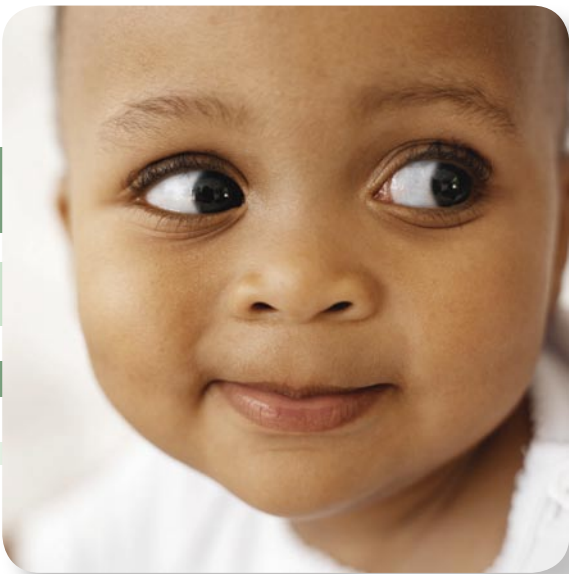


SARA 2009



**SOUTH AFRICAN REGISTER OF
ASSISTED REPRODUCTIVE TECHNIQUES**



SASREG

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INTRODUCTION



Dear Colleagues

SASREG made great progress over the last 3 years with a number of projects. One of these projects is national anonymous ART Data monitoring, under the leadership of Prof Silke Dyer.

The project was launched in 2007 and has been pursued with diligence and perseverance. With the support of local and international role players SARA, the South African Register of Assisted Reproductive Techniques, has been launched. We can now congratulate Prof Dyer and the team involved in ART Data Monitoring on what has been achieved. The 1st report of SARA presenting data from 12 ART units is an important event in the history of ART in our country. We anticipate that patients, ART clinics and the public will all benefit from the information which has been made available.

The international community respects the South African medical training and health care workers, but as far as ART data monitoring was concerned, we were lagging behind. Now we are aligned with international standards through goal setting by the SASREG committee.

The data obtained compare very well with the international community's data and we want to encourage the clinics involved, and those not yet on board to continue assisting with the efforts of the SASREG committee.

Congratulations on this team effort and thank you to everybody who has contributed.

Prof TF Kruger

President: SASREG, 2008 - 2011



Dear Colleagues

It is a great privilege to present to you the 1st report of the South African Registry of ART. The report comprises the pooled data from 12 ART units providing for the first time nationally representative information on the overall efficacy and coverage of ART. It is a direct reflection of the commitment of participating centres to work together in the best interest of our patients and in the interest of advancing the standard of reproductive medicine in our country.

At a national level the report is of interest to many stakeholders including patients, the general public, health care planners, health care funders and ART units themselves. At an international level it signals South Africa's arrival in the ranks of a large number of countries around the world that participate in regional and global ART monitoring.

The information collected for this 1st report has been kept purposefully brief. Our focus was on width rather than depth of data. We considered it more important that as many units as possible participated than to collect more complex information from fewer centres. This approach was successful with the participation of 12 units in this 1st call for data. A few units that were unable to submit their 2009 data for operational reasons have already indicated their intention to participate in the 2010 data collection, and I have no doubt that others will join in the future.

Having successfully established a SARA network, we are planning to collect more in depth data in 2012 on the clinical activity of our current year. The 2012 call for data will also activate our on-line reporting programme that we developed over the last 18 months (<http://www.rla-online.cl/sara>).

This report would not have been possible without the work and support of many people. I would like to thank the clinical and laboratory directors of the participating ART units and their staff for their work and for their willingness to submit and share valuable information. I am grateful for the support and ongoing encouragement of the SASREG committee with special input received from our chairman Professor Thinus Kruger, and the members of the ART Monitoring sub-committee, Dr Mohamed Cassim, Dr Paul Dalmeyer and Dr Herman Netshidzivhani. Mr Dudley Randall and Ms Virosha Basdeo from the SASREG secretariat, representing Turner's Conferences, must be thanked for their expert management of data anonymity and safety and for pooling the information received. My sincere gratitude goes to Dr Fernando Zegers-Hochschild, Mrs Veronica Galdames and other members of the Latin American Register of ART for their expert input and selfless assistance in helping us to develop the SARA software programme. Ferring and Merck-Serono deserve acknowledgment for providing financial support for meetings to discuss ART data monitoring.

