

The Ethics of Uterine Transplantation

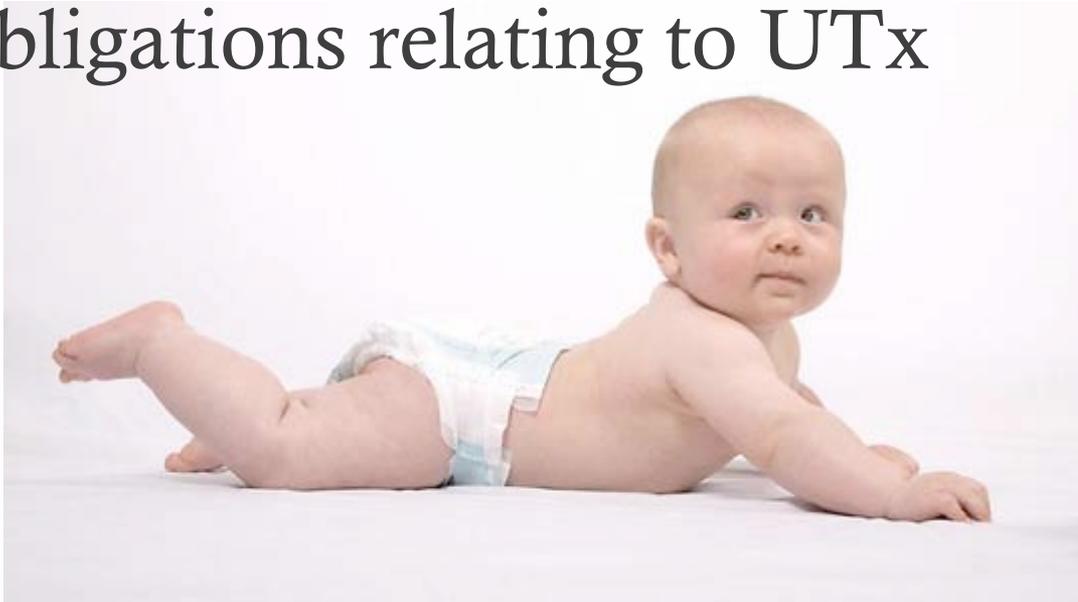
**Obstetrics and Gynecology Grand Rounds, IWK Health Centre
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NTE Impact Ethics

Objectives

1. Outline the current state of uterine transplantation (UTx)
2. Consider physician's ethical obligations relating to UTx



