

A Brief Ethical Primer on Ethical Issues in Organ Transplantation from the Catholic Perspective

***Fr. Tom Knoblach, PhD
Consultant for Healthcare Ethics***

Introduction

Since the first successful heart transplant in 1967, and the introduction of effective drugs to suppress immune systems and avoid organ and tissue rejection in 1980, organ transplants have saved many lives. Kidneys, lungs, hearts, pancreases, and other solid organs and tissues have been routinely transplanted, both from living and deceased donors. However, the demand for such organs far outstrips the supply. And like any medical intervention, questions about ethics naturally accompany transplantation, since medicine is by nature a human undertaking that is inherently moral.

The ethical issues connected with organ transplantation are complex – medically, politically, emotionally, economically, and ethically – and they are constantly evolving. This primer can only address the most basic outlines of the issues and current Catholic teaching. Also, for the sake of simplicity in this primer, I will refer to “organ transplantation” although most of the comments also apply to the use of various tissues from the human body as well.

Three general sets of ethical issues arise in the context of organ transplantation:

- 1) When is organ transplantation morally acceptable from cadavers (deceased donors) and from living donors?
- 2) How should organs be procured?
- 3) How should organs be allocated?

Statements on Organ Transplantation from Catholic Teaching

In general, Catholic teaching supports organ donation and transplantation, within the bounds of the moral law. Succinctly, organ transplantation is morally acceptable in the Catholic tradition under these conditions:

- a) *There is a serious need on the part of the recipient and alternatives to transplant carrying lower risks are exhausted*
- b) *If a living donor, the donor preserves functional (even if not anatomic) integrity*
- c) *The recipient's expected benefit is proportionate to the harms suffered or risked by the donor*
- d) *The donor's consent is free and informed*
- e) *If the donor is deceased, that the donor had consented to donate organs or family gives free and informed consent*
- f) *Death must be assured before removing vital organs*
- g) *Organs are not bought or sold*

Some concise statements outlining this teaching are presented here.

In his 2002 address to the 18th International Congress of Transplantation Societies, the late Pope John Paul II said:

Transplants are a great step forward in science's service of humanity ... offering a chance of health and even of life itself to the sick who sometimes have no other hope. [Organ donation] is a gesture which is a genuine act of love. It is not just a matter of giving away something that belongs to us but of giving something of ourselves.

The *Catechism of the Catholic Church* teaches:

no. 2296. Organ transplants conform to the moral law and can be meritorious if the physical and psychological dangers and risks incurred by the donor are proportionate to the good sought for the recipient. Organ donation after death is a noble and meritorious act and is to be encouraged as a sign of genuine solidarity. It is not morally acceptable if the donor or his/her proxy has not given explicit consent. Moreover, it is not morally admissible directly to bring about the disabling mutilation or death of a human being, even in order to delay the death of other persons.

This passage highlights the need to balance risks and benefits foreseen in contemplating donation and transplantation from a living donor; the ethical requirement that donation always be a voluntary act with explicit and genuine informed consent; and that harm may not be done to a prospective donor even to benefit a recipient (“we may not do evil that good may come of it” - see Romans 3:8).

The United States Conference of Catholic Bishops, in their ***Ethical and Religious Directives for Catholic Health Care Services***, summarize succinctly this teaching with more specific applications. Regarding living donors, the Bishops state:

Dir. 30. The transplantation of organs from living donors is morally permissible when such a donation will not sacrifice or seriously impair any essential bodily function and the anticipated benefit to the recipient is proportionate to the harm done to the donor. Furthermore, the freedom of the prospective donor must be respected, and economic advantages should not accrue to the donor.

In accord with the Catholic moral tradition, the Bishops note that while bodily integrity may be compromised for a sufficiently grave reason, functional integrity must be preserved (thus, while a person can live with one kidney and can therefore live donors may choose to donate a kidney, one may not donate a vital organ or donate any tissue if the risk to the donor would outweigh the benefits foreseen). They highlight the necessity for voluntary donation, and, in accord with current law in the United States and many (though not all) other countries, insist that organs may not be bought and sold as a commercial enterprise. More will be said about this below.

Regarding deceased donors, the Bishops state:

Dir. 63. Catholic health care institutions should encourage and provide the means whereby those who wish to do so may arrange for the donation of their organs and bodily tissue, for ethically legitimate purposes, so that they may be used for donation and research after death.

