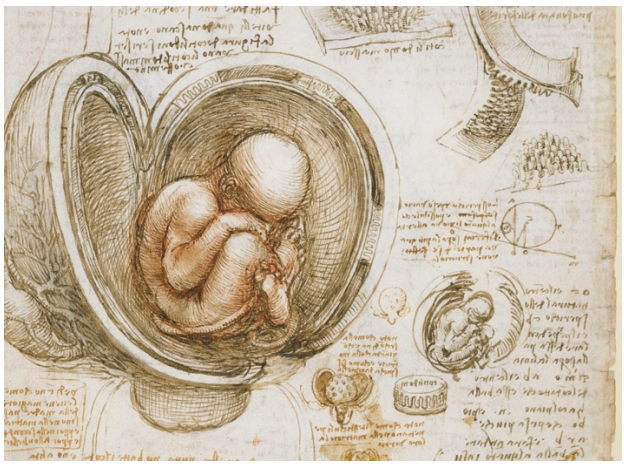

Organ Procurement Initiatives and the Sacredness of Human Life: A Christian Perspective

Iniciativas de Obtenção de Órgãos e Santidade da Vida Humana: Uma Perspectiva Cristã

Iniciativas de Obtención de Órganos y lo Sagrado de la Vida Humana: Una Perspectiva Cristiana

Allan H. ROBERTS II[1]

Abstract: The practice of organ procurement for transplantation is deeply engrained in the consciousness of the public worldwide, and is endorsed by most religions including Christianity. With the advent of the life-saving successes of organ transplantation have come a number of ethical issues, including those concerning efforts to balance the needs of potential organ recipients with those of possible organ donors. In this paper, I endorse current organ procurement procedures; I then describe several changes to current practice that have been suggested. I contend that each of these proposed innovations creates an imbalance regarding the Christian tenet of the absolute sacredness of all persons.

Resumo: A prática de aquisição de órgãos para transplante está profundamente enraizada na consciência do público em todo o mundo e é endossada pela maioria das religiões, incluindo o cristianismo. Com o advento dos bem-sucedidos transplantes para salvar vidas, surgiram várias questões éticas, incluindo as que dizem respeito aos esforços para equilibrar as necessidades dos potenciais receptores de órgãos com os possíveis doadores de órgãos. Neste documento, endosso os procedimentos atuais de aquisição de órgãos. Descrevo várias mudanças na prática atual que foram sugeridas e afirmo que cada uma dessas inovações propostas cria um desequilíbrio em relação ao princípio cristão da santidade absoluta de todas as pessoas.

Keywords: Organ Donation – Sacredness of Human Life.

Palavras-chave: Doação de Órgãos – Sacralidade da Vida Humana.

[1] M.D., M.Div., M.A, Professor of Clinical Medicine, Georgetown University Center, *E-Mail*: ahr8@gunet.georgetown.edu. The opinions in this paper are those of the author and do not represent those of Medstar Health or Medstar Georgetown University Hospital.

ANGOTTI NETO, Hélio (org.). *Mirabilia Medicinæ* 10 (2018/1).
Humanidades Médicas: Arte e Vida
Medical Humanities: Art and Life
Humanidades Médicas: Arte y Vida
Jan-Jun 2018/ISSN 1676-5818

RECEBIDO: 07.08.2018
APROVADO: 02.10.2018

***

Introduction

A frequent scenario in the intensive care unit involves the care of a patient who has suffered traumatic or anoxic brain injury and has progressed to a possible state of brain death. Clinical energies which have heretofore been focused on saving life are shifted to confirming a legal status of death. Standard procedure, in these circumstances, involves informing the regional Organ Procurement Organization, or OPO, that a patient is thus afflicted and will be tested for brain death. The OPO, in turn, will decide as to the suitability of the patient to be an organ donor. The OPO, one might say, has not one patient in front of them, but hundreds, and many of these will die, should they fail to receive an organ by donation.

In this moment, imperceptibly, the physician's thought process makes a transition which was unknown to medical practitioners a mere four decades ago but which is now second nature, namely, from the focus at the bedside upon the patient for whom we are caring, and upon that patient alone, to a much more numerous group of patients who, our culture and laws have determined, should now consume our energies, though they are not specifically 'our patients.' The moment of death, with all its cultural and religious observances, thus has been tied inextricably to the practice and profession of organ procurement and transplantation. A physician may no longer attend to the one and not the other. Much – and for many - hangs on the anticipation of death, and on how death is determined.