The Plan



1. Survey of UT_x
2. The Canadian Context
3. The Ethical Physician
4. Discussion

Survey of UTx

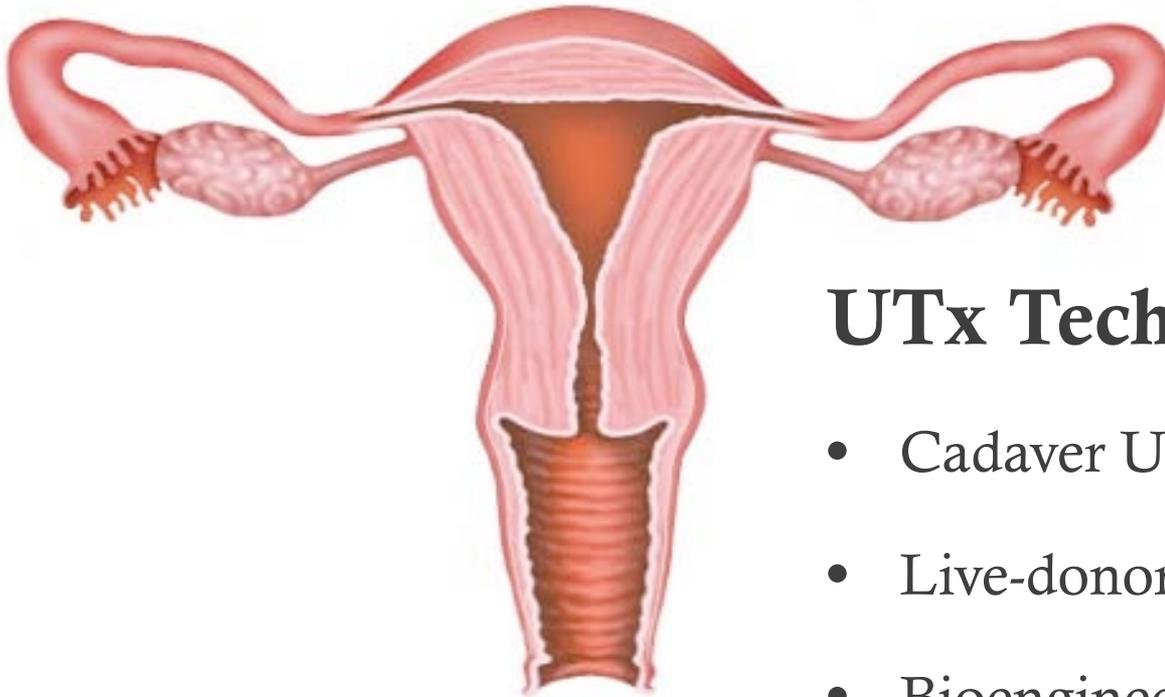
Patient Population

- Congenital or Acquired Uterine Factor Infertility (UFI) (absolute or relative)
- 3-5% of women



(Akar et al 2015)

Survey of UTx



UTx Technologies

- Cadaver UTx
- Live-donor UTx
- Bioengineered uterus.

(Lefkowitz et al 2012; Hellström et al 2014)

Survey of UTx

History of UTx

- Apr 2000 Saudi Arabia
- Aug 2011 Turkey
- Sep 2012 - Apr 2013 Sweden

(Johannesson and Enskog 2014)

Survey of UTx- Swedish Trials

Brännström and colleagues 2012-2014



(Johannesson et al 2015)

Survey of UTx- ... Success

Vincent- born October 2014



Additional pregnancies (unofficially) reported in Swedish UTx trial

The Canadian Context

- # of women with UFI
- State of adoption and surrogacy in Canada
- Part of a global context-
cross-border travel may be a
future option
- Current research in Canada



Driving Question



How does the ethical physician engage with UTx?

Survey of UTx

- CMA code of ethics/ SOGC Guidelines
- 2009 FIGO Guidelines
- Dec 2011 Indianapolis Consensus
- 2012-2013 Montreal Criteria for Ethical Feasibility of Uterus Transplantation

Montreal Criteria



(Lefkowitz et al 2012)

The Ethical Physician

- **What do you do when a patient with UFI inquires about UTx?**

The Ethical Physician



Advocate

- *Benefits to Donor*
- *Benefits to Recipient*
- *Benefits to Fetus/ Offspring*
- *Benefits to Society*

The Ethical Physician



Advocate

- *Benefits to Donor*
 - Altruism
 - Grandchild/ family

OR

- Bioengineered Uterus- N/A

The Ethical Physician



Advocate

- *Benefits to Recipient*
 - Reproductive autonomy
 - Stigma/ harm of infertility
 - Stigmatized identity (Landau 2007)
 - Experience pregnancy
 - ‘Only’ chance
 - Avoid legal/religious concerns

The Ethical Physician



Advocate

- *Benefits to Fetus/ Offspring*
- Life

The Ethical Physician



Advocate

- *Benefits to Society*
 - Scientific discovery
 - Avoid ethical and legal challenges with surrogacy

The Ethical Physician

Dissuade

- *Harm to Donor*
- *Harm to Recipient*
- *Harm to Fetus/ Offspring*
- *Broader Social Concerns*



