ISODP International Society for Organ Donation Professionals

The Transplantation Society a Section of

The Canadian Donation and Transplantation Research Program
Programme de recherche en don et transplantation du Canada

JOURNAL WATCH

INTRODUCTION

In this issue of ISODP's journal watch, we have reviewed six articles for you. We enjoyed uncovering these articles and summarizing them for you. They were all well done and interesting, highlighting valuable insight and reflective of good quality research.

Two papers look at the impact of deemed consent. A global public health paper looked at the impact of policy change to an opt-out system of consent in 5 countries with more than 20 years' worth of data and showed no improvement in donation rates linked to the opt-out policy implementation. On a granular level, a Canadian study looked at what the families of potential donors knew and felt about the law change as it related to deemed consent in that province. The policies seem far removed from what the families understand about them. The healthcare team's engagement with the family remains the takeaway from both papers.

There is a paper showing excellent 10-year patient outcomes following controlled donation after circulatory death in the setting of euthanasia from the Netherlands. Research and ethical discussions are necessary to optimize donation pathway.

A French paper looks at (and acknowledges in the title) the tension between withdrawal of life sustaining treatment and controlled donation after circulatory death. We must engage with our ICU nurses in this decision making and implementation space.

The potential for donation after circulatory death to expand the donor pool is looked at in two different studies. In Slovenia, a potential doubling of deceased donation rates is postulated from an analysis of a national out of hospital cardiac arrest registry. Admittedly, a near-perfect uptake from donor identification is needed to achieve that improvement scale.

In South Korea, in the ICU setting, a similar study looked at end of life care and circulatory death determination practices in assessing the potential for controlled donation after circulatory death. The study showed a lower potential likely linked to end of life care practices and ICU physician comfort with death certification. A need for guidelines and standards in both spaces was identified. Establishing practical guidelines supporting withdrawal of life sustaining treatment and circulatory death determination by relevant medical societies and institutions seems crucial in South Korea.

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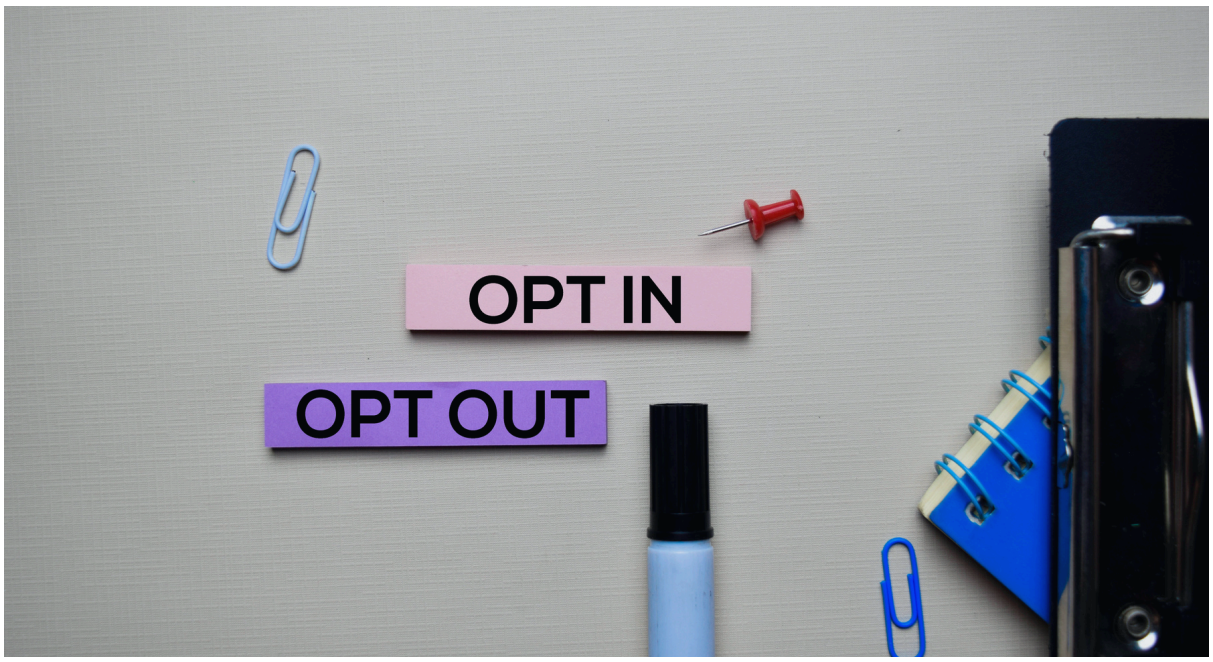

Opt-Out Defaults Do Not Increase Organ Donation Rates

Dallacker, Mattea et. al

Public Health, 20 September 2024

Corresponding author: Ralph Hertwig - hertwig@mpib-berlin.mpg.de

In this longitudinal retrospective analysis of 5 countries (Argentina, Chile, Sweden, Uruguay and Wales) that had changed their organ donation policy from the opt-in to the opt-out donation policy the authors conducted a Bayesian binomial regression to draw the conclusion contained in the title.

