The Age of ART cont....
The ART of Donation

Review and scope

- Growing trend to delay reproduction
- Decline of female fecundity with age
- Lack of public awareness
- Can ART compensate for the natural decline of fecundity with age?
- Current and future options for the maintenance of reproductive potential
- Donor issues

Delayed reproduction

What are the options?

Current options for treatment

- Preimplantation genetic diagnosis
- Assisted hatching
- Donor oocytes or embryos

Options for future preservation of reproductive potential

- Embryo cryopreservation
- Oocyte or Ovarian tissue freezing (reproductive insurance!)
- Stem cells
Use of donor oocytes/embryos with age

Oocyte donation

Altruistic – reimburse reasonable expenses

Risks to donor

- ovarian hyperstimulation
- surgery
- long term health ??

Issues of disclosure

Embryo donation

Excess frozen embryos

- completion of family
- relationship break down

Advantages of embryo vs oocyte donation

- minimal treatment for recipient
- lots of embryos available (92,541 by end of 2002)
- less cost

Disadvantages of embryo vs oocyte donation

- No genetic relationship
- FET cycles have lower pregnancy rates
- Low actual donation rates (6-10% couples will donate)
Embryo donation

Why not donate to infertile couple?
- concern about children brought up by strangers
- competition with children from union
- unwitting sibling marriage
- disclosure

Embryo Adoption?
- Child adoption rigorous screening
- embryo donation no screening of recipient
- what about donor? Age? medical / psychological?

Sperm donation

• First documented case of DI was in 1793
• Used in Australia since 1960s
• Treatment for:
  - Severe male factor infertility
  - Absence of a male partner (single women or lesbian couples)

Why donate sperm?
  • Altruistic – older, donate to help others
  • Financial – younger, motivated by financial gain

Sperm Bank PLC
Donor issues

Secrecy vs openness

- early days emphasis on total secrecy, few records kept

- Increasing trend towards openness (UN convention on Rights of Child 1989)

Donor Issues

Secrecy Vs Openness

Arguments against disclosure:

- Subject the child to social and psychological confusion
- Practical issues arise when donor views on the level of contact don’t match the child’s
- Protect the male/female partner from the stigma of infertility
- Protect the parent and child relationship
- Anonymity of donation is considered essential for maintenance of supply of donors (particularly sperm donors)

Donor Issues

Secrecy Vs Openness

Arguments against disclosure:

- The right of the child to know the truth about their origins
- Disclosure is an important part of open and honest communication with children
- Child’s right to access information about potential health problems and genetic heritage
Donor issues

In WA....

*Human Reproductive Technology Act 1991*
- Donor register including identifying information about donors, recipients and children born
- Before 2004 only a right by offspring to non-identifying information about donors
- In 2004 amendments to the Act allow offspring to access identifying info about donor at age 16

Issues of Disclosure amongst Sperm Donors and Recipients

Kate Godman  BHSc Honours 2004

Objectives
- To examine opinions of potential sperm donors to the release of identifying information to future donor offspring
- To examine opinions about disclosure from potential recipients
- To compare opinions and expectations between potential donors and recipients

Methodology
- Self administered questionnaire
- 44 potential sperm donors
  - aged 18-43 mean 30.7
  - Single 53%, Married 24%
  - % with children 24%
- 17 recipients
  - 8 Single women
  - 5 heterosexual couples
  - 4 lesbian women
Results

Motivation behind donating

To increase your number of descendants
Financial incentives
To help others in need

Identity known to recipients

Identity known to offspring

Considering becoming a donor if identity was known

Donor contact with future donor offspring

If you have a child from donor sperm are you going to inform him/her about the manner of their conception

Recipients
- Single 75%
- Lesbian 100%
- Heterosexual 80%
What to do with excess embryos?

In Australia ....
92,541 embryos in storage by end of 2002
# increasing by about 10,000 per year

In WA ..... 
- stored for 10 years
- at end of storage can allow to succumb, donate to infertile couple, donate to research

Donate to research?
Federal govt: Prohibition of Cloning Act and Research Involving Human Embryos Act (December 2002)

Donate to research?

<table>
<thead>
<tr>
<th>1: Couples' attitudes to donation of stored embryos</th>
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<tbody>
<tr>
<td>Willingness to donate embryos to</td>
<td>Yes</td>
</tr>
<tr>
<td>Another couple</td>
<td>16 (15%)</td>
</tr>
<tr>
<td>Research to improve IVF techniques</td>
<td>36 (23%)</td>
</tr>
<tr>
<td>Stem-cell research</td>
<td>34 (17%)</td>
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</tbody>
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* Note: includes responses when they come from one mate of the couple.

Burton & Sanders 2004 MJA 180: 559-561

81627 embryos in storage at 5th April 2002
80% usage rate
Leaves 16326
30% willing to donate to research = 4897
70% will survive the freeze/thaw = 3427