The Ethical Physician

Dissuade

- *Harm to Donor*
 - Surgical Risks- radical Hysterectomy
 - Anesthesia
 - Obtaining informed consent
 - Compromise identity, sexual function
 - Sense of failure

(Carter et al 2010; Kisu et al 2012)



The Ethical Physician

Dissuade

- *Harm to Recipient*

- Immunosuppressants
- The potential for infection and thrombosis in the transplanted uterus
- Potential development of pre-eclampsia, preterm contractions and acute rejection of the uterus
- Risks associated with preterm delivery
- Risks associated with eventual removal of the transplanted organ
- Emotional rejection/ alienation/ pregnancy
- Cost
- Informed Consent
- Multiple surgeries

(Shah and Blake 2014; Lefkowitz et al 2012)



The Ethical Physician

Dissuade

- *Harm to Fetus/ Offspring*
 - Organ rejection/ abortion
 - Immunosuppressant drugs

(McKay and Josephson 2006)



The Ethical Physician

Dissuade

- *Broader Social Concerns*
 - Distributive justice/ access
 - Social justice
 - Cost to healthcare system (research/ service)
 - Reinforces pronatalism

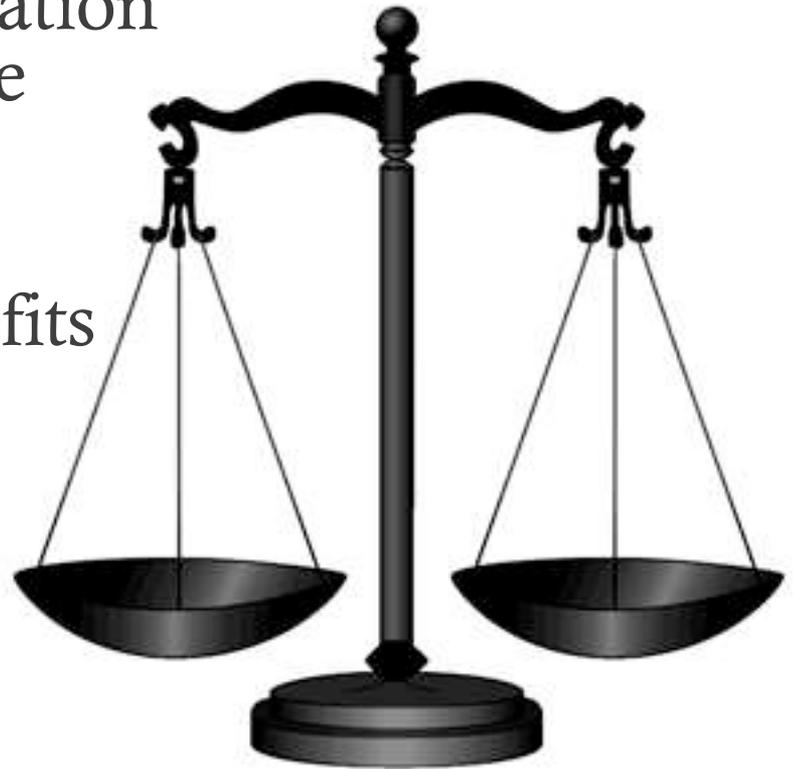
(Shah and Blake 2014)



The Ethical Physician

Neutral

- Give unbiased information to women who inquire about UTx
- Medical risks and benefits
- Costs
- Social Considerations



The Ethical Physician

Is there an obligation to tell *all* eligible patients about UTx?

- **Yes...**
- **No...**



Background Principles

- Faming matters: ART vs. Organ Transplantation
- Reproductive Right (positive or negative)
- Research vs. therapy
- Western-centric

(Catsanos, Rogers, and Lotz 2013;
Kisu et al 2010)



Ethical Challenges

- Informed consent- Emotional issue
- Cultural, Ethical, Religious diversity
- Cross-border healthcare- after care
- OBGYN role as ART expert
- Similarities to other experimental technologies



Discussion

Thank you



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