Presumed consent policies are often thought to be an effective step to address organ donor shortages. Even in the opt-out system, families are still consulted about the donation process and can potentially override presumed consent. Previous literature has varied in the postulated impact of policy change to an opt-out system with a growing body of evidence showing minimal impact. This study adds to this evidence with a consistent finding across all the countries over at least 20 years of data.

Interestingly, only 5 of 39 countries with “presumed consent” / “opt-out” could be included. Either because their policy was less than 2 years old at the time of the analysis or because their policy was implemented before 1996 and reliable registry data was available. The COVID-19 pandemic, which resulted consistently in the reduction of deceased persons’ organ donations reflected in the data but did not impact the analysis.

Ultimately, donation trends remained unaffected before and after the policy change in these five countries. Suggestions were to improve healthcare infrastructure and public awareness campaigns, which would help prevent the lack of knowledge of the deceased family members, thus helping to reduce the observed consent objections that occur in both consent systems.

Summary prepared by Dr. Lulama Luthuli

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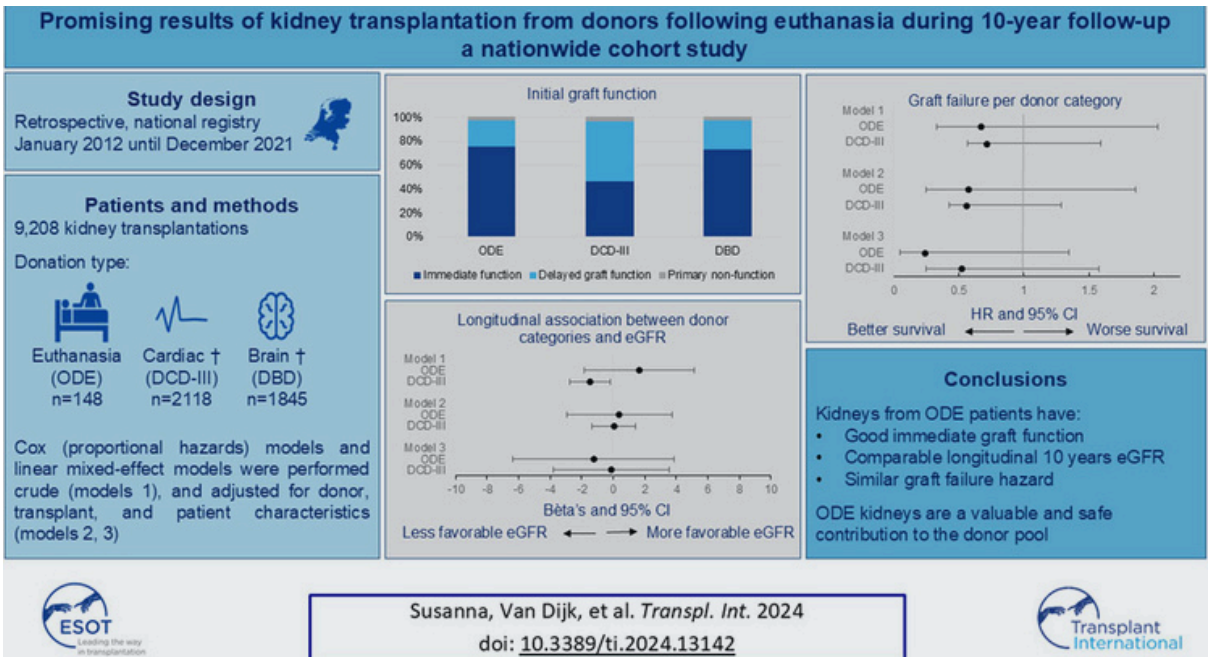

Promising Results of Kidney Transplantation From Donors Following Euthanasia During 10-Year Follow-Up: A Nationwide Cohort Study

Susanna, Charlotte et. al

Transplant International, 17 October 2024

Corresponding author: Nathalie van Dijk – n.van.dijk@mumc.nl

This nationwide cohort study evaluates the outcomes of kidney transplantation from organ donors following euthanasia (ODE) compared to those outcomes from controlled donors after circulatory death (DCD-III) and brain death (DBD) over a 10-year period in the Netherlands. Of the 9,208 transplants performed between 2012 and 2021, 148 were from ODE donors. The study assessed immediate graft function, estimated glomerular filtration rate (eGFR), and graft failure.

