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Ανασκόπηση

Uterine Transplants – Considerations of Legal Frameworks, Access for Transgender Women, and Ethical Considerations

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Abstract

Uterine transplantations (UTx) are rapidly gaining popularity as an artificial reproductive technique (ART). Uterine transplantations (UTx) refer to a surgical procedure whereby a healthy uterus is transplanted from one person to another. Up to date, UTx procedures have been performed on cisgender women who struggle with some sort of infertility, whether that be Absolute Uterine Factor Infertility or Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome, a disorder where someone is born without a uterus. Though this procedure is not currently offered as routine treatment in any country worldwide, it is essential to determine the key ethical and legal debates surrounding the procedure in order to determine whether current organ transplantation laws are adequate for this procedure, or if new legislation is necessary in order to capture the complex nature of the procedure. UTX not only involves the routine complexities of any organ donations, such as kidney donations, but it also creates a unique level of added harm for both the donor and the recipient. Currently, no country has suggested to bring forward specific legislation regarding this procedure. However, I will argue that it is essential to view this ART as a different level of organ donation, thus requiring an individual set of legislation. UTx specific legislation will aid to combat inequalities and prevent coercion at an international level. This article will establish three main considerations regarding this procedure. Firstly, I will ask whether a new legal framework is required in order to deal with the issue of uterine transplants, or will it be sufficient to apply current rules regarding organ transplantations? I will analyse laws regarding access to UTx in the following countries: Sweden, Lebanon, the United Kingdom, and the United States., I will seek to establish the medical and ethical considerations regarding access to uterus transplants for transgender women, how it would be physiologically possible, and the importance of allowing access to uterus transplants for this subgroup of women. I will seek to point out a myriad of ethical issues that arise from the procedure, such as deceased donations, fair distribution, whether the procedure should be made available for cisgender and transgender men, the principle of harm and whether this level of harm to the donor and to the recipient could be ethically acceptable, and finally, the right to procreate and where UTx lies within this right. Ultimately, I will seek to establish that a new and innovative set of legislation should be implemented in order to encapsulate the complex nature of UTx.

Keywords: Uterine transplantations, organ donation, organ transplantation laws, transgender/cisgender persons, right to procreate.

Μεταμοσχεύσεις μήτρας – Σκέψεις σχετικά με το νομικό πλαίσιο, την πρόσβαση των τρανσέξουαλ γυναικών και τα ηθικά ζητήματα

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Περίληψη

Οι μεταμοσχεύσεις μήτρας (UTx) κερδίζουν γρήγορα δημοτικότητα ως μέθοδος τεχνητής αναπαραγωγής. Αφορούν μια χειρουργική επέμβαση κατά την οποία μια υγιής μήτρα μεταμοσχεύεται από ένα άτομο σε ένα άλλο. Μέχρι σήμερα, οι διαδικασίες UTx έχουν πραγματοποιηθεί σε γυναίκες με ταυτότητα φύλου (cisgender) που αντιμετωπίζουν κάποιο είδος υπογονιμότητας. Αν και αυτή η διαδικασία δεν προσφέρεται επί του παρόντος ως συνήθης θεραπεία σε καμία χώρα παγκοσμίως, είναι απαραίτητο να προσδιοριστούν τα βασικά ηθικά και νομικά ζητήματα, προκειμένου να καθοριστεί εάν οι ισχύοντες νόμοι για τη μεταμόσχευση οργάνων είναι κατάλληλοι ή εάν απαιτείται νέα νομοθεσία. Θα υποστηρίξω ότι η μέθοδος αυτή έχει ιδιαίτερη πολυπλοκότητα, που απαιτεί ένα ξεχωριστό σύνολο νομοθετικών διατάξεων. Η ειδική νομοθεσία για την UTx θα συμβάλει στην καταπολέμηση των ανισοτήτων και στην πρόληψη του εξαναγκασμού σε διεθνές επίπεδο.

Λέξεις κλειδιά: Μεταμοσχεύσεις μήτρας, δωρεά οργάνων, νόμοι περί μεταμόσχευσης οργάνων, διεμφυλικά/ταυτοφιλικά άτομα, δικαίωμα στην αναπαραγωγή.

Introduction

Uterine transplantation surgery (UTx) has been performed worldwide on approximately 100 women. This innovative procedure has the potential for infertile women to experience biological motherhood, which is the main difference between UTx and other artificial reproductive techniques (ARTs). This incredible achievement for the world of ARTs, however, is overshadowed by a myriad of ethical considerations and debates. This article aims to cover the key ethical debates surrounding UTx and will aim to establish that there is a need for UTx specific legislation in order to cover the level of harm that this procedure entails for both the donor and the recipient of the uterus. It is essential that UTx specific legislations are passed before the procedure is made routine-treatment in any country, which is currently not the position.