Thus, Catholic hospitals and other facilities not only may, but are instructed to, have policies and procedures in place to facilitate donation for transplantation and research purposes.

Dir. 64. Such organs should not be removed until it has been medically determined that the patient has died. In order to prevent any conflict of interest, the physician who determines death should not be a member of the transplant team.

Because it is not morally permissible to cause harm to the donor, the death of a donor must be verified before organs or tissue are procured. Obviously, this is of particular necessity when it is a question of vital organs. The separation of the personnel involved with the determination of death and the procurement of organs helps to safeguard patients and prospective donors. This is especially important because organs are most useful for transplant when procured within a very narrow window of time after death. This will be discussed further below as well.

Dir. 65. The use of tissue or organs from an infant may be permitted after death has been determined and with the informed consent of the parents or guardians.

Dir. 66. Catholic health care institutions should not make use of human tissue obtained by direct abortions even for research and therapeutic purposes.

These requirements further safeguard the rights of patients who are especially vulnerable, and safeguard the integrity of Catholic institutions from cooperation with abortion, even remotely, because of the particular gravity of this crime against life.

Procurement Issues

When asked, the majority of Americans tend to say they favor organ transplantation. However, only a small number of persons are actually donors: of 2.5 million deaths in the U.S. annually, some 25,000-30,000 organs are donated by some 12,000-14,000 donors. Of these, about 58% are deceased donors and 42% are living donors (of non-vital organs, of course); although the great majority, about 74%, of transplanted organs come from deceased donors who give multiple organs. By far, kidney transplants are most common (16,812 in 2011); liver is next at 6,341 m following by heart (2,322) and lung (1,822).

As a result of these relatively low rates of donation compared to those on the waiting list (over 116,000), each year almost 7,000 persons die while waiting.

Thus, various proposals are made to increase the supply of organs for transplantation. Some are acceptable, and others are ethically objectionable. A few of the more common proposals will be discussed here.

Free Market Appeals and “Selling” Organs

In 1984, a piece of legislation called the National Organ Transplant Act (NOTA) made it illegal to sell organs for transplant; they must be freely given as a gift. This law remains in effect, with penalties of up to five years in prison and/or a \$50,000 fine for violation. However, sales of organs (especially kidneys) are done in other countries. This leads to what is sometimes called “transplant tourism” to India, China, Philippines, South America, and some countries of Eastern Europe, where such transactions are legal. Traffic in sold organs tends to be South to North, poor to rich, Third World to First World, black/brown to white, and female to male.

Ethically, selling organs is objectionable for several reasons. First, the human body is not a commodity or a possession to be disposed of at will, but a constitutive part of the human person made in the image of God. Second, the practice can readily exploit the poor, those with mental disabilities or incompetence, and prisoners. Third, the quality of organs from these populations is often marginal and outcomes likely to be poorer, both for donors and recipients. Fourth, payment for organs would undermine the altruistic motivations for donation and trust in the system, as well as require new regulations that would be very difficult to enact and enforce.

Presumed Consent (Mandatory Donation)

The laws of some countries presume that you are a donor upon death, unless you explicitly state that you are not (among them Belgium, Austria, Finland, France, Norway, Denmark, and Singapore). In the U.S., we presume that you are not a donor unless you explicitly state that you are, voluntarily.

In practice, even when the deceased person indicated that he or she would like to be a donor, the family is customarily approached by the OPO (organ procurement organization) immediately after death to give consent to remove organs. About half the time, the family declines donation. While this has been challenged more recently, the OPO still rarely if ever will take organs even from stated donors if the family objects, as to do so would create mistrust in the voluntary system of donation and effectively decrease the number of donors.

Occasionally in the U.S., proposals are made in the literature or in legislation to presume consent unless the person actively opts out of being a donor, or at least requiring a response to the question of donation either on driver’s license application or hospital admission. However, these proposals have not been successful as it is difficult to argue for such presumed consent in our culture which emphasizes individual liberties and freedom of choice.

Donations from “Non-Persons”

Every so often, the argument is made that there are certain human individuals who are no longer “persons” in law, and thus become eligible candidates for the procurement of their organs. Among these so named at times are patients in a persistent vegetative state (PVS); anencephalic infants; and patients with advanced dementia.

Although not widely endorsed and never yet adopted, the argument is rooted in the claim that apparent absence of upper brain function implies that these individuals cannot reason, communicate, understand, or experience human emotion, and thus have lost “personhood” in any meaningful, self-aware, and legally protected sense. Proposals vary; some would only take paired organs or tissues that would not functionally compromise the patient or lead to death; others believe such individuals could also be sources of vital organs.