The outcomes were excellent. ODE kidneys demonstrated a 76% immediate graft function rate, surpassing DCD-III (47%) and matching DBD (73%). ODE recipients also had shorter cold ischemia times than DBD, potentially contributing to favorable outcomes. Over 10 years, eGFR values and graft failure rates were comparable across all donor types after adjusting for donor and recipient characteristics, ischemic times, and comorbidities. The study also highlighted the not insignificant contributions of organ donation after euthanasia to the donor pool. In 2023, 15% of DCD donors in the Netherlands were after euthanasia.

The authors note that the complex ethical concerns come with variability in physicians' and hospitals' willingness to participate in the process, but while ethical and logistical considerations remain, the findings do support the integration of ODE into routine practice.

Kidneys from ODE donors do offer comparable outcomes to traditional donor categories, emphasizing their value in addressing organ shortages and providing a compassionate extension of patient autonomy at the end of life. Continued research and ethical deliberation are essential to optimize the implementation and societal acceptance of this donation pathway.

Summary prepared by Dr. Hloni Bookholane

Open Access - READ ARTICLE

Nova Scotia's Deemed Consent for Deceased Organ Donation: Family Member Perspectives and Experiences in the ICU Setting

Sarti, Aimee et al.

Transplant Direct, October 10, 2024

Corresponding author: Aimee Sarti - asarti@toh.ca

This article reviews the experience of family members of potential organ donors following the implementation of Nova Scotia's deemed consent law under the Human Organ and Tissue Donation Act in January 2021.

A qualitative descriptive study from 16 donor interviews after both brain death and circulatory death was invited to participate in the study. A total of 17 family members consented to be interviewed.

There were major differences in the understanding and awareness of the legislation. Some had no awareness, and others had some awareness but no understanding of how the legislation worked. Others expressed optimism about the potential benefits of this law, while others expressed pessimism about the legislation's ability to change donation rates.

The interaction with healthcare teams in the intensive care unit was deemed to be critical in shaping the family experience. The families appreciated an enhanced supportive mechanism to build trust. Barriers to donation highlighted in the interviews included challenges with waiting times, logistics and complex consent processes.

While there may be bias in who agreed to be interviewed (2 cases did not proceed to consent), the family members interviewed felt well supported and viewed the donation experience positively.

Family inputs in consent legislation and ongoing research on consent are focal points for improving donation systems.

Summary prepared by Sr Bongise T Ndamase

Open Access - READ ARTICLE

Tensions between end-of-life care and organ donation in controlled donation after circulatory death: ICU healthcare professionals experiences

Le Dorze, Matthieu et al.

BMC Medical Ethics November 2024

Corresponding Author: Matthieu Le Dorze - matthieu.ledorze@aphp.fr

The "development of controlled donation after circulatory death (cDCD) requires the support and the involvement of ICU healthcare professionals and a shared understanding of the trade-offs between end-of-life care and organ donation in the ICU."

In this prospective multicentre observational study from 32 ICUs in France ICU physicians' and nurses' experiences with controlled cDCD were assessed. A total of 206 (79 physicians and 127 nurses) ICU healthcare professionals (HCP) completed questionnaires for 79 potential cDCD donor situations. HCP anxiety was assessed with a formal anxiety assessment tool and the tensions between end-of-life (EOL) care and organ donation were rated using a 10 point scale over 28 additional questions. HCP attitudes were assessed across 2 groups of patients undergoing withdrawal of life sustaining treatment (WLST) - those for donation and those not for donation. All were potential donors at one point.

The authors showed that cDCD did not increase anxiety compared with other situations of WLST, and all reported low states of anxiety during WLST situations with and without cDCD.

Tensions between EOL care and organ donation did exist and more so for ICU nurses than physicians. Theses tensions were examined in 3 stages:

1) Decision making process leading to WLST: Nurses felt that organ donation was a factor influencing the decision for WLST. This result may be explained by the fact that nurses are less directly involved in the WLST decision and / or a lack of communication within the teams.

2) The period between decision and implementation: For all HCP this period was focused on supporting the relatives.

3) Death and dying process: 85% of WLST in cDCD patients happened within the ICU. The presence of relatives was perceived as beneficial by almost all healthcare professionals for both patient groups. Nurses felt that the purpose of WLST was more focused on organ donation than EOL support, however both physicians and nurses perceived that the attitude of the people in the room was appropriate.