Legal Considerations

In order to establish whether a new set of legislation is required and in order to address the complexities of UTx, it is essential to examine laws surrounding organ donation, specifically of uteri globally, in order to compare and contrast the most and least efficient legal approaches to this procedure. In order to do this, I will examine the law regarding UTx in the following countries: Sweden, Lebanon, the United Kingdom, and the United States. These locations were chosen as examples due to the accessibility of research coming out of these countries. By analysing the legal frameworks relating to UTx in a variety of countries, I will aim to observe effective and non-effective legal approaches pertaining to this procedure, ultimately considering whether a specific legal standpoint is needed in cases relating to uterine transplantations.

Sweden is one of the most advanced countries regarding legislation pertaining to UTx donations. Organ donation in Sweden is governed by the Swedish Transplantation Act.[1] The Act creates special conditions for donations if the organ, like the uterus, does not regenerate.[2] 'To take nonregenerative material, the donor's consent must be given in writing (section 6) and the donor must be a family member or have a close relationship to the recipient, unless special circumstances apply. A close relationship is considered to include generally only spouses, registered partners or cohabitants. Only people who, due to their relationship with the patient, have a very strong interest in helping the patient should be considered as donors.'[3] Whilst this approach ensures that no coercion of donation will take place in terms of financial needs, it could be argued that pressure could still be placed on people close to infertile women. For example, if a sister has had three children and is no longer planning on childbearing in the future, and another sister is not able to conceive a pregnancy or see a pregnancy through full term, societal and familiar pressure could be placed on the sister to donate her uterus to her sister. This is a key flaw of the close relationship donation legislative model for the donation of uteri. Bergius et al argue that this legislative approach is restrictive due to the fact that living uteri donations are limited to people with a close relationship with the recipient. They state that 'the possibility of using living donors for UTx is

[1] Swedish Transplantation Act 1995:831, section 1
[2] M. Bergius, T. Mattsson, L.Wahlberg, Uterine Transplantations in Sweden, International Legal and Ethical Perspectives on Uterus Transplantation, Edward Elgar Publishing Limited, London, 2024, p 230.
[3] *Ibidem.*

thus relatively constrained.'[4] Sweden's consideration for the non-regenerative nature of the uterus is a net positive. However, this law is not sufficiently thorough in terms of addressing the level of harm that the procedure creates for both the donor and the recipient. Due to this, even though Sweden's laws are the most thorough regarding UTx and uteri donations, it would be preferrable to have UTx-specific legislation.

According to Hazae Haidar, Tala Khansa and Thalia Arawi, 'in 2018, the first UTx was conducted within a clinical context in Lebanon. The recipient was a 24-year-old woman with Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome, congenital absence of the uterus, and the living donor was her 50-year-old multiparous mother.'[5] This medical trial resulted in 'the first successful live birth in Lebanon and the Middle East, North Africa, and Turkey (MENAT) region' in January 2020.[6] UTx is still 'considered as having clinical trial status', and as such 'there are currently no specific legal guidelines in Lebanon for the regulation of UTx.'[7] Haidar et al argue that 'it is no coincidence that UTx trials started to be performed in MENAT countries, where this reproductive procedure might constitute a way to achieve motherhood for those women suffering from AUFI (absolute uterine factor infertility) and for whom other alternatives such as adoption and surrogacy are legally prohibited.'[8] Lebanon also faces cultural challenges that may be address through the development of UTx. As 'an Arab country, Lebanon is a pronatalist society where childless marriages are usually frowned upon… Consequently, many women feel indirectly coerced to do whatever it takes to conceive and give birth to their "genetic" child.'[9] Haidar et al argue that 'the overview of the Lebanese social fabric, including religious authorities' positions on adoption and surrogacy as options to address infertility, clarifies why UTx is attractive in the Lebanese setting, especially for Muslim communities, where surrogacy is highly controversial and adoption is unacceptable from a religious viewpoint.'[10] "According to Islam, children are considered a blessed gift of Allah: 'Wealth and children are an ornament of life of the world' (Qura'n 3:6, 4:1, 6:143-144, 8:75, 13:8). Therefore, for Middle Eastern Muslims, procreation is highly desirable as parenthood is culturally and socially prized."[11] Islamic law generally allows organ donation under certain conditions, such as obtaining authorisation from the donor, ensuring minimal harm to the donor and respecting specific prohibitions. This might be a hurdle to overcome in the path of creating UTx specific legislation, as it could be argued that uterus donors can go through a great deal of harm, namely, infertility. Furthermore, 'in the case of reproductive organs that carry genetic material, such as testes and ovaries, transplantation is not allowed as the genetic material belongs to the donor".[12] This principle highlights Islamic teachings regarding "the importance of preserving genetic lineage and clear parentage". [13] This makes UTx generally permissible, as the uterus does not allow