For whom, then, is the physician to care in this sad hour? The one patient in front of him? Or the many who are not, but who are, if you will, 'in front of' the community at large? How, finally, should these patients be prioritized in the mind of the physician, of the medical profession, and of public policy?

In Christian thought, the question ultimately and necessarily intersects with the matter of sacredness. David Gushee writes:

> Human life is sacred: this means that God has consecrated each and every human being – without exception and in all circumstances – as a unique, incalculably precious being of elevated status and dignity. Through God's revelation in Scripture and incarnation in

> Jesus Christ, God has declared and demonstrated the sacred worth of human beings and will hold us accountable for responding appropriately. Such a response…includes offering due respect and care to each human being we encounter.

What, finally, does sacredness have to do with the patient and the patients in question?

Despite the fact that the practice of organ transplantation is deeply engrained in our cultural experience, ethics literature suggests that the public has significant misconceptions as to the definitions, processes, and ethics surrounding organ procurement. This essay will provide a brief review of fundamental concepts which are integral to the organ procurement process and will identify several evolving theories of organ procurement practice which introduce potential ethical dilemmas, to which the question of sacredness is germane.

I will contend that current practice, including the definitions of and criteria for death as well as end-of-life care and organ procurement as these are legally practiced, are valid, and, despite controversies, represent the most balanced practice standard attainable. Pre-suppositional to my argument is the Christian assertion, articulated by Gushee, that every human life is uniquely, absolutely, and infinitely sacred; I will therefore further contend that any movement away from contemporary practice involves an imminent threat to theologically grounded concepts of personhood, sacredness, and dignity.

The practice of solid organ transplantation began in earnest in the twentieth century; by the1950's surgeons had performed kidney transplants from living donors to blood-relative recipients; the first long-term transplant successes were between identical twins. Major challenges to the transplantation process included the perfecting of surgical and anesthetic techniques, the modulation of the recipient's immune response, and finally, the optimization of donor organ preservation and viability.

In the 1980's, the advent of the immune-suppressing drug cyclosporine permitted the exponential survival and quality-of-life of organ recipients, and transplantation exploded onto the consciousness of the world. Soon there would be a dramatic rise in the demand for transplantable organs relative to the number of organs available, and against this supply-demand backdrop the complex challenge of optimizing organ preservation and viability assumed center stage and remains there today.

According United Network for Organ Sharing (UNOS), nearly 650,000 solid organs have been transplanted between 1988 and 2015. Approximately 122,000 patients are currently on an organ wait-list, and thousands die annually, on that list. The weight of peer-reviewed literature indicates an unequivocal survival and quality-of-life benefit in recipients of all types of solid organ transplants; the law and prevailing public sentiment support the entitlement of patients to the possibility of a cure by means of transplantation. The dialogue among medical practitioners, the presence and influence of the OPO, the weight of the law – all favor the procurement of organs for those who are in such deep and abiding need. The ethical merit of transplantation as a practice, per se, therefore, never seems to be in question. To put it another way, the worthiness of potential recipients has priority status.

The practice of organ transplantation is embraced by most religions and is endorsed by most Christian traditions. Altruistic donation of a paired organ is lauded in terms of sacrificial love for those suffering and in need, and of serving the good of humankind. Thus, the recognition of the great good of organ transplantation for so many patients is firmly established in the medical literature, and in the mind of the secular and religious public.

Strategies to close the supply-demand gap include the designated donor (driver's license) program, programs of altruistic living donation of a kidney or a portion of a liver, or through deceased donor donation. Survival of the implanted organ is unequivocally better following living donation, and better still following living-related donation. However, these programs have failed to close the gap, or to shorten patients' time on the list; hence the practice emerged of procuring organs from deceased donors.

In the United States, approximately 90% of deceased organ donations occur following the diagnosis of brain death. Brain death is understood in current practice to mean "whole-brain" death; that is, all higher functions of the brain, such as consciousness, have been irreparably lost, along with deeper brain functions including the locus of respiratory drive.

Ten percent of deceased organ donation occurs in a process of Donation after Cardiac Death (DCD), whereby a patient with deep coma (but not brain death) or irreversible and relentless decline in bodily functions, will, with the consent of his or her next of kin, have life-sustaining measures discontinued in a controlled setting, in the operating room. Following death (established by the cessation of cardiac function

for a period of 5 minutes), organs are procured. The practices of organ procurement after brain death or DCD have ethical endorsement from both Catholic and Protestant scholars.