Last but not least I wish to thank all women and men who put their trust into our clinical teams and ART.

A/Prof Silke Dyer

Chair: SASREG sub-committee ART Data Monitoring

GENERAL

COMMENTS

- The data presented on page 5 and 9 were reported by 12 centres including 1 centre reporting 6 months data only. The data presented on page 10-15 came from 9 centres including one centre reporting 6 months data only.
- If both IVF and ICSI were done in one cycle the cycle was captured according to which embryo(s) were transferred; if 'mixed' embryos were transferred (ie embryos from IVF and ICSI), the cycle was captured under ICSI.
- Embryo Transfers Only fresh embryo transfers were captured
- Egg Donations Aspirations and transfers were entered according to the age of the DONOR not the recipient.

ABBREVIATIONS

- CPR Clinical Pregnancy Rate
- ET Embryo Transfer
- IVF In Vitro Fertilisation
- ICSI Intracytoplasmic Sperm Injection

DEFINITIONS

- Aspirations The number of cycles resulting in attempted oocyte retrieval irrespective of whether oocytes were successfully retrieved or not.
- Clinical Pregnancy Any pregnancy with clinical products of conception (ectopic, miscarriage, termination, birth) or ultrasound evidence of pregnancy (irrespective of presence of fetal heart); includes clinical miscarriage, ectopic pregnancy, missed abortion, viable ongoing pregnancy, birth (live or still birth); excludes biochemical pregnancy.

Note: all recorded pregnancies are clinical pregnancies only.

PARTICIPATING ART CENTRES

DISTRIBUTION OF CENTRES ACCORDING TO NUMBER OF CYCLES	
No. of Aspirations per Year	No. of Centres
< 50	1
50 - 100	1
101 - 200	2
201 - 350	3
351 - 500	1
> 500	4

(12 Centres reporting including 1 Centre reporting 6 months data only)

SARA: PARTICIPATING ART CENTRES

CAPE FERTILITY CLINIC

209 Library Square, 1 Wilderness Road, Claremont 7708 - Cape Town

Phone 021 674 2088

Fax 021 671 2709

Email info@capefertilityclinic.co.za

Website www.capefertilityclinic.co.za

Clinicians Dr Paul le Roux, Dr Sulaiman Heylen, Dr Klaus Wiswedel, Dr Saleema Nosarka, Dr Razak Dhansay

Embryologists Ms Kimenthra Raja, Ms Gloria Raidani, Ms Zikhona Mvinjelwa, Ms Zuleigha Williams

Nurses Sr Karin Schwenke, Sr Heidi Clark, Sr Inari Mulke, Sr Lorean Swartbooi, Sr Liz Carter, Sr Di Davids, Sr Florence Rodrigues

Counsellors Ms L van der Westhuizen

C.A.R.E CLINIC

21 Jan Hofmeyer Road, Westville, 3630 - KwaZulu Natal

Phone 031 267 7920

Fax 031 267 7928

Email careoffice@ion.za.net

Website www.careclinic.com

Clinicians Dr Anil Ramdeo

Embryologists Mr Kinnon Naidoo, Ms Hughlene Baker

Nurses Sr Cheryl Harilall, Sr Theodora Nzama

Counsellors Ms Humaira Muniff

DRS AEVITAS INCORPORATED

Vincent Pallotti Hospital, Park Road, Pinelands - Cape Town

Phone 021 531 6999

Fax 021 531 7919

Email medici@aevitas.co.za

Website www.aevitas.co.za

Clinicians Dr JP Van der Merwe, Prof TF Kruger, Prof TI Siebert

Embryologists Dr ML Windt, Mr GM Tinney

Nurses Sr S Botha, Sr T Fourie

DURBAN FERTILITY CLINIC

607 Kingsway Rd, Kingsway Hospital, Amanzimtoti, 4125 - KwaZulu Natal

Phone 031 904 3980

Fax 031 904 3980

Email sags@intekom.co.za, mahesh@vodamail.co.za, neville@durbanfertilityclinic.co.za