[4] *Ibidem.*
[5] H. Haidar, T. Khansa and T. Arawi, Uterine transplantation in Lebanon: social, ethical, and legal considerations, Edward Elgar Publishing Limited, London, 2024, p 256.
[6] *Ibidem.*
[7] *Idem* p 256 and p 257.
[8] *Idem 257.*
[9] *Ibidem.*
[10] *Idem, p 263.*
[11] *Ibidem.*
[12] *Idem, p 264.*
[13] *Ibidem.*

for the transmission of genetic material. [14] Haidar et al highlight this statement, warning that 'when UTx becomes clinically available, there will be numerous regulatory hurdles to overcome in the Lebanese setting, beginning with obtaining approval from various religious authorities.'[15] Lebanon offers a unique perspective on the issue of UTx. Given the focus of gestational motherhood that is highly encouraged by religious figures and authorities, a specific set of UTx legislation may be the best way forward in order to ensure that all women in Lebanon whether Muslim or Christian could have access to this procedure. Lebanon is another clear example of the need for UTx specific legislation, as other forms of ARTs are explicitly prohibited by religious and governmental organisations.

The United States' current position on the limitation of ARTs, abortion, and other means of women's health offers a unique perspective regarding the issue of UTx. According to Valarie Blake and Seema Mohapatra, in the United States 'UTx, which includes invitro fertilization, encounters a small body of laws governing assisted reproduction and, more importantly, a historically divisive battle over reproductive freedoms which is currently at fever pitch after the recent demise of the federal right to abortion.'[16] They highlight that 'there is a great concern that reproductive practices such as IVF that are used in conjunction with UTx could be swept up in the overregulation of pregnant people's bodies in the US, especially as the US is undergoing a period of rights retraction.'[17] Due to this, they argue that 'as UTx becomes more available, it may be necessary to pass UTx-specific regulations and laws to protect the parties involved.'[18] However, they warn that 'this seems increasingly unlikely and fraught given the shifting landscape of reproductive rights and freedoms in the US.'[19] Given the current culture wars in the United States, and the vastly different views on access to ARTs, it will be interesting to see how these varying decisions will reflect in different states throughout the country. In February 20204, 'The Alabama Supreme Court issued a ruling… declaring that embryos created through in vitro fertilization (IVF) should be considered children.'[20] Judicial decisions such as these at the state level could mean that there could be great discrepancies in the field of reproductive technologies. This may, in turn, lead to a possible form of medical tourism within the country, as people could potentially travel to other states to access their desired treatments. This principle of internal medical tourism is already being observed through travel through state lines in order to receive adequate healthcare regarding fertility. The suggestion for legislation specific to UTx that this article offers could seem somewhat problematic in the United States and in other federal jurisdictions. Federal jurisdiction could create a potential challenge to access and equity in regards to this procedure, meaning that some women may have access to certain ARTs, such as UTx, and others within the same country will be unable to access even simpler access to women's healthcare, such as abortion and contraceptive care. Due to this, it

[14] *Ibidem.*
[15] *Idem*, p 273.
[16] V. Blake and S. Mohapatra, Regulating uterus transplantation: the United States, Edward Elgar Publishing Limited, London, 2024, p 241.
[17] *Idem*, p 254.
[18] *Ibidem.*
[19] *Ibidem.*
[20] A. Rosen, The Alabama Supreme Court's Ruling on Frozen Embryos, John Hopkins University, Bloomberg School of Public Health, 2024 <https://publichealth.jhu.edu/2024/the-alabama-supreme-courts-ruling-on-frozen-embryos>

could be argued that the suggestion to create UTx specific care, even though efficient for most jurisdictions, may create a certain level of inequality in federal jurisdictions.

