Ethical aspects of fertility preservation in patients with severe disease

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Barcelona, June 2011
From ethics to bioethics

• Ethics is the logical analysis of why you think something may be right or wrong (although 2 wrongs do not make a right)

• There may be more questions than answers

• Bioethics must be informed by evidence in science, it is not a belief, although as a clinician I must respect patients’ belief

• As clinicians (scientists, embryologists …) we have professional responsibility … to > 1 party

• This specific issue is time depend: use of what is preserved
(Simplified) (bio)ethical analysis: 3/4 principles

• **Autonomy (respect of):** consent (legal aspect) for investigations and treatment; information is “key” to consent

• **Beneficence V non maleficence (“ primum non nocere”):** Evidence of residual disease in cryopreserved ovarian cortex from female patients with leukemia, Rosendahl et al (Fert and Ster Vol. 94, No. 6, November 2010, 2186-2190)

• **Justice and access to healthcare: equity (similar cases given fair/ similar chance),,,also a universal concern, intra-societal (intra-national) and international**
ART: specific ethical aspects

• **Welfare of the (future) child**: minimal vs max threshold eg relevance of parental health (TF13, H R 22: 2585-88 (2007))

• **new techniques** ...(may be adopted)... without the necessary evaluation of their efficacy, effectiveness, safety and social and economic consequences…

• Their use without **safeguards** re health of the children= premature introduction of drugs without proper **research**
ART ethico-political aspects: “macro” ethics

• Justice and access to fertility treatment in general: are barriers ethical?

(Access barriers to treatment: in UK all care > 40 is in private sector; other criteria BMI, FSH levels; in France <43, couple)…

• Possible barriers: long waiting lists for OD (hence cross border); non anonymous donation, or whichever patients prefer; access to surrogacy and the law…

• Fair access to fertility preservation: funding and prioritisation
• **Equity of access to assisted reproductive technology**, Hum Reprod, Vol.22:2585–2588, 2007

• Medical interventions, both to have a child and to avoid a genetically affected child, should be **funded at least partially** in relatively affluent societies.

• Funding of medically assisted reproduction should be considered in a structured way including **efficiency, safety** and equity to **avoid unjustified discrimination**

• The deciders: prioritisation f (diagnosis, age, outlook/prognosis, lottery?)...: is cancer more “severe” than endometriosis, Turner’s syndrome , …, ..
Respect of autonomy and consent: adult

• Key to consent is **information** (informed consent is a tautology)

• Means to understanding: of information: capacity

• Capable adult may consent, dissent, choose alternatives (embryo freezing, oocyte freezing, egg donation, surrogacy, no children)…

• Adult may refuse any treatment and “a fortiori” also any “preventive” measure like storage

• But the alternatives/choices should be explained (offered?....)
Consent: Children and adolescents

- Children, adolescents: capacity differs (variable autonomy and ability to consent): more gradient than dob limit.

- Child: generally the (legal) test for treatment is “best interest”;

- Parents are proxy to this decision,

- They may experience “anticipated decision regret” (Wynns et al, 2011, Management of fertility preservation in prepubertal patients: 5 years’ experience at the Catholic University of Louvain, Hum Reprod, Vol.26: No.4 pp. 737–747)

- Parental responsibility
Respect of autonomy: consent and dissent

• The moral and legal recognition of autonomy is achieved by obtaining the informed consent of the patient.

• Obtaining informed consent from adults and children differs because of their different decision making capacity (competence).

• There is no need for a specific age at which an adolescent becomes competent: emerging autonomy.

• The child: In the ideal situation the child, parents and caring team agree on the best interest of the child. However, when there is disagreement, the child decision should be respected if the child is mature and understands the issues at stake (in UK, Gillick competence).
Specific ethical aspects for cryo and (future) use

1. Time effects/duration of cryo-preservation: how long should the storage period be?
2. And ….consent to storage is different from consent for use (renewed)
3. posthumous reproduction
4. consider alternatives: gametes donation, surrogacy, adoption
5. Transition : from research to therapy
How long and how late?

- Till (woman) 50?
- Gender?
- Couple?
Specific ethical dilemmas

- **posthumous reproduction**

- Only with prior specific consent (written) to a named partner (UK model)

- 3.2.2. in the case of a single adult with serious disease, the material should be discarded on the death of the provider

- 3.4.1 donation for research: after implication counselling, all gametes or tissue providers or their proxy may donate the reproductive material for research.

- (TF 7 Hum Reprod 2004; 19 (2):460–2)
Parents create dead daughter's child
by Steve Connor and Cherry Norton

A 23-YEAR-OLD has become the world's first surrogate mother to carry the unborn child of a dead woman. She has become pregnant after the successful implantation of a frozen embryo from a woman who died of cancer almost a year ago.

The grandparents of the unborn child, who are both in their sixties, said that although they would like to duplicate their daughter, their main motive stemmed from her desire to be a mother from beyond the grave.

The ethical dilemma posed by the prospect of the first birth of a dead woman's child is the latest controversy arising from...
The most difficult question (4)

- From “innovative technique” to “routine treatment” or “therapy”

- ….”For both male and female patients with cancer, quality-of-life issues, such as fertility preservation and parenthood, have become an essential component of treatment “(Surviving childhood and reproductive-age malignancy: effects on fertility and future parenthood, Knopman et al, (Lancet Oncol 2010; 11: 490–98)

- (differs from Do doctors discuss fertility issues before they treat young patients with cancer?...)