Clinicians Dr Sagie Naidu, Dr Mahesh Bhana

Embryologists Mr Neville S Moodley

GENESIS REPRODUCTIVE CENTRE

Suite G15 Kloof Medi-Clinic, 511 Jochemus Street, Erasmus Kloof Ext 3, Pretoria - Gauteng

Phone 012 367 4378

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Email lourensjt@mweb.co.za, drabri@webmail.co.za

Clinicians Dr Abri de Bruin, Dr Johan Pentz, Dr Georg Hogewind

Embryologists Mr J Lourens

SARA: PARTICIPATING ART CENTRES

MEDFEM CLINIC

Corner Peter Place and Nursery Road, 1st Floor, Bryanston - Gauteng

Phone 011 540 3440

Fax 011 4631875 / 0866 521 977

Email ivflab@medfem.co.za

Website www.medfem.co.za

Clinicians Dr Van Rensburg, Dr Van Schouwenburg, Dr Rodrigues

Embryologists Dr Aldo Esterhuizen, Ms Edolene Bosman, Ms Vicky Wolf, Ms Lizelle Griessel

Nurses Sr Pam, Sr Heather, Sr Krina, Sr Hanlie

Counsellors Dr Mandy Wolf (Clinical Psychologist)

PARKLANE FERTILITY CENTRE

Cnr. Junction Ave & Parklane, Parktown, 2193 - Gauteng

Phone 011 480 4143

Fax 011 480 4316

Email sacide@parklanefertility.co.za, drherman@parklanefertility.co.za

Website www.parklanefertilitycentre.co.za

Clinicians Dr NH Netshidvhani

Embryologists Ms Elsie SA McDonald, Ms Sacide Karadasli

Nurses Sr Dorren Donny LESEKA

PORT ELIZABETH INFERTILITY UNIT

40A Park Drive, Central Port Elizabeth - Eastern Cape

Phone 041 373 0771

Fax 041 374 2006

Email info@fertilityunit.com

Website www.fertilityunit.com

Clinicians Dr P Dalmeyer, Dr D Botha

Embryologists Ms Michelle Rijdsdijk, Mr Wilhelm Schoeman

Nurses Sr Roneh Jubber

Counsellors Ms Lynette Dean, Ms Robin Farrington

PRETORIA FERTILITY CLINIC

Suite M19 Pretoria East Hospital, Pretoria - Gauteng

Phone 012 998 8854/5

Fax 012 998 8856

Email info@ptafertilitycen.co.za

Website www.ptafertility.co.za

Clinicians Dr MA Trouw

Embryologists Ms Elmarie Pronslou, Ms Linmarié Venter

Nurses Sr Lizette White

REPRODUCTIVE MEDICINE UNIT

Department of Obstetrics & Gynaecology,

Groote Schuur Hospital and Faculty of Health Sciences, UCT

Maternity Building F Floor, Observatory, 7925 - Western Cape

Phone 021 404 6027/8

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Email obs-infertility@uct.ac.za

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Embryologists Mrs M Vienings, Ms L Cindi, Ms B Wager

SARA: PARTICIPATING ART CENTRES

SANDTON FERTILITY CENTRE

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Phone 011 883 1776, 0861 442 211

Fax 011 7846886

Email info@sandtonfertility.com

Website www.sandtonfertility.com

Clinicians Dr GH Mohamed, Dr M Faesen, Dr R Patel

Embryologists Ms Kimenthra Raja

Nurses Sr Iris Dvids

Counsellors Miss T Moodley

VITALAB FERTILITY UNIT

Inner Circle, 159 Rivonia Road, Morningside, Sandton - Gauteng

Phone 011 911 4700

Fax 011 911 4744

Email stephanv@vitalab.com

Website www.vitalab.com

Clinicians Dr Stephan Volschenk & Partners, Dr MJ Jacobson, Dr L Gobetz

Embryologists Ms Jane Meintjies & Colleagues

Nurses Sr Anne Hacking & Colleagues

Counsellors Ms Bernice Lits, Ms Tanya Rubin

SUMMARY DATA

12 CENTRES REPORTING INCLUDING 1 CENTRE REPORTING 6 MONTHS DATA ONLY

SUMMARY DATA: IVF & ICSI

- Total no. aspirations: 4512
- Total no. fresh embryo transfers: 3872
- Total no. clinical pregnancies: 1303
- Clinical PR / aspiration: 28.9%
- Clinical PR / ET: 33.6%