Protocols for establishing a diagnosis of brain death are described elsewhere. Despite documented inconsistencies in the adherence to these protocols, the practice of determining death by a whole-brain death criterion is deeply entrenched in cultural, religious, and legal thought. Death determined by whole-brain criteria is held, by the Uniform Declaration of Death Act (UDDA) to be legally and morally the equivalent of death as determined traditionally by cardio-respiratory criteria. The Dead Donor Rule, "an informal, succinct merging highlighting the relationship between (…) the UDDA and state homicide law," holds that no organ may be procured from any patient whose death has not been established by one or the other of these criteria. Contemporary medicine in the U.S. has been practiced according to this standard for decades. Similarly, DCD practice is well established, if not deployed as frequently for procurement purposes.

What are the ethics of organ procurement? The patient who needs a transplant has priority status, in the mind of the public, and the clear momentum of legislative philosophy and clinical practice is in the recipient's favor. In a culture and a profession so deeply sensitive to the sacredness of the recipient, I identify three movements in organ procurement strategy in the United States which pose a threat to the sacredness of the patient who might become a donor.

1. Relative Sacredness

The first tier of threat is quietly imbedded in the aforementioned priority of the needs of the potential recipient exclusively. Consider a paper published in a leading critical care journal in 2013 by Alberto Orioles and co-workers: "An Under-recognized Benefit of Cardiopulmonary Resuscitation: Organ Transplantation." The authors state that because many patients who suffer cardiac arrest do not have long term survival, "(f)or some of these patients, evolution [sic] to donation of organs may become an option." Traditionally, options and benefit are ascribed to a patient who exercises or receives these, respectively. Here, rather, benefit is assigned to the patient who sustains the cardiac arrest. One wonders how that person can possibly benefit; the tangible benefit, in this case, is certainly intended by the investigators for organ recipients. On this paradigm, benefit is inevitably based upon an independently assigned quality-of-life metric, which asserts, finally, a value-laden determination that

the donor has a poorer quality of life, and therefore lower relative worth, than the recipient.

The great good of organ transplantation, then, has provided the very matrix for the first threat to the sacredness of every human life: that of the assignment, by the transplant enterprise, the medical profession, and the public, of relative worth. Upon a relative worth designation depends each subsequent threat.

2. Designated Personhood

Robert Veatch is professor emeritus of ethics at Georgetown University, a pioneer of the study of the ethics of transplantation, and a long-time critic of the 'whole-brain' criterion for death. Veatch has written a comprehensive and readable review of the scientific and ethical issues surrounding the contemporary practice of brain death and organ transplantation in Transplantation Ethics, now in its second edition, in which he continues his long-standing polemic against the whole-brain criteria for death, which necessitates the concept that the brain is the locus of integrative function of the body, regarding which, he observes that the anatomic locus for the criterion is arbitrary. After all, many bodily functions continue, and seem to be integrated even in the presence of brain death, as long as the patient is sustained by mechanical ventilation and enteral nutrition. Veatch's concerns, however, are answered by neurologist James Bernat, who notes that these 'integrative' phenomena may be attributable to "isolated nests of neurons" whose viability and function "no longer contribute to the functioning of the organism as a whole." Indeed, at the moment of death as traditionally understood (and pronounced by cardio-respiratory criteria), individual cells may continue to live for a short period of time. Pathological studies of patients who have suffered brain death reveal a non-homogeneous distribution of pathological findings along a spectrum from minimal damage to complete necrosis, and anecdotal reports of autopsies performed on patients with brain death who had been sustained on a ventilator for years disclose widespread necrosis of the entire brain. The semantic issues surrounding a patient who is legally dead by brain death criteria, but whose body continues to "live" (albeit extrinsically supported), are inevitable; it is necessary for physicians to clarify terminology, with great sensitivity, for bereft family members at the bedside of their loved ones.