Transgender Women's Right to Uterus Transplantations

In order to cover transgender women's right to UTx, I will comment on United Kingdom legislation pertaining equality and access to healthcare for transgender women. In England and Wales, The Human Tissue Act 2004 'regulates the donation, removal and transplantation of human organs and tissues, and established the Human Tissue Authority.'[21] [22] According to Natasha Hammond-Browning, 'the legislative challenge is that the donation and transplantation of uteri was unheard of when the Human Tissue Bill was drafted and debated, and UTx has not been at the forefront of law makers' minds with subsequent legislative progress in this area, so that the regulation of UTx has to fit within existing legislative regimes that were designed and implemented without UTx in mind.'[23] Hammond-Browning highlights the issues that UTx would bring about regarding legal parentage in the United Kingdom. According to Natasha Hammond-Browning, 'worldwide, current UTx recipients are cis-gender women with Absolute Uterine Factor Infertility, and the relevant legal parentage provisions are applied to this group.'[24] However, 'UTx offers the possibility of gestational parenthood for transgender women, transgender men and cisgender men, and the current parentage provisions are also applied to these potential recipients, highlighting the difficulties with the current provisions.'[25] Hammond-Browning argued that 'UTx may be desired by transgender women for reproductive means, or alternatively as a method to fulfil their gender realignment. Gender reassignment is a protected characteristic; transgender people are given explicit protection from indirect and direct discrimination under the Equality Act 2010.'[26] [27] Therefore, in the United Kingdom, it would be 'legally impermissible to refuse to perform UTx in transgender women solely because of their gender identity.'[28] Hammond-Browning argues that 'although there are not yet any clinical trials performing UTx in transgender women, and notwithstanding the medical considerations it involves, the legal parentage of transgender women who utilise UTx to gestate and birth a child must be examined before the procedure is performed.'[29] UK courts were recently faced with the question of legal parentage regarding a transgender parent in the case of *R (on the application of TT) v The Registrar General for England and Wales*.[30] This case involved 'a transgender man who had received a gender recognition certificate and subsequently un-

[21] N. Hammond-Browning, Regulating uterus transplantation: the United Kingdom, Edward Elgar Publishing Limited, London, 2024, p 276.
[22] The Human Tissue Act 2004.
[23] N. Hammond-Browning, *op. cit.*, p 276.
[24] *Idem*, p 281.
[25] *Ibidem.*
[26] *Idem*, p 285.
[27] The Equality Act 2010.
[28] BP. Jones, NJ. Williams, S. Saso, M-Y. Thum, I. Quiroga, J. Yazbek, S. Wilkinson, S. Ghaem-Maghami, P. Thomas, JR. Smith, Uterine Transplantation in Transgender Women, BJOG: An International Journal of Obstetrics & Gynaecology, Volume 126, Issue 2, 2019, p 152.
[29] N. Hammond-Browning, *op. cit.*, p 285.
[30] *R (on the application of TT) v The Registrar General for England and Wales* [2019] EWHC 2384 (Fam).

derwent intrauterine insemination (IUI) resulting in pregnancy and birth.'[31] [32] The court held that even though a transgender man would be giving birth, 'in common law, the person who carries a pregnancy and gives birth to a child is that child's mother' due to the legal principle of *mater semper certa est* (the mother is always certain), which was later ratified in the Human Fertilisation and Embryology Act 1990.[33] [34] [35]Although this principle is restricting for transgender men who give birth, it would mean that any transgender woman who gives birth through procedures such as UTx would be the legal mother of any child they conceive and birth, creating a unique legal standpoint that would reshape the preconceived notion of motherhood, expanding the legal understanding of the term "mother".

Natasha Hammond-Browning argues that 'whilst UTx for transgender women and men may become medically possible… there is uncertainty around the legality of transferring IVF embryos to bodies that are anatomically male.'[36] The Human Fertilisation and Embryology Act 1990 states that the transfer of embryos is permitted 'for the purpose of assisting women to carry children.'[37] Hammond-Browning argues that 'there is an incongruity between society's increasing acceptance of transgender (and others) people's right to present and be accepted in the gender they identify with, and the expectation to apply for legal recognition of a gender other than the one assigned at birth.'[38] The Gender Recognition Act 2004 states that 'a person of either gender who is aged at least 18 may make an application for a gender recognition certificate', therefore there is no legal requirement to 'seek recognition of one's gender where it is different to that assigned at birth.'[39] [40] Hammond-Browning argues that 'it must be considered if it is legally permissible to transfer embryos to someone other than a cisgender woman or a transgender man without a gender recognition certificate (as they would legally remain a woman).'[41]

According to a recent report by the George Washington University School of Medicine and Health Sciences in Washington DC, 'currently, uterine transplantation has only been conducted in cisgender women, and there has been little progress on its successful application to the transgender population.'[42] Furthermore, they state that 'uterine transplantation has the potential to transform the way gender identity is discussed and understood in regards to transgender MtF (Male to Female) individuals.'[43] They argue that 'the female identity has been chiefly constructed around the idea of reproduction and childbirth' and that 'extending the capability of having biological children through suc-