NATIONAL COVERAGE: IVF & ICSI

4512 aspirations/ 49.9 million people¹/year
= 90 aspirations/ million people/year
= 6% of estimated optimal ART coverage

Estimated need for ART: 1500 cycles/million population/year²

ART COVERAGE: INTERNATIONAL COMPARISON

IVF CYCLES /MILLION POPULATION /YEAR	% OPTIMAL COVERAGE	COUNTRIES
< 15	< 1%	China, India, Egypt
< 150	< 10%	USA, Japan, Argentina, India, South Africa
< 500	< 33%	Many European countries
< 750	< 50%	Netherlands, Sweden, Denmark
> 1500	> 100%	Israel

Nachtigall 2006, Fertil Steril, 85(4):871

¹ According to Census 2001

² Collins, Hum Reprod Update 2002: 8, 265

IVF & ICSI: PROCEDURES & OUTCOME

9 CENTRES REPORTING INCLUDING 1 CENTRE REPORTING 6 MONTHS DATA ONLY

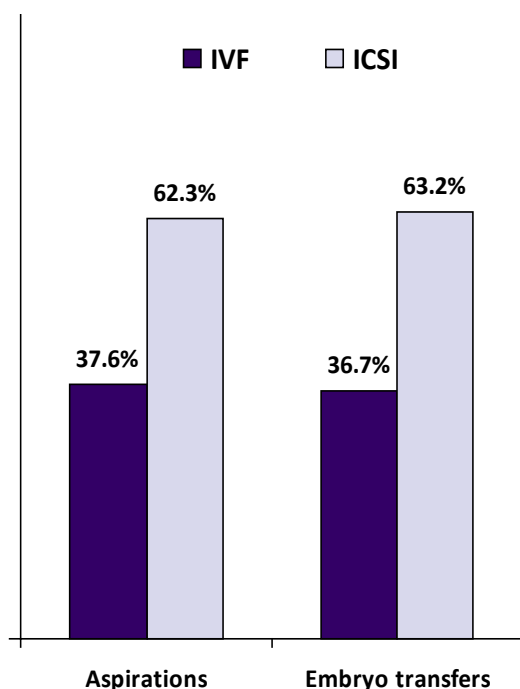
NUMBER OF PROCEDURES: IVF & ICSI

IVF

- Total no. aspirations: 1244
- Total no. fresh embryo transfers: 1034

ICSI

- Total no. aspirations: 2061
- Total no. fresh embryo transfers: 1779



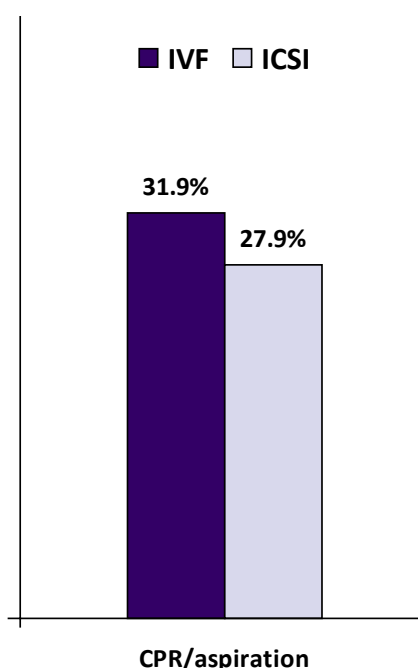
CLINICAL PREGNANCIES: IVF & ICSI

IVF

- Total no. clinical pregnancies: 398
- CPR/aspiration: 31.9%
- CPR/ET: 38.5%

ICSI

- Total no. clinical pregnancies: 576
- CPR/aspiration: 27.9%
- CPR/ET: 32.2%



CLINICAL PREGNANCY RATES: INTERNATIONAL COMPARISON

COUNTRY	IVF CPR/ASPIRATION (%)	ICSI CPR/ASPIRATION (%)	YEAR
South Africa	31.9	27.9	2009
Egypt	26.5	36.4	2002
Argentina	26.3	26.4	2002
Brazil	30.8	31.9	2002
Australia	25.5	25.6	2002
UK	25.8	27.5	2002
USA	41.9	39.4	2002