Veatch offers an alternative to defining death by only two criteria (whole brain or circulatory), and proposes a revised criterion for establishing death that is based on a concept of 'personhood,' whereby death may be defined as the "irreversible loss of

embodied capacity for consciousness." He calls this criterion the higher-brain concept of death, and states, "This would make those who have lost all functions of the entire brain dead, of course; but it would also include those who lack consciousness, which includes the permanently comatose, the permanently vegetative, and the anencephalic infant to the extent that these groups can be identified." From these patients, when consent is given by advance directive or by a surrogate decision maker, organs for transplantation could be procured. Veatch insists that a move to change the law from the current whole-brain criterion to a higher brain criterion is essential in order to clarify and standardize the definition of death, and to improve the availability of organs for transplantation and has recently published an elaboration of what he calls 'the conscience clause,' whereby a patient may similarly decide or have decided for them the criteria (whole cardio-respiratory, whole brain, or higher brain) by which they wish their doctors to declare them dead.

Veatch acknowledges that the current state of technology (which, ideally, would render an unequivocal differentiation of reversible from irreversible forms of coma) is yet imperfect. For example, a provocative study was published in Science in 2006 in which Owen and coworkers evaluated a patient - who had an independently confirmed diagnosis of Persistent Vegetative State (PVS) - with state-of–the-art neurophysiologic imaging techniques. They found that when verbal stimuli (such as asking the patient to imagine playing tennis or walking through her home) were given to the patient, brain activity was detected on the imaging studies which did not differ from that seen in similarly stimulated normal volunteers. Such findings, while anecdotal, indicate that our knowledge of brain function in the vegetative state and other forms of coma is incomplete, and that we are ill advised to declare to be dead a person who may yet enjoy a stroll through her house, albeit a 'virtual' one.

But the threat to sacredness here is not located in the inadequacy of current technology, but rather in the concept of personhood that is applied by Veatch to patients. On this construct, a patient's personhood is located in, and defined by, a sustainable and recoverable conscious state. I have argued elsewhere that such an arbitrary designation of personhood cannot be endorsed by Christian theology generally nor by Eastern Orthodox theology specifically.

3. Compassion and Autonomy Wrongly Conceived

The next movement in organ procurement strategy comes from Robert Truog, Professor of Medical Ethics, Anesthesiology & Pediatrics at Harvard Medical School.

Truog similarly disagrees with the current brain death criterion and practice. Like Veatch, he cites the problematic nature of declaring death when certain bodily functions continue to live, if supported artificially; he concludes that the whole brain death criterion is disingenuous in its inception and is misleading to the public.

Truog refutes both the current practice of declaring death by whole brain criterion and Veatch's proposed higher brain criterion. Instead, he holds to the cardio-respiratory definition of death; however, in the interest of procuring optimally viable organs for transplant, he proposes an option whereby a patient who is dying, and who has so indicated via advance directive or by surrogate consent, may undergo death by organ donation. Morally, according to Truog, the causing of death for the purpose of procuring organs is justifiable. And he goes a step further in terms of linking more formally the establishment of death with organ transplantation, with his proposed revocation of the Dead Donor Rule, stating that there is no moral prerequisite for patients to be dead before procuring organs. His proposal provides, for patients who are dying in the ICU or their surrogates, to authorize 'death by donation,' whereby they would die following – and as a direct result of - an intentional organ procurement performed under general anesthesia. Organs that are optimally viable may be procured; physicians and other providers who are involved in the process would be immune from prosecution for murder or complicity. Homicide laws would need to be modified. The proposed death-by-donation process holds that a patient's autonomy has primacy among ethical principles, and would involve, fundamentally, the legalization of euthanasia by donation.

To be sure, organ donation euthanasia has been pioneered in Europe, where the practice of euthanasia and Physician-Assisted Suicide (PAS) are legal in several countries, and a Dutch "practical manual" for organ procurement euthanasia has been published in American transplantation literature.

Philosopher-bioethicist Julian Savulescu of Oxford, and his colleagues explore options designed to increase the availability and viability of organs for transplantation. They propose several philosophical and technological interventions. Philosophically they endorse programs of organ conscription (that is, a policy of commonwealth-entitlement to all organs of the dead or dying - including proposals to remove surrogate veto authority). Technologically, under such a policy, they would be free to deploy more aggressive techniques of procurement-euthanasia, which would take such forms as cardiac euthanasia (whereby organs would be procured from patients under general anesthesia, with death ensuing after removal of the heart), and neuro-

euthanasia (euthanasia would be accomplished by occlusion of blood vessels to the brain, causing brain death). They also endorse a modification of the DCD program, whereby a shorter period of asystole (absence of heartbeat) would be required to pronounce a patient dead. Of these, the authors ascribe "maximal utility" to a policy of organ conscription. Savulescu's contribution to the organ procurement enterprise, then, takes Truog's proposals to their necessary conclusion, particularly under a state-sponsored entitlement to organs as commodities.