[31] N. Hammond-Browning, *op. cit.*, p 285.
[32] *R (on the application of TT) v The Registrar General for England and Wales* [2019] EWHC 2384 (Fam).
[33] N. Hammond-Browning, *op. cit.*, p 283 and p 285.
[34] *R (on the application of TT) v The Registrar General for England and Wales* [2019] EWHC 2384 (Fam).
[35] Human Fertilisation and Embryology Act 1990.
[36] N. Hammond-Browning, *op. cit.*, p 287.
[37] Human Fertilisation and Embryology Act 1990, section 2.
[38] N. Hammond-Browning, *op. cit.*, p 287.
[39] *Ibidem.*
[40] Gender Recognition Act 2004 section 1(1).
[41] N. Hammond-Browning, *op. cit.*, p 288.
[42] A. Shetty, Y. Dong, J. Goldman, M. Akiska, B. Ranganath, Uterine Transplantation in Transgender Individuals as Gender Affirmation Surgery, George Washington University School of Medicine and Health Sciences, Washington DC, 2023, p 1.
[43] *Ibidem.*

cessful uterine transplantation and live birth blurs the distinction between transgender women and individuals born as biological females.'[44] They conclude their report by claiming that 'uterine transplantation has the incredible capacity to not only redefine gender identity as a social concept, but also to expand the scope of medical care in women's reproductive health.'[45]

In the case of transgender women's access to UTx in the United Kingdom, it would seem that UTx-specific legislation would be the best way forward in order to ensure equitable access to this procedure for all women. Legislation pertaining to ARTs is highly outdated and does not reflect the needs of today's women, given the growth of technological advances in reproductive technologies. Societal advances are also misrepresented by the current set of laws that govern access to reproductive technologies. Societal acceptance of transgender women has grown significantly, and equal access to legal protections would have been unlikely in the years where these sets of legislation were passed. Due to the fact that lawmakers in the United Kingdom seem unwilling to overhaul these pieces of legislation, UTx-specific legislation would be a good temporary solution in order to ensure gestational motherhood for transgender women and therefore, equal access to fertility treatment for all women in the United Kingdom.

Ethical Considerations

In order to establish the terms of UTx-specific legislation proposed in this article, it is essential to highlight ethical considerations concerning the procedure.

One of the key ethical considerations regarding uterine transplantations is deceased donations. Bethany Bruno and Kavita Shah Arora argue that, in general, 'deceased organ donation for lifesaving organs is morally based in the principles of rescue ethics' as we have 'a moral responsibility… to save endangered human life whenever possible.'[46] 'Postmortem organ removal involves no physical risks, costs, or inconvenience to the donor, and the ability to save lives justifies desecration of the deceased's body.'[47] However, Bruno and Arora argue that 'while the ability to save lives justifies desecration of the deceased's body, it is not immediately clear that the ability to improve quality of life does the same.'[48] 'Nonetheless, science and society at large have permitted donation of other quality-of-life donations, including vascular composite allografts (VCAs) for face and arm transplantation' from deceased donors, thus, 'it seems that society has broadened the justification for deceased organ donation from the rule of rescue to a more general appeal to beneficence.'[49] Nonetheless, it could be argued that 'unlike face and arm transplants, uterus transplants are ephemeral in nature', as the uterus is removed after childbirth.[50] It is therefore essential to determine whether being presented with the opportunity to experience gestation would be a sufficient reason to be able to obtain uteri from deceased donors.[51] The procurement of the uteri also poses a key question. According to Bruno and Aro-

[44] *Ibidem.*
[45] *Ibidem.*
[46] B. Bruno, K. Shah Arora, Uterus Transplantation: The Ethics of Using Deceased Versus Living Donors, American Journal of Bioethics, Volume 18, Issue 7, 2018, p 7.
[47] Ibidem.
[48] Ibidem.
[49] *Ibidem.*
[50] *Ibidem.*
[51] *Ibidem.*