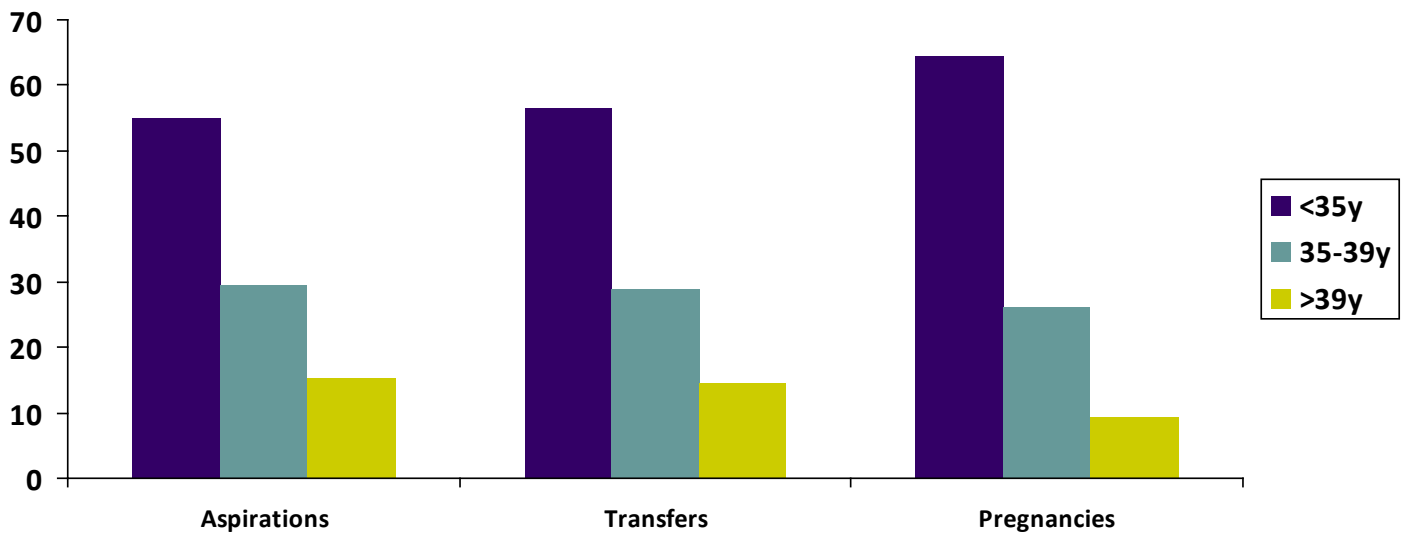
ICMART, Hum Reprod 2009, 24: 2310

IVF: AGE

IVF: AGE OF FEMALE PARTNER

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
Aspirations	686 (55.1)*	367 (29.5)	191 (15.3)	1244 (100)
Embryo Transfers	586 (56.6)	298 (28.8)	150 (14.5)	1034 (100)
Clinical Pregnancies	256 (64.3)	104 (26.1)	38 (9.5)	398 (100)

* Values in brackets are percentage distribution of all procedures and pregnancies per age category



IVF: AGE & OUTCOME

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
No. clinical pregnancies	256	104	38	398
CPR/aspiration	37.1%	28.3%	19.8%	
CPR/embryo transfer	43.7%	34.9%	25.3%	

