Organ Transplantation

Debate motion

An organ transplantation allocation system that considers only factors associated with individual medical need is a more ethically acceptable method for distributing a scarce resource than a system that also considers factors associated with the patient’s contribution to society.

Organ Transplantation

Organ donation can save lives and return individuals with debilitating illnesses back to having productive, fulfilling lives. Seen as one of the greatest achievements of modern medicine, through organ donation tens of thousands of people are given a new lease on life through the selfless altruism of others who choose to give their own organs in an effort to save others.

Because there are more people in our society who stand to benefit from organ transplants than there are donated organs, it is necessary to have waiting lists and an allocation system which is a policy for deciding which individuals receive organs when they become available. Allocation is determined by a range of factors. Weighted differently in different instances, a patient’s medical need and societal benefit are among the considerations.

Medical need includes the severity of the patient’s illness, risk of death without transplantation and time on a waiting list. Patients with the greatest medical need and urgency for a transplant are likely to be diagnosed with end-stage organ failure. If in support of this motion, no other factors should be taken into consideration. If in opposition to this debate motion, both a patient’s medical need and societal contribution should be considered when determining the allocation of organs for transplantation. This debate centres on the consideration of a patient’s potential benefit to society and if this should be factored in to the allocation criteria. This could include a patient’s age, citizenship, criminal record, employment history, life expectancy, and perceived value to society.

Both the source and method of obtaining the organ to transplant are also ethical issues to consider, as well as the principles of individual and societal justice.

Stakeholders

- Patients
- Healthcare systems
- Developing countries
- The general public
- Vulnerable health groups- i.e. people predisposed to illnesses with organ failure
- Prisoners
- Elderly persons, > 75 years of age
- Immigrants and emigrants
- Uninsured persons

What systems of procurement exist?

Deceased Donation

This allows for the use of a donor card to grant medical staff permission to use a person’s organs for transplantation after death. In most countries this system is voluntary and the information appears on driver’s licenses.

- After brain death – The donor is declared dead showing a complete lack of brain activity. If consent is present, these patients are delivered to the operating room where life support is withdrawn. Organs are then removed for transplantation.
**What systems of procurement exist?**

Healthy persons can opt to donate one kidney, a portion of their liver or a lobe of their lungs to a sibling or close relative. Live donors undergo comprehensive education about the procedure and its risks, as well as extensive medical and psychological evaluations. This ensures that the decision to donate is informed, altruistic and free and also that the donor is a medical match for the recipient.

**How do we decide who will receive the implants?**

The major obstacle to the organ transplant system is that there are not enough organs for all who need transplants. Allocation of donated organs has social impact. Two of the main principles that govern allocation are:

- **Social utility** – Maximizing the total satisfaction gained by society in organ transplantation involves giving newly available organs to the people with the most productive years remaining so that they can positively affect society by contributing to it. Retired persons, those with criminal records, illegal immigrants, chronically unemployed people and non-parents might be perceived to have lower societal productivity and less ability to contribute to society.

- **Justice** – All people should have an equal right to the benefits of the transplant programme regardless of their race, gender, age, country of residence, socioeconomic background, quality of tissue match, criminal background, medical condition, worth to community, etc. This principle allows more equal access.

**Risks**

Transplant rejection is a process in which a transplant recipient’s immune system attacks the transplanted organ or tissue.

The body’s immune system is designed to protect against substances that may be harmful, such as germs, poisons, and cancer cells. These harmful substances have proteins called antigens on their surfaces. As soon as these antigens enter the body, the immune system recognizes them as foreign and attacks them.

Immunosuppressive drugs or immunosuppressive agents are drugs that inhibit or prevent activity of the immune system. They are used in immunosuppressive therapy to prevent the rejection of transplanted organs and tissues. A common side-effect of many immunosuppressive drugs is immunodeficiency, because the majority of them act non-selectively, resulting in increased susceptibility to infections. There are also other side-effects.

As immunosuppressive agents and graft survival have improved, infection and malignancy have become the main barriers to disease-free survival after organ transplantation. As a result of the growing population of immunosuppressed patients with prolonged survival, an increased incidence and spectrum of opportunistic infections is observed.

**Additional Concerns**

When does ‘death’ occur? When heart and lungs stop? Brain activity ceases?

There are three common definitions of death:

- **Traditional** – No longer breathing and heart is not beating. Also known as circulatory-respiratory definition of death.

- **Brain** – Irreversible cessation of brain functions. No electrical activity in the brain or brain stem. Permanent loss of consciousness. Those in a persistent vegetative state would not be considered dead since the brain stem is still regulating breathing, heartbeat and other functions.

- **Personhood** – Exhibition of activities such as reasoning, remembering, feeling emotion, possessing a sense of the future, and interacting with others are criteria for personal identity. Death occurs when this ceases.
Possibilities exist to increase the supply of donated organs.

Should policy be changed so that consent to donate is automatically assumed unless someone says no?

Both developing and developed countries have forged various policies to try to increase the safety and availability of organ transplants to their citizens. Brazil, France, Italy, Poland and Spain have ruled all adult potential donors with the "opting out" policy, unless they attain cards specifying not to be.