ra, 'procurement of the uterus as a nonvital organ should occur after procurement of vital organs.'[52] Uterus removals typically last between 18-90 minutes.[53] Due to the timeframe within which organ removals must be carried out, procurement of non-vital organs, including the uterus, would be improbable in most cases of deceased donation.[54] The likelihood of uterus removals from deceased donors must be established in any UTx-specific legislation which may be brought forward. It is essential to highlight the fact that deceased procurement is unlikely and other vital organs must be prioritised. In Sweden, deceased donations were historically constrained. This principle is highlighted through current Swedish law. 'Until 1 July 2022, donation where the donor's will was unknown was not permitted if the donor's next of kin objected to the intervention.'[55] However, 'a recent change in legislation has abolished the family veto.'[56] Swedish law now allows organ donations not only following brain death, but also following circulatory death.[57] This legal change also allows 'organ preserving treatments on not yet deceased donors if there is no indication that this would be against the donor's will.'[58] 'In its 2016 commentary on UTx, the Swedish National Council on Medical Ethics (Smer) stated that due to the significant uncertainties associated with the risks to which UTx exposes the mother and child, the treatment could not yet be offered within regular health care.'[59] [60] It is crucial, however, to keep in mind that this opinion was given in 2016. Bergius et al argue that 'considering the rapid development of medical knowledge and techniques in this domain, it is not unlikely that UTx will be considered sufficiently safe and effective in the near future.'[61]

Fair distribution and allocation of uteri is another one key ethical debates surrounding the procedure of uterine transplantations. Ryan Tonkens argues that a "womb lottery" would be the most fair and efficient way to ensure access to those people who want the procedure.[62] He argues that 'in the wider context of the allocation of scarce medical resources, noted benefits of a lottery system include its simplicity, that it is resistant to corruption, that it is egalitarian in the sense that each person in the pool of eligible recipients is given equal opportunity to "win the lottery", that it prevents small differences across individual candidates from generating drastically different outcomes, that lotteries can be quick in terms of decision making, and that they do not require a great depth of information about the candidates.'[63] Tonkens argues that in the case of UTx, there is no need to apply 'standard

[52] *Ibidem.*
[53] Lavoué, V., C. Vigneau, S. Duros, K. Boudjema, J. Levêque, P. Piver, Y. Aubard, T. Gauthier., Which donors for uterus transplants: Brain-dead donor or living donor? A systematic review, Transplantation 101(2), 2017, p 271.
[54] B. Bruno, K. Shah Arora, *op. cit*., p 7.
[55] M. Bergius, T. Mattsson, L. Wahlberg, *op. cit*., p 230.
[56] *Ibidem.*
[57] *Ibidem.*
[58] *Ibidem.*
[59] *Idem*, p 232.
[60] Swedish National Council on Medical Ethics, (SMER) S1985:A/2016/00675 2016-09-26.
[61] M. Bergius, T. Mattsson, L. Wahlberg, *op. cit*., p 233.
[62] R. Tonkens, Gatekeeping uterus transplants: a proposal for eligibility criteria and the fair allocation of wombs, International Legal and Ethical Perspectives on Uterus Transplantation, Edward Elgar Publishing Limited, London, 2024, p 140.
[63] *Idem*, p 141.

principles of distributive justice in healthcare', as 'UTx is not life-saving' and 'the potential recipients have the same goal and similar interests at stake, and people with AUFI are generally infertile to the same degree.'[64] Due to this, he also argues that it would be 'unfair to give priority to people just because they have been on the waiting list for longer than others.'[65] Thus, he concludes that 'random allocation is the fairest option, such as distribution of the available uteri to eligible recipients via a womb lottery.'[66] Michelle J. Bayefsky and Benjamin E. Berkman present a myriad of elements that must be considered when allocating uteri. These are: motivation to seek treatment, the age of the recipient, the child rearing capacity of the woman, and the amount of infertility treatment required.[67] Inequality in access to available uteri is a key consideration which must be addressed in UTx-specific legislation. According to Mustafa Akan, 'recognising the effects of health inequalities related to transplantation is important for underserved populations.'[68] It is therefore essential to determine potential inequities that could be brought forward when considering the implementation of UTx-specific legislation. The lottery system proposed by Ryan Tonkens could prove to be successful when it comes to this perspective.

Access to UTx for cisgender men is another key ethical consideration regarding this procedure. In a study conducted by Jabulile Mary-Jane Jace Mavuso, 'six cisgender men were interviewed about their desires to be pregnant and/or a gestational parent.'[69] The results of the study indicated that 'all but one said that they would not use a womb transplant to enable pregnancy.'[70] Due to these results, Jace Mavuso argues that normative sex/gender discourses would allege 'that most cis men would not take up the opportunity to become pregnant, and/or that womb transplant technology should not include cis men as recipients.'[71] However, Jace Mavuso argues against this, stating that the men's responses 'reveal the ways in which discourses frame understandings of ARTs, pregnancy, reproduction, parenthood, and sex/gender, and how these, along with the normative social practices described by participants come to bear on the reproductive desires and decision-making of the cis men in the study who would not utilise womb transplant technology to become pregnant.'[72] She goes on to argue that she does not 'believe the findings to be exhaustive of whether cis men desire to be pregnant, nor whether cis men would use womb transplant technology to enable their pregnancies' however, she claims that she believes 'that there are many more men who want to be pregnant, and who would be recipients of womb transplantation in order to do so, than is reflected in this study.'[73] She