Overall, cDCD is positively perceived by all HCPs. cDCD is already challenging with regards to logistical, technical and ethical issues. This study from a setting with established EOL pathways and well integrated cDCD (more than two thirds of responses were after cDCD cases) highlights the importance of clarifying intentions between EOL support and the possibility of cDCD when caring for a potential donor, together with the importance of clear communication amongst nurses and physicians caring for the patient and family.

Summary prepared by Dr Asma Salloo

Open Access - READ ARTICLE

Uncontrolled Donation Potential After Circulatory Death in Slovenia Could Lead to More Organ Donations: Extrapolation of SiOHCA Study Data

Kulovec, Domen et al.

Inquiry, October 16, 2024

Corresponding author: Luka Petravić - lpetravic@me.com

This retrospective non-interventional study conducted in Slovenia from September to November 2022 analysed the Slovenian Out of Hospital Cardiac Arrest (OHCA) registry, to assess the potential of impact starting uncontrolled DCD (uDCD) on donation and organ transplantation rates.

Out of Hospital Cardiac Arrest (OHCA) is a major healthcare problem faced worldwide. With 275000 people suffering from OHCA in Europe annually, with a survival rate between 6-22%, the patients not surviving may be considered to support donation and expand the pool of donor organs available and significantly reduce waiting lists.

During the study period, there were 294 OHCA in Slovenia. After the inclusion and exclusion criteria for uDCD were met, using 29 variables from the registry and as per standards from the European Committee on Organ Transplantation, 19 cases were assessed as eligible for donation. After extrapolating the entire population over 2022,it was determined that there could have been 111 additional donors in Slovenia from uDCD criteria in 2022.

For a country with a small population, this would equate to an increase of up to 52.4 deceased donors per million of the population per year (pmp/y). This is significantly higher than the recorded number of deceased donors in Slovenia in 2022 at 26.54 pmp/y. This would equate to 222 more kidneys and 111 livers for transplantation in perfect conditions. Despite the identified potential, there were no actual donors in the cohort due to the absence of a formal uDCD program in Slovenia.

A major caveat of this study is that these values are extrapolated from an OHCA registry data and assume an ideal situation. Limiting factors to the rate of uDCD include time to initiate cardiopulmonary resuscitation (CPR), which as per European Guidelines, needs to be within 15-30 minutes of arrest. In addition to this, warm ischaemia time should not exceed 150 minutes. An efficient emergency medical service (EMS) and combined with bystanders able to provide effective CPR with rapid transport to the nearest appropriate facility is needed. Downstream logistical considerations including: doctors failing to identify or refer eligible donors, failure to confirm circulatory death within the required timeframe, logistical challenges, and a shortage of suitable recipients, would likely reduce the effect estimates. Cost was not assessed.

In summary, an interesting study highlighting uDCD as an untapped potential for organ transplantation. A doubling of the donor rate seems overly optimistic however with logistical and implementation challenges. However, a well-established network and partnership between EMS services and selected hospitals may help start to tap into a real potential donor source from the healthcare system.

Summary prepared by: Eshkilan Naidu

Open Access - READ ARTICLE

A multicenter observational study to establish practice for circulatory death declaration for organ donation in South Korea

Young Lee, Han et al.

Scientific Reports, October 24, 2024

Corresponding author: Jae-myeong Lee - ljm3225@hanmail.net

This South Korean multicenter prospective observational study, from April to December 2021, aimed to determine the proportion of patients that are suitable for organ donation after circulatory death following withdrawal or withholding of life support in the ICU in Korea. In addition, they aimed to evaluate the practices and criteria used by critical care physicians for declaring the death of a patient in this setting through a survey.

This study assessed 177 patients as reaching medical futility from 1331 patients dying in the 19 ICUs studied. When assessed for potential donation 20 (11.3%) of these patients were deemed medically suitable as potential donors after circulatory death.

In the survey of death determination practices, a flat ECG trace was more consistently used(99%) than a flat A-line (85%) or loss of pupillary response (46%). In 116 (73.9%) patients, signs of death were noted to be by a persistent asystolic rhythm within 5 min after the loss of a pulse. In the survey, only 59% of the physicians felt the '5-mins, no-touch' period for the declaration of circulatory death was sufficient.

The authors conclude, and this highlight shows, that establishing practical guidelines for withdrawal of life sustaining treatment and circulatory death determination by relevant medical societies and institutions is crucial in South Korea.

Summary prepared by Dr. Lulama Luthuli

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