- Which fertility preservation?
• What we said then:

• In view of the **transition time** during which research becomes therapy, the considerations of the taskforce will need revision when new evidence is available… specifically in the case of cryo-preservation of reproductive tissues, in vitro maturation and in vitro follicle culture

• Consent needs to be obtained within a research context rather than for therapy or preservation of fertility per se..

• **What** should we say now? **2011.**
Innovation: What are the core questions?

• Innovative reproductive technologies: risks and responsibilities

(Wybo Dondorp, Rome, 2010; now in press, with G De Wert)

facts: burden of infertility (here iatrogenic),

Need: for sound evaluation of efficacy, effectiveness, safety of technologies introduced in clinical practice

Safety: both for (mostly) the woman and her offspring (risks)

Responsible innovation = N steps of research: preclinical investigations, clinical trials and follow up
A difficult equation/calculus

- **Timing of transition** from research to practice

- **Is it always possible/appropriate to conduct ideal trials?** (prospective randomised) :(Wallace and Barr) “neither feasible nor ethical to perform a randomised study in women of laparoscopic collection v dummy collection or non intervention”

What is the evidence today?: very rapid change in the last few 3 years,

- What are the **dangers** to the patient: **measurable** (surgery, menopause v **less easily measurable** (? Loss of chance for pregnancy with one’s own genetic offspring), + the “**hope factor**”, considering future fertility is **quality of life** enhancing
POLEMIQUE AUX ETATS-UNIS :
DES FEMMES FONT CONGELER LEURS OVULES
UN BÉBÉ POUR PLUS TARD ?

Parce qu’elles se consacrent à leur carrière ou qu’elles n’ont pas trouvé le père idéal, des Américaines font congeler leurs ovules pour différer leur grossesse. Des entreprises ont fleuri la bonne affaire... ENQUETE ISABELLE DURIEZ.

À la terrasse d’un café californien, elle siblote son thé glace fumé de cend. Pourtant, cette jeune femme à l’allure de poupée Barbie vient de lancer une petite bombe sur le marché de la fécondité aux États-Unis. Elle est en train d’investir des millions de dollars dans une nouvelle technologie qu’elle exclame « aussi révolutionnaire que le pilule » : la congélation des ovules. « Nos mamans ont passé leur vie à essayer de ne pas tomber enceintes. Notre génération, elle, n’arrive pas à faire des bébés. Eh bien, promet-elle, finie la tyrannie de l’horloge biologique. » Selon Christy Jones, fondateure d’Extend Fertility, les femmes peuvent avoir un enfant quand elles le souhaitent, même après 35 ans, à condition de faire congeler leurs ovules tandis qu’elles sont jeunes. Et de préférence dans l’une des sept banques d’ovules qu’elle vient d’ouvrir aux quatre coins des États-Unis.

Christy Jones est ni médecin ni chercheur, mais une redoutable femme d’affaires qui sait à qui elle s’adresse : aux millions de ménagères californiennes qui, comme elle, ont peur de rencontrer trop tard l’homme de leur vie. » Quand j’avais 20 ans, raconte-t-elle, j’imaginais que j’allais faire des études, rencontrer l’homme de ma vie, me marier et avoir des...
Adolescents, growing autonomy and research

• May Gillick competence (based on maturity and understanding), used in medical and healthcare practice, apply to participation in research?

• No (Hunter and Pierscionek): generally research seeks to answer specific questions, and benefits for the participants can be incidental rather than a primary aim

• BUT “legitimate” : (1) when the research is likely to generate significant advantages for the participants, while exposing them to relatively minor risks

• (2) when it is likely to generate great societal benefit, pose minimal risks for the participants
When justice fails us at home: Crossing borders


- European Commission – B–1049 Brussels

- [http://ec.europa.eu/dgs/health_consumer/index_en.htm](http://ec.europa.eu/dgs/health_consumer/index_en.htm)

- How will it affect our patients, especially if there is no national (or private) insurance cover?…
Would you sell your eggs for...

Young women are being asked to sell eggs to infertile couples. Some do it out of kindness; others to earn money.

Eirwen, 22, sold her eggs to finance the cost of IVF for her sister and her partner. She found it hard to imagine selling her eggs, but the allure of the money was too tempting. She was paid £150 for each egg.

A spokesperson for the Human Fertilisation and Embryology Authority (HFEA) said: “We have been monitoring the number of egg donors in recent years and our data shows that the number of donors is declining. This is concerning as it means that fewer couples are able to access fertility treatments.”

The HFEA is working with egg donation centres to increase awareness of the need for more donors. They are also encouraging people to consider donating their eggs, as it can be a rewarding experience and help others achieve their dream of having a family.
What should society provide?

• 1. **solidarity**: Cancer, severe disease patients cryo: free/ mandatory insurance

• Treatment post cure or remission (eg conditional)

• 2. ?? **Posthumous treatment**: funding?

• 3. means to follow up offspring and analyse results: a REGISTER

• 4. Cancer and fecundity issues mandate a **multidisciplinary approach**, (de Ziegler et al, Fert and Ster)
Time