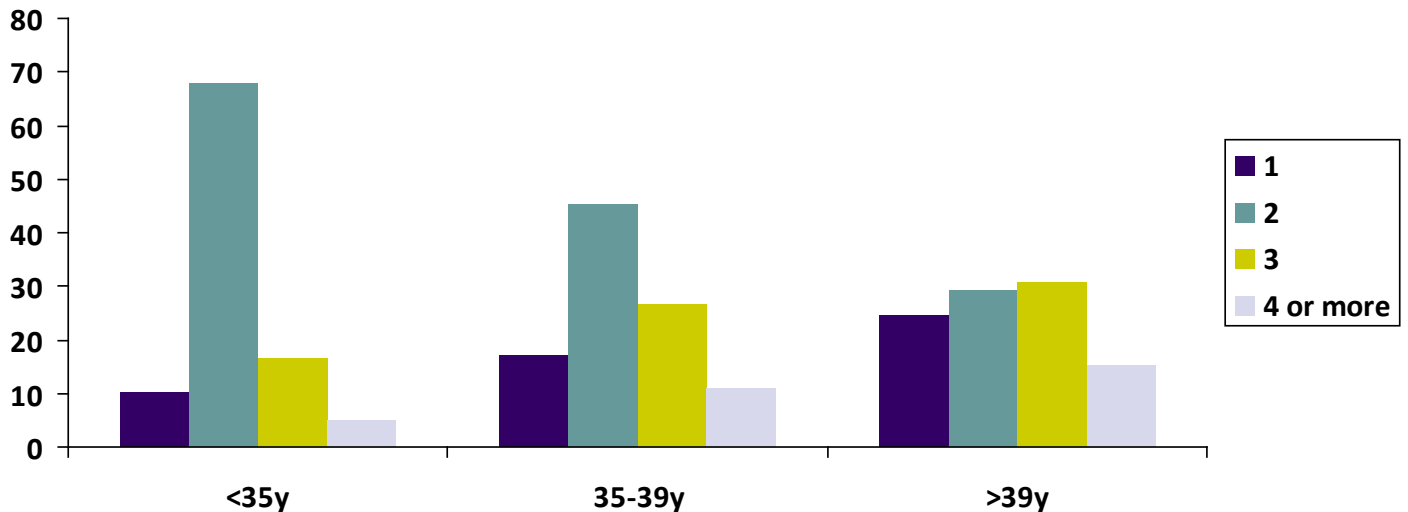
IVF: EMBRYO TRANSFERS

IVF: NO. TRANSFERS WITH 1, 2, 3, \geq 4 EMBRYOS OR BLASTOCYSTS

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS
Single embryo or blastocyst	60 (10.2)*	51 (17.1)	37 (24.6)
2 embryos or blastocysts	399 (68)	135 (45.3)	44 (29.3)
3 embryos or blastocysts	97 (16.5)	80 (26.8)	46 (30.6)
\geq 4 embryos or blastocysts	30 (5.1)	32 (10.7)	23 (15.3)
Total	586 (100)	298 (100)	150 (100)

*Values in brackets are percentages of different number embryo/blastocyst transfers in each age category

IVF: DISTRIBUTION OF TRANSFERS WITH DIFFERENT NUMBER EMBRYOS/BLASTOCYSTS BY AGE



Values are percent of transfers with different number of embryos/ blastocysts in each age category