There exist, then, three schools of thought that are either currently engrained into the transplant enterprise or loom on the horizon; each purports to increase available organs and each poses a threat to the absolute sacredness of every human life. The current momentum of care, prioritizing potential organ recipients, necessarily places a relative – and diminished - value on the potential organ donor as person. Advocates of the higher-brain criteria for defining death invoke a definition of personhood that they themselves have established. Advocates of death-by-donation set individual autonomy as the driving ethical principle and sole criteria for decision-making. Others still would declare organs belonging to the dead and dying to be the philosophic property of the commonwealth and would deploy techniques that would expedite death in the process of procurement-euthanasia. Others would skirt standard processes of informed consent in an effort to preserve a commodity.

Considerable scholarship from all religious traditions endorses the practice of organ donation, and the faithful may donate a paired organ altruistically while alive, and may designate donation of paired or unpaired organs after death. Among Christians, Reformed and Evangelical scholars are united with Catholic and other traditions in accepting the whole brain criterion for death as definitive in order that organ procurement may proceed. Christians therefore may in good conscience and in good company affirm the validity of organ procurement and transplantation as these are currently legally practiced, and similarly may affirm that death may be established by either cardio-respiratory (including DCD) or whole-brain criteria.

The Christian must be aware of and responsive to the needs of all who suffer, among whom are those who suffer from end-stage organ disease, who, in need of a transplant, languish interminably on a list. But the Christian physician must concern himself with the one patient before him, and with that patient alone, and preserve, as best as he is able, the sacredness of that one patient, manifest by doing that which is best for that one patient. Benefit must be understood, in the mind of the Christian physician, to be benefit for that one patient. No conceivable medical condition of any

patient renders that patient less sacred and therefore less worthy of our full efforts. Some of our patients will go on to be donors, others will not. At their bedside, that decision must not be our concern. To do otherwise opens the door to our patients' sacredness being made relative, rather than absolute. At such time as a decision has been made by a patient's family, and following current practice guidelines, the physician must – while working in concert with the OPO to facilitate organ procurement – simultaneously remain the advocate and guardian of the sacredness of his patient-become-donor.

Veatch's assignment of personhood should give pause. Personhood, in a Biblical and Christian theological understanding, embraces, but is not limited to, a measurable aspect of biological life, as Veatch would have us believe. We are created in God's image, and remain so, even in deep coma, minimally conscious state, or so-called vegetative state. There exists no Biblical, Patristic, or theological precedent for an assertion that the imago Dei is contingent upon the presence of a conscious state, or that it ceases to obtain except upon death. B. Holly Vauter has written, "When an ethic which endorses life is replaced by an ethic of selective personhood, people are valued on conditional terms." Further, "[T]he classification of human beings as non-persons opens a door to a utilitarian ethics in which medical treatment is granted or denied on the basis of quality of life or economic criteria."

Conceivably, Christians could be tempted to embrace the utilitarian agenda of Truog. A patient who is dying may see himself serving his fellow man by altruistic donation that is made during, and even results in, his very death. Altruistic and living related donation of paired organs is practiced legally and endorsed by Christians; altruistic donation of all organs, including the heart, near the time of death, could be understood as the natural extension of this practice. Certainly, one could point to Christ's own sacrifice of His body for others. However, an appropriation of the crucifixion narrative to endorse 'death by donation' is unlikely to hold up under hermeneutic scrutiny.

Truog's position endorses active euthanasia, which must be understood unequivocally by Christians to be in violation of the Sixth Commandment, Biblical and Patristic teaching, and the unified Christian theological tradition of two millennia. Undoubtedly it will be argued that by permitting good to come out of suffering, in the form of organ donation by euthanasia, one's suffering will have tangibly redemptive value. Such an argument is necessarily linked to the concept of patient autonomy.