Should donors or their families get paid?

Compensated donors get money or other compensation in exchange for their organs. This practice is common in some parts of the world, whether legal or not, and is one of the many factors driving medical tourism. Allowing or forbidding payment for organs affects the availability of organs. Generally, where organs cannot be bought or sold, quality and safety are high, but supply is not adequate to the demand. Where organs can be purchased, the supply increases. In most countries it is illegal to commodify organs for transplantation.

Is it ethical to take advantage of the disadvantaged in order to get more organs?

The main concern here is that when living donors sell non-vital organs for money it is mainly people-in-need doing so to support their families.

Organ trade and trafficking?

Organ trade involves the internal organs of a human for transplantation. There is a worldwide shortage of organs available for transplantation, yet trade in human organs is illegal in all countries except Iran. Organ trafficking is widespread, although data on the exact scale of the organ market is difficult to obtain. Whether or not to legalize the organ trade, and the appropriate way to combat illegal trafficking, is a subject of much debate.

Facts and Figures

- Organs successfully transplanted in humans include Kidneys, Corneas, Heart, Lungs, Liver, Intestines, Thymus, Pancreas, Spleen, and Uterus.

- More than 20,000 kidney transplant procedures are performed worldwide each year and transplantation is the treatment of choice for people with end-stage kidney disease.

- In the UK between 1 April 2011 and 31 March 2012:
  - 3,960 organ transplants were carried out, thanks to the generosity of 2,143 donors.
  - 1,107 lives were saved in the UK through a heart, lung, liver or combined heart/lungs, liver/kidney or liver/pancreas transplant.
  - 2,846 patients’ lives were dramatically improved by a kidney or pancreas transplant, 173 of whom received a combined kidney/pancreas transplant.
  - A further 3,521 people had their sight restored through a cornea transplant.
  - A record number of 674 kidney transplants from donors after circulatory death took place and accounted for one in four of all kidney transplants.

- Ireland has one of the highest rates of donation in the world: 20.3 donors per million populations (pmp).
- All organ donations in Ireland are coordinated through the Irish Organ Procurement Office in Beaumont Hospital. Strict ethical guidelines protect the interests of organ donors, their families, and transplant recipients.
- All deceased organ donors in Ireland are people who have died in hospital whilst on a ventilator. Death under these circumstances is determined by the absence of brain function.
Legislation and Regulatory Authorities

In the United States, The National Organ Transplant Act of 1984 made organ sales illegal. In the United Kingdom, the Human Organ Transplants Act 1989 first made organ sales illegal, and has been superseded by the Human Tissue Act 2004.

Within the European Union, organ donation is regulated by its member states. As of 2010, 24 European countries have some form of presumed consent (opt-out) system, with the most prominent and limited opt-out systems in Spain, Austria, and Belgium yielding high donor rates. In the United Kingdom organ donation is voluntary and no consent is presumed. Individuals who wish to donate their organs after death can use the Organ Donation Register, a national database. The UK has recently discussed whether to switch to an opt-out system in light of the success in other countries and a severe British organ donor shortfall. In 2008, the European Parliament overwhelmingly voted for an initiative to introduce an EU organ donor card in order to foster organ donation in Europe.

The World Health Organization argues that transplantations promote health, but the notion of “transplantation tourism” has the potential to violate human rights or exploit the poor, to have unintended health consequences, and to provide unequal access to services, all of which ultimately may cause harm. Regardless of the “gift of life”, in the context of developing countries, this might be coercive. The practice of coercion could be considered exploitative of the poor population, violating basic human rights according to Articles 3 and 4 of the Universal Declaration of Human Rights. There is also a powerful opposing view, that trade in organs, if properly and effectively regulated to ensure that the seller is fully informed of all the consequences of donation, is a mutually beneficial transaction between two consenting adults, and that prohibiting it would itself be a violation of Articles 3 and 29 of the Universal Declaration of Human Rights.

Religious influences

- Christianity – Catholic, Protestant and Orthodox Christians support and encourage donation. It is considered an act of charity and an act of individual choice to donate organs.
- Islam – To promote the value of saving human life, the majority of Muslim scholars see organ transplantation as a necessary means to attain a noble end. However there is not unanimous support amongst the community as some believe that the body should be returned to Allah without change.
- Judaism – Reform and Conservative beliefs encourage donation. There is no consensus regarding the criteria for death in the Orthodox sector but some leaders have spoken out in favour of brain death, thus making organ donation possible. Saving a human life is considered one of the noblest acts a human can perform.
- Hindu, Buddhist and Shinto beliefs – Reincarnation is a common belief in Hinduism and Buddhism; questions about the resurrection of the dead are not an issue. In Japan where both Shinto and Buddhism are prominent, religious leaders have not taken a strong stance but there is little evidence showing an affirmative position on organ donation. Altruistic traditions and the value placed on compassion in these religions leads to a general support of organ donation.

Sources and Further Reading

For a collection of relevant news stories and references, visit the website of one of the DSI co-ordinating centres:

www.w5online.co.uk  www.crossborder.ie  www.crann.tcd.ie  www.clarity-centre.org

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