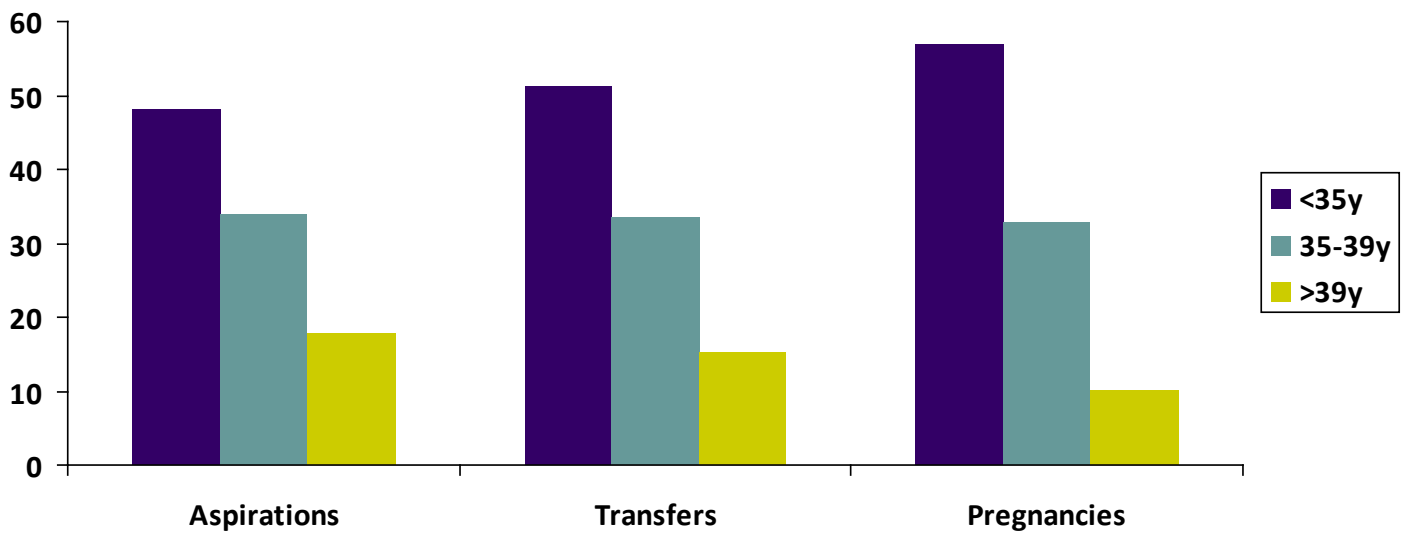
ICSI: AGE

ICSI: AGE OF FEMALE PARTNER

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
Aspirations	992 (48.1)	702 (34)	367 (17.8)	2061 (100)
Fresh Embryo Transfers	913 (51.3)	595 (33.4)	271 (15.2)	1779 (100)
Clinical Pregnancies	328 (56.9)	189 (32.8)	59 (10.2)	576 (100)

Values in brackets are percentage distribution of all procedures and pregnancies per age category

ICSI: AGE OF FEMALE PARTNER



ICSI: AGE & OUTCOME

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
No. clinical pregnancies	328	189	59	576
CPR/aspiration	33%	26.9%	16%	
CPR/embryo transfer	35.9%	31.8%	21.8%	