[64] *Idem*, p 142.
[65] *Ibidem.*
[66] *Ibidem.*
[67] MJ. Bayefsky, E. Berkman, The Ethics of Allocating Uterine Transplants, Cambridge Quarterly of Healthcare Ethics, Cambridge University Press, Cambridge, 2016, p 353-361.
[68] M. Akan, Transplant health inequities research from an operations perspective, Health Sciences Review 11, 100176, Tepper School of Business, Carnegie Mellon University, USA, 2024, p 1.
[69] JMJJ. Mavuso, Repronormativity in cisgender men's reasons why they would not use womb transplant technology to become pregnant, Sociology Compass, Volume 17, Issue 2, e13054, Sociology Department, University of Pretoria, Lynwood, South Africa, 2022, p 11.
[70] *Ibidem.*
[71] *Ibidem.*
[72] *Ibidem.*
[73] *Idem*, p 13.

states that 'various groups of people are positioned as "illegitimate", and "undesirable" gestational reproducers, and therefore ultimately as non-gestational reproducers, if reproducers at all.'[74] She states that 'in particular, men (trans and cis), are assumed to have no ('real') desire nor real requirement of this form of reproductive assistance because they are men, an illogic that is underpinned by and reinforces the construction of masculinity as non-uterine and non-gestational.'[75] Jace Mavuso denounces the current medico-socio-cultural environment that would, in theory prevent men (trans or cisgender) to become pregnant through UTx if they would so choose to, arguing that 'the findings of this study require us to resist such "comfortable" and beguiling explanations, to push beyond the confines of repronormativity, including patriarchal logistics' claiming that 'doing so may put us in a better position to reckon with the fullness of repronormativity, including how it may shape cis men's desires to not receive a womb transplant (and any other technologies).'[76] As previously stated regarding access to UTx for transgender women, many provisions worldwide regarding ARTs are specifically created with access for women and women alone. UTx offers a unique way to gestate which could be physiologically available to those who identify as male. It is therefore essential to determine whether this procedure should be made readily available to those who desire to carry a child regardless of gender before implementing UTx-specific legislation. Access to all seems ethically permissible as long as technological advancements allow for this procedure to occur in people assigned male at birth (AMAB).

The principle of harm is another main ethical consideration regarding uterine transplantations. According to Gulzaar Barn, 'UTx seems to demand a peculiar harm' as 'live uterus donors divest themselves of an organ in its entirety and lose that organ's attendant functioning.'[77] This makes this procedure stand out from others usually tested through clinical trials, as 'no clinical trial using healthy volunteers exposes participants to drugs that would permanently stop the functioning of one of their organs, and no other living donor surgery removes a body part that cannot be replaced or regenerated.'[78] Due to this, 'UTx should primarily be viewed as a major transplant surgery rather than merely an assisted reproductive service, to correctly capture the novel harm at stake.'[79] Due to this, 'UTx raises novel concerns surrounding living uterine donation and harm that arguments for rights-based access must reckon with'.[80] This 'may problematise the function of consent as a normative transformer and undermine a rights-based justification for access.'[81] Barn argues that access to UTx could be morally acceptable through a negative right, stating that 'in the case of UTx, it seems plausible that a negative right to UTx might conflict with a negative right to be free from harm.'[82] However, the principle of harm may be balanced out and reduced by quality of life arguments. According to Roman Chmel et al, 'non-life-saving

[74] *Ibidem.*
[75] *Ibidem.*
[76] *Ibidem.*
[77] G. Barn, A right to gestate? Uterus transplants and the language of rights, International Legal and Ethical Perspectives on Uterus Transplantation, Edward Elgar Publishing Limited, London, 2024, p 72.
[78] *Ibidem.*
[79] *Ibidem.*
[80] *Idem*, p 73.
[81] *Ibidem.*
[82] *Idem*, p 72.

transplantations have been ethically justified based on the quality-of-life improvement.'[83] However, they go on to warn that UTx may differ from other non-life-saving transplantations such as facial or hand transplants due to 'the need of lifetime immunosuppressive agents.'[84] Furthermore, UTx recipients 'are exposed to several risks in the pre- and posttransplant periods' such as 'ovarian hyperstimulation syndrome', 'ovarian bleeding' and 'hemoperitoneum.'[85] The level of harm for both donors and recipients must be considered prior to enacting UTx-specific legislation.