As one might expect, the Catholic tradition rejects this view of persons who may indeed be severely disabled but remain persons with the equal and inviolable right to life, dignity, and integrity, regardless of their state of development or decline. Further, persons must always be respected as ends in themselves, and never used as a means for the ends of others. It should be noted that in this stance, the Catholic position accords with the great majority of secular bioethics and with current laws.

The Manufacture of Organic Tissue

While this is still mostly speculative, great advances have been made with adult stem cells in growing particular organic tissues for transplant, thus eliminating the need for whole organ transplantation. The use of adult stem cells from the recipient himself or herself resolves the issues of both tissue rejection and the moral concerns with the destruction of embryos that attend the use of embryonic stem cells. Research and techniques here are ongoing, and current news sources are recommended for the latest developments.

Non-heart-beating donors (Donation after Cardiac Death or DCD)

Until the 1960s and 1970s, death was generally determined by cardiopulmonary means: if the patient’s heart and breath had ceased and could not be resumed in the body, it was judged that the death of the patient had occurred. The advent of machines that can artificially support heart and lung operation blurred this familiar line and led to discussions on other reliable means to determine death.

In 1968, doctors at Harvard Medical Center proposed Harvard Criteria to ascertain whole brain death. These tests were elaborate, time-consuming and repetitive, seeking indications of reflex and autonomous functions of the brain stem and upper brain. They were stringent but impractical for routine diagnostic use. Developments of CT scans, the MRI, PET scans, and other imaging techniques were relied on instead. Yet by whatever means, the goal was the same: to determine with moral certitude that death had occurred: in the words of the 1981 Uniform Declaration of Death Act, death can be determined either through “the irreversible cessation of all brain function, including the brain stem” or “irreversible cessation of circulatory and respiratory function.”

In recent years, the proposal has been made to return to the older cardiopulmonary means of the determination of death. Again, recall that the sooner organs can be procured after death has been declared, the more likely they will be viable for successful transplants. Thus, under carefully crafted guidelines for certain patients with severe and unrecoverable brain injuries, protocols are

in place in a number of hospitals to allow for the donation of organs from non-heart-beating donors (sometimes called donation after cardiac death or DCD).

Understandably, these protocols have not been without controversy. A premature and mistaken diagnosis of death would result in the removal of vital organs from a living donor, thus causing death; some fear that the desire to procure fresh organs will compromise a careful, objective and accurate determination of death. While there are no cases on record of spontaneous resumption of heart and breathing after two minutes of inactivity, some argue this is too soon to begin organ procurement and want protocols to wait at least five, or ten, or twenty minutes – each minute that passes makes successful transplant less likely. Others are concerned that the steps taken to preserve the organs in the minutes from the determination of death to actual procurement may themselves hasten the patient's death. Finally, there is a small group objecting to DCD on the grounds that as long as there is any spontaneous activity in the body's organs or tissues, even if not organized or capable of supporting the life of the whole organism, that death cannot be said to have occurred.

While theology defines death as the event of the separation of soul from body, no empirical observation can directly verify this event. However, there are indirect biological signs of the presence of the soul in the body's unified and integrated activities – most relevantly, circulatory and respiratory activity which is governed by brain activity. Therefore, Pope John Paul stated clearly that the determination of death is a medical, not a theological, judgment in individual cases, and that, carefully and objectively observed, these biological signs can indeed be used to determine that death has in fact occurred until more certain means might be developed in the future.

Thus, in current Catholic teaching, irreversible and total brain death (leading to “the loss of all capacity for integrating and coordinating physical and mental functions of the body”) is the criterion of death. This state of death can be established either by demonstrating the irreversible cessation of all brain activity or the irreversible cessation of circulation and respiration (which will inevitably lead to whole brain death within several minutes). And therefore, if it is morally certain that death has occurred, organs can be removed from non-heart-beating donors even while perfusion of organs is maintained artificially.

DCD will continue to be controversial. Others have noted that even using DCD and these other controversial sources for organs noted above will still not begin to meet the need for donation. Therefore, two other sources are proposed, as follows.

Appeals for greater voluntary donation from living donors

Given that the shortage of organs persists, but the most common and successful transplants are kidneys (a paired organ) and liver (a lobe that is donated from a live donor can regenerate for the donor over time), some propose making donation from living donors more attractive and common.