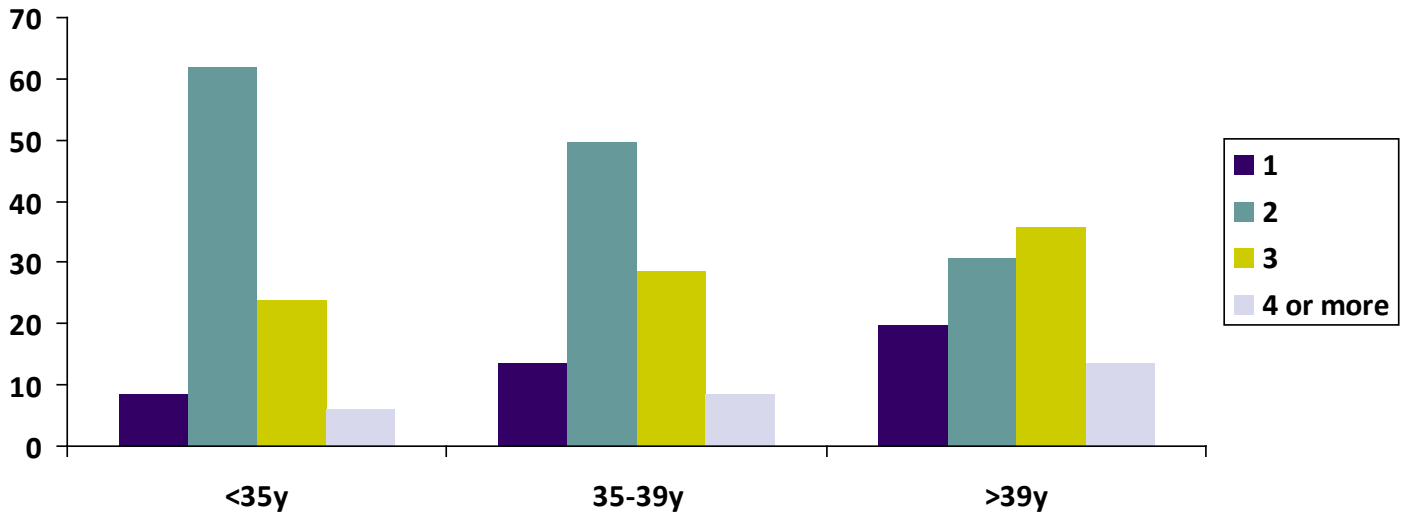
ICSI: EMBRYO TRANSFERS

ICSI: NO. TRANSFERS WITH 1, 2, 3, \geq 4 EMBRYOS OR BLASTOCYSTS

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS
Single embryo or blastocyst	76 (8.3)	81 (13.6)	54 (19.9)
2 embryos or blastocysts	565 (61.8)	295 (49.6)	83 (30.6)
3 embryos or blastocysts	218 (23.8)	169 (28.4)	97 (35.8)
\geq 4 embryos or blastocysts	54 (5.9)	50 (8.4)	37 (13.6)
Total	913 (100)	595 (100)	271 (100)

Values in brackets are percentages of different number embryo/blastocyst transfers in each age category

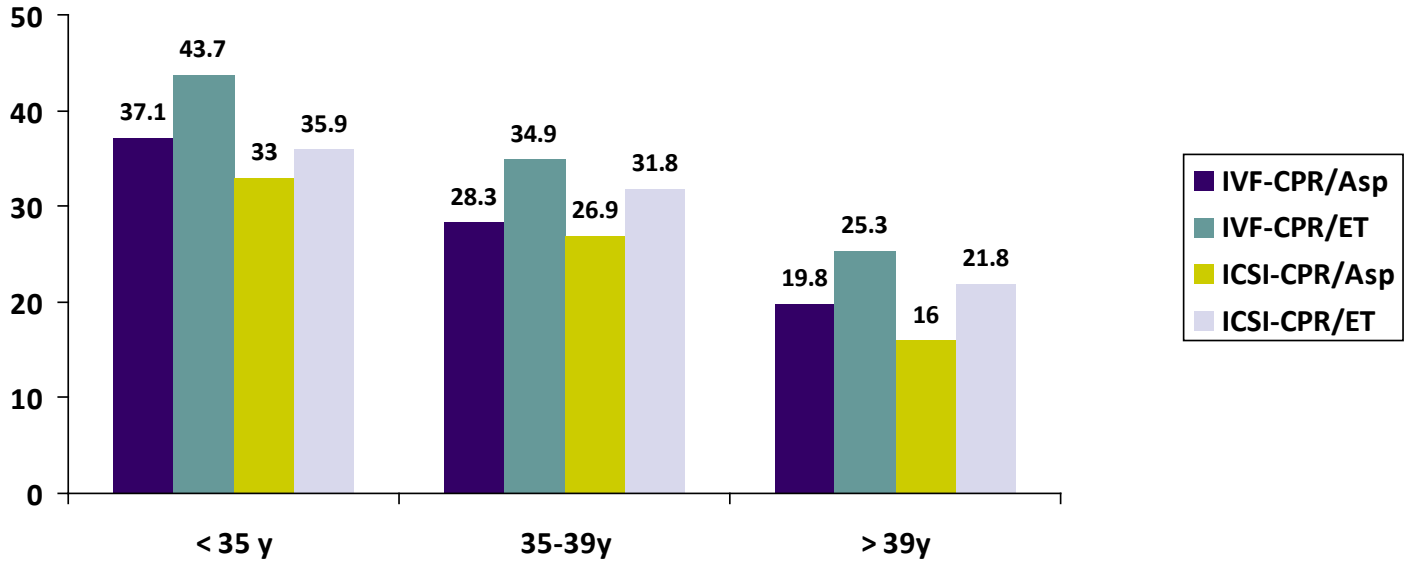
ICSI: DISTRIBUTION OF TRANSFERS WITH DIFFERENT NUMBER EMBRYOS/BLASTOCYSTS BY AGE



Values are percent of transfers with different number of embryos/ blastocysts in each age category

IVF & ICSI: OUTCOME BY AGE

IVF & ICSI: CLINICAL PREGNANCY RATE PER ASPIRATION AND PER EMBRYO TRANSFER BY AGE OF FEMALE PARTNER





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