Truog's proposed euthanasia strategy works on a narrowly defined utilitarian ethic of the greatest good for the greatest number. Savulescu and his associates have entered through the door that Truog has opened, to propose a utilitarian ethic for organ procurement that would remove even the autonomy of the patient or his surrogate in the interest of 'greater good.' But autonomy is not without boundaries, in Christian thought. Edmund Pellegrino states,

> [I]n ethics generally and medical ethics in particular, autonomy, freedom, and the supremacy of private judgment have become moral absolutes. On this view, human freedom extends to absolute mastery over one's life, a mastery which extends to being killed or assisted in suicide so long as these are voluntary acts. It is a right, it is argued, that should be protected by law and physicians should be authorized to satisfy such requests. For the Christian, this is a distorted sense of freedom that denies life as a gift of God over which we have been given stewardship as with other good things.

Christians will share with all mankind traits of compassion and care for those who are suffering. Where Christians must take issue with Truog is on the moral status that can be assigned to compassion. "For the humanists," says Pellegrino, "the emotion of compassion becomes the principle of justification. [Compassion] is a laudable emotion and motivation, but, by itself, is not a moral principle, a justification for whatever action appeals to the moral agent as compassionate. Compassion should accompany moral acts, but it does not justify them. Compassion cannot justify intrinsically immoral acts like usurping God's sovereignty over human life." That is, the quality of compassion, sufficiently strong to motivate a patient's or individual's desire altruistically even to give his life to provide an organ or organs for donation, must not serve as a guiding moral principle which would permit suicide by the patient and killing by the physician. Moreover, Truog's prioritization of autonomy and consent effectively subverts the balance in which autonomy must be held with community, ignores beneficence altogether, and makes consent the executor (literally) of unchecked autonomy. We see in Truog's thought the same misappropriation of compassion and autonomy that is foundational for the assisted-death movement.

Why dwell on these philosophical endeavors at this particular moment in the history of medicine and of organ transplantation? Are not current practice parameters widely endorsed? Do not the proposals of Veatch, Truog, and Savulescu seem outlandish and unlikely to gain traction?

The last two decades have seen refinement in organ transplantation technique and immune-modulation, providing life – in quantity and quality – available as never

before to those who suffer the most horrid of diseases. These same two decades have also seen the march of the assisted suicide agenda across our land, fueled by the mantra of autonomous choice. We see already the inevitable intersection of organ procurement with assisted death. In a culture and climate that favors the sacredness and deep need of the potential organ recipient, it is incumbent upon Christians to guard jealously the sacredness of those who suffer but who are not yet dead, who may become, but who are not yet, organ donors.

Author's Note

Portions of this paper appeared originally in a paper entitled "A Grim Harvest," in *First Things*, January 2017, and are used with the publisher's permission.

***

Bibliography

BERNAT, James. "Brain Death". *In*: BERNAT, James. *Ethical Issues in Neurology*. Philadelphia, PA: Wolters Kluwer; Lippincott Williams & Wilkins, 2008.

BERNAT, James. 'Life or death after the dead donor rule?' *In*: *New England Journal of Medicine*, 369(14), 2013, p. 1289-1291.

BOLEN, J.; DE JONGH, W.; HAGENAARS, J.; VAN DIJK, G.; TEN HOOPEN, R.; YSEBAERT, D.; IJZERMANS, J.; VAN HEURN, E.; VAN MOOK, W. 'Organ donation after euthanasia: a Dutch practical manual'. *In*: *The American Journal of Transplantation*, vol. 16, 2016, p. 1967-1972.

GREER, David M.; WANG, Hilary H.; ROBINSON, Jennifer D.; VARELAS, P. N.; HENDERSON, G. V.; WIJDICKS, E. F. 'Variability of Brain Death Policies in the United States'. *In*: *JAMA Neurology*, 73(2), 2016, p. 213-218.

Greer DM1, Wang HH1, Robinson JD1, Varelas PN2, Henderson GV3, Wijdicks EF4.
Author information
Abstract

GUSHEE, David. *The Sacredness of Human Life*: Why and Ancient World Biblical Vision is Key to the World's Future. Grand Rapids, MI: Eerdmans, 2013.

LARSON, Edward; AMUNDSEN, Darrel. *A Different Death*: Euthanasia and the Christian Tradition. Downers Grove, Il: Intervarsity Press, 1998.

LINDEN, Peter. 'History of Solid Organ Transplantation'. *In*: *Critical Care Clinics*, 25, 2009, p. 165-184.

MEILAENDER, Gilbert. 'Gifts of the Body'. *In*: *The New Atlantis*, vol. 13, 2016, p. 25-35.

MILLER, Franklin; TRUOG, Robert. *Death, Dying, and Organ Transplantation*. New York, NY: Oxford University Press, 2013.