The right to procreate, or more specifically for the purposes of this article, to gestate is a main ethical point surrounding the procedure of uterine transplantations. According to Gulzaar Barn, 'the question as to whether there is a right to procreate, under which a right to UTx may fall, can be situated in a broader debate that examines the coherence of moral and natural rights, as separable from legal rights.'[86] Barn analyses whether access to UTx could be covered by Article 8 of the ECHR.[87] He argues that 'to suggest that denying access to UTx would similarly infringe Article 8 seems implausible, as even in the absence of UTx, there exist other means to a family life' such as adoption.[88] A similar point is highlighted by Mianna Lotz, who states that 'adoption is not an appropriate solution for everyone who desires to be a parent, nor for every child in out-of-home care.'[89] Furthermore, due to the level of harm for both the donor and the donee of UTx, Barn argues that UTx is 'crucially different from other assisted reproductive technologies and may impose limits on an interpretation of the right to a family, gestation or genetic reproduction that relies upon this procedure.'[90] However, he points to the fact that 'for some people there might be no other ways outside of UTx to have a genetic family', such as people who are unable to access other forms of ART or adoption.[91] He argues that 'a right to have children might be distinguished from a right to be given access to the means necessary to have children.'[92] He claims that 'a positive right to UTx that involved forcible redistribution of reproductive materials or coerced access to reproductive means would of course be straightforwardly in conflict with other people's negative rights, and therefore unsustainable.'[93] However, 'a positive right could involve a weaker duty upon the state to fund research and facilitate the consensual donation of uteri.'[94] It is essential to determine whether the right to gestate could be seen as a right which falls under the ECHR, and if so, where UTx falls into this particular right. Whilst UTx offers a clear way to create a gestational and genetic family, it could be argued that this right does not give

[83] R. Chmel, Z. Pastor, J. Matecha, L. Janousek, M. Novackova, J. Fronek, Uterine transplantation in an era of successful childbirths from living and deceased donor uteri: Current challenges, Biomedical Papers, Medical Faculty University of Palacky Olomouc, Czech Republic, 2020, p 116.
[84] *Ibidem.*
[85] *Ibidem.*
[86] G. Barn, *op. cit*., p 61.
[87] *Idem*, p 63.
[88] *Ibidem.*
[89] M. Lotz, Uterus transplantation and adoption in the empirical and normative context: the question of alternative parenthood modalities, International Legal and Ethical Perspectives on Uterus Transplantation, Edward Elgar Publishing Limited, London, 2024, p 54.
[90] G. Barn, *op. cit.*, p 64.
[91] *Idem*, p 70.
[92] *Idem*, p 71.
[93] *Ibidem.*
[94] *Ibidem.*

automatic access to the limited supply of uteri available worldwide and it does not answer the question of who should have access to uteri.

Conclusion

In conclusion, it is essential to create legislation pertaining specifically to uterine transplantations. Given the growth of UTx operations and subsequent births worldwide, it is essential to create legislation which ensures equality and accessibility for all. Sweden's current legislation regarding the procedure seems to be the most effective to date, as it takes the non-regenerative nature of organs into account. However, the level of harm that the procedure entails is not efficiently covered. UTx in Lebanon offer a unique approach to this procedure, as it is a country with limited access to ARTs and its population sees gestational parenthood as an integral part of family life. It is a clear example of why UTx-specific legislation is required, and should not be lumped together alongside other ARTs, as most other procedures would be impermissible in such societies. The United States' current stance on abortion the limitation to women's access to healthcare also highlights the need for UTx-specific healthcare. In-vitro fertilisation, which is an essential component of UTx, is being challenged in the country, which would, in turn, limit access to UTx. However, the current culture wars taking place in different states across the country may lead to internal medical tourism, with some women crossing state lines in order to access ARTs. This could be seen as a negative of the suggestion to create UTx-specific legislation, as it may create inequalities in federal jurisdictions. It is also essential to establish equitable access to UTx for transgender women, which would in turn mean creating either UTx-specific legislation, or a complete overhaul of legislation regarding ARTs.

Key ethical considerations, such as deceased donations, fair distribution, access to cisgender men, the principle of harm, and the right to gestate must also be considered before the implementation of UTx-specific legislation. The consideration of these debates will ensure equitable access for all who wish to access this procedure.

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