Living donation has several advantages: decreased wait time for recipients; the possibility of scheduling transplant surgery in advance; reducing the time during which organs to be

transplanted are cooled and without bloodflow; and often better outcomes due to better preparation, matching, and freshness of the organs.

The Catholic tradition accepts living donation when it fits under the principles of “integrity” and with informed consent. That is, functional integrity must be maintained for the donor, even if the donor’s body sacrifices its anatomical wholeness by donating a non-vital organ (such as a single kidney, a lobe of the liver or lung, or a portion of pancreas).

Living donors may be persons who are genetically-related to the recipient, or emotionally-related to the recipient, or simply “Good Samaritan” donors who wish to contribute to the health of another in the human community.

Because none of these solutions, in isolation or all together, will resolve the issue of shortages of organs, research into alternatives continues, particularly (as noted) methods to grow organs or tissues for transplant, or to rebuild damaged tissue through adult stem cell therapies.

Allocation Issues

In addition to these issues on donation and the legitimacy of transplants in themselves, the issue of who gets donated organs creates its own set of problems.

There are 58 federally-designated organ procurement organizations (OPOs) in the U.S., serving about 275 transplant centers. In a complex arrangement set up through the 1984 National Organ Transplantation Act (NOTA), the United Network for Organ Sharing (UNOS), a private-public partnership under contract with the federal Department of Health and Human Services (DHHS), operates the Organ Procurement and Transplantation Network (OPTN).

The number of acronyms itself suggests the complexity of this set-up. While the goal to share organs available for transplant equitably is shared, the interpretation of the best means to achieve that goal can differ sharply. UNOS and DHHS have indeed differed strongly on the allocation question, despite their close relationship.

UNOS has tended to argue that priority for receiving an organ should be given locally – that is, the closest geographic relationship between donor and recipient. This gives the best prospects for success and also “rewards” those areas with higher donation rates. The DHHS regulations instead consider organs as a national commodity which should go to the sickest first; medical need, and not geography, is to be the main criterion. In this philosophical difference, UNOS tends to set the actual course of donation, since UNOS itself is responsible for creating allocation policies, while the DHHS only oversees the application of NOTA’s mandate for “fairness” in allocation.

Attempts to regulate allocation arose because of concerns that in practice, the allocation of organs was sometimes based on an inconsistent combination of medical and non-medical criteria. Among the factors that could be involved included: geography; mental stability; age; quality of life; the recipient’s social and medical support system; research interests; the recipient’s

perceived value to society; the fact of a referral by a physician; medical urgency; the length of time on a waiting list; the recipient's prognosis and/or immune status; the logistics of transplant; and the necessary tissue and blood type match. Some of these criteria may overlap. The question of how much weight should non-medical criteria should carry in allocation decisions remains problematic because organs remain a significantly limited resource.

Revisions to the allocation rules in 1999 attempt to ensure that (leveraging electronic communication) when an organ becomes available, potential recipients are identified through criteria of tissue match, blood type, time on a waiting list, immune status, and distance; and for heart, liver, and intestines, medical urgency is also considered. These rules also require that patients are removed from the lists when transplant is no longer medically appropriate, and clarify that "medical urgency" must include sound medical consideration of likely benefit and the effects of organ transport times on viability and success.

As administrations, medical research, available organs, transplant techniques, and other factors continue to change, the rules for allocation will also change. Current research is always necessary to understand the latest policies and regulations.

From a theological perspective, because they are medical decisions, allocation questions are to be based on medical criteria. In the address to the Transplant Congress cited above, Pope John Paul II explained:

"From the moral standpoint ... criteria for assigning donated organs should in no way be discriminatory (i.e., based on age, sex, race, religion, social standing, etc.) or utilitarian (i.e., based on work capacity, social usefulness, etc.). Instead ... judgments should be made on the basis of immunological and clinical factors. Any other criterion would prove wholly arbitrary and subjective and would fail to recognize the intrinsic value of each human person as such, a value that is independent of any external circumstances."

Conclusion

The various aspects of organ donation and transplantation outlined here will continue to be debated. This is appropriate, given the significant values at stake. At the same time, it is certainly within the realm of possibility that advances in genetic medicine and morally acceptable stem cell therapies will make organ transplantation obsolete in the coming several decades. However, these new techniques will not resolve all the issues raised here about allocation and availability for their use, and may bring some other new ethical questions as well.