OLIVER, Michael; WOYWODT, Alexander; AHMED, Aimun; SAIF, Imran. 'Organ donation, transplantation, and religion'. *In*: *Nephrology Dialysis Transplantation*, 26(2), 2010, p. 437-444.

ORIOLES, A; MORRISON, W. E.; ROSSANO, J. W.; SHORE, P. M.; HASZ, R. D.; MARTINER, A. C.; BERG, R. A.; NADKARNI, V. M. 'An under-recognized benefit of cardiopulmonary resuscitation: organ transplantation'. *In*: *Critical Care Medicine*, 41(12), 2013, p. 2794-2799.

OWEN, A. M.; COLEMAN, M. R.; BOLY, M.; DAVIS, M. H,; LAUREYS, S.; PICKARD, J. D. 'Detecting awareness in the vegetative state'. *In*: *Science*, vol. 313, 2006, p. 1402.

PELLEGRINO, Edmund D. "Euthanasia and Assisted Suicide". *In*: KILNER, John; MILLER, Arlene B.; PELLEGRINO, Edmund D. *Dignity and Dying: A Christian Appraisal*. Grand Rapids: Eerdmans, 1996.

PINSON, C. Wright; FEURER, Irene D.; PAYNE, Jerita L.; WISE, Paul E.; SHOCKLEY, Shannon; SPEROFF, Theodore. 'Health-related quality of life after different types of solid organ transplantation'. *In*: *Annals of Surgery*, 232(4), 2000, p. 597-607.

RAEMDONCK, D. Van; VERLEDEN, L.; DUPONT, D.; YSEBAERT, D.; MONBALIU, D.; NEYRINCK, A.; *et al.* 'Initial experience with transplantation of lungs recovered from donors after euthanasia'. *In*: *Applied Cardiopulmonary Physiology*, 15, 2011, p. 38-48.

ROBERTS, Allen. 'Eastern Orthodox views on a "higher-brain" death criterion: why theology must inform medical ethics'. In: International Journal of Orthodox Theology, 8(2), 2017, p. 115-133.

_____. 'The higher-brain concept of death: a Christian theological appraisal'. *In*: *Ethics & Medicine*, 33(3), 2017, p. 177-191.

RUDGE, C.; MATESANZ, R.; DELMONICO, F. L.; CHAPMAN, J. 'International practices of organ donation'. *In*: *British Journal of Anaesthesia*, 108(S01), 2012, p. i48-i55

SHAH, Seema; KASPER, Kenneth; MILLER, Franklin G. 'A narrative review of empirical evidence on public attitudes on brain death and vital organ transplantation: the need for better data to inform policy'. *In*: *Journal of Medical Ethics*, 41, 2015, p. 291-296.

SHEWMON, D. Alan. "Controversies Surrounding Brain Death". *In*: JENSEN, Steven J. *The Ethics of Organ Transplantation*. Washington, DC: Catholic University of America Press, 2011

TRUOG, Robert D.; MILLER, Franklin G.; HALPERN, Scott D. 'The dead-donor rule and the future of organ donation'. *In*: *New England Journal of Medicine*, 369(14), 2013, p. 1287-1289.

VAUTER, B. Holly. "Definitions of Death". *In*: KILNER, John; MILLER, Arlene B.; PELLEGRINO, Edmund D. *Dignity & Dying: A Christian Appraisal*. Grand Rapids: Eerdmans, 1996.

VEATCH, Robert; ROSS, Lainie. *Defining Death: The Case for Choice*. Washington, DC: Georgetown University Press, 2016

VEATCH, Robert; ROSS, Lainie. *Transplantation Ethics*. Washington, DC: Georgetown University Press, 2015.

WIJDICKS, Eelco; PFEIFER, Eric. 'Neuropathology of brain death in the modern transplant era'. *In*: *Neurology*, 70, 2008, p. 1234-1237.

_____; VARELAS, Panayiotis N.; GRONSETH, Gary S.; GREER, David M. 'Evidence-based guideline update: Determining brain death in adults. Report of the Quality Standards Subcommittee of the American Academy of Neurology'. *In*: *Neurology*, 74(23), 2010, p. 1911-1918

WILKINSON, Dominic; SAVULESCU, Julian. 'Should we allow organ donation euthanasia? Alternatives for maximizing the number and quality of organs for transplantation'. *In*: *Bioethics*, 26(1), 2012, p. 32-48.