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Organ Transplantation: A Life-Line or Death Row?

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Abstract. This paper aims at an examination of organ transplantation with special focus on the viability or otherwise of transplantation as a life-saving procedure for patients with end-stage organ failures. It points out that the crucial issues in organ transplantation is centered on question of whether organ transplantation really serves the purpose of saving lives or a death-row and the question of how to ensure justice in the face of organ shortage. This paper therefore argues that organ transplantation which is supposed to serve solely the purpose of life saving is also a death row for those awaiting organs; this is because of the unavailability of organ, unwillingness to donate and the unfavorable role that the criteria for allocation does to others who are not opportune to have the needed organ before death.

Keywords: Organ transplantation, life line, death row, justice, organ shortage,

1. Introduction

Science today delights us sophisticated medical technology that has improved standards of health and has made available medical options that never existed before. One of such new medical options is the development of organ transplantation as a remedy for organ failure. Organ transplantation has become a treatment of choice for majority of these patients because of medical and economic advantages over other 'traditional' methods of organ failure treatment.

But together with this improved technology comes a myriad of legal ethical and bioethical implication. These include the legal definition of death, the legal/medical criterion of death, means of organ procurement, issues associated with organ donation, the allocation of organs, and the hardship of the sick that wait for organs amongst other questions.

This paper is divided into four parts: part one is the introduction, the second part is a discourse of the ethical issues associated with organ donation, the third part deals with the dilemma of organ allocation while the last part addresses the paradoxical debate of if transplantation medicine remains a life-line or death row for patients with organ failure(s).

2. Organ Donation and Transplantation

Organ transplantation is the surgical removal of an organ from someone (a donor) to another (recipient) in order to replace a diseased organ. It is a process of surgically transferring a donated organ into a patient with end-stage organ failure. Transplantation offers life changing and life-saving surgery to many patients with organ failure and for these, it is the only choice. One of the options available to those with organ diseases, it can be used to treat kidney, heart, liver, lungs and some tissue diseases. Organ transplant typically refers to the transplant of the solid organs of the body such as heart, lungs, liver, pancreas, intestines and kidney. It is not only organs such as kidneys, heart, liver, lungs

which are transplanted but also human tissue and cells.In the early days, problems with organ rejection and sufferings resulting from immunosuppressant drugs made transplantation a risky procedure. But with new immunosuppressant drugs and improved medical technology, patients now undergo transplant surgeries with relative safety. Organ transplantation has advanced rapidly over the years, improving steadily in its success rates and bringing extension of lives to hundreds of thousands throughout the world. Organ transplantation involves not only the physician and the patient but also involves a donor and the organ itself. The organ is a precious resource whose availability or not makes or mars the entire process of transplantation. Thus the organ is an integral and necessary component of transplantation. Since inception the primary means of obtaining organs for transplant are from the dead or living through donation. Hence, donation is the primary vehicle for obtaining organs.

Organ donation is the donation of biological organs of the human body from a living or dead person to a living recipient in need of transplantation. The sources of organs for transplantation include living donor (related or non-related), cadaveric donor and brain-dead patients. There are four categories of donation by living persons which can be recognized. They are living-related organ donation, altruistic organ donation, living non-related organ donation and cross donation. Living-related organ donation is directed towards a loved one. This type of donation occurs between related individuals and is considered one of the best types of living donation because it offers a high probability of tissue match, blood type match and reduces rate of organ rejection because the organ is from a related individual.

Cadaver organs are organs obtained from deceased donors. Cadaveric donors are deceased individuals who give permission to the use of their organs before death, become donors through relatives' consent or through mandated or presumed consent. Cadaveric sources are beneficial as they are multi-organ donors. A lot of organs can be extracted from a cadaver because the organs cannot be used by him/her anymore. There are two types of cadaver donations which are the heart beating cadaver donation and the non-heart beating cadaver donation. In retrieving organs from cadaveric sources, the organs are removed while the donors are still on respirators and their hearts still beating ensuring that the organs remain healthy until the moment of removal. Such is known as heart beating cadaver donors. Organs gotten through this source are from people who are brain dead (having fulfilled the brain death criterion) but whose hearts have not stopped beating. Non-heart beating cadaver donors are the other form of deceased donors. They are completely dead individuals whose hearts have stopped beating in addition to the cessation of all brain activity.These donors are cardio-pulmonary and neurologically dead.

The process of transplantation has been beseted with myriads of ethical issues, even from the inception of the procedure. But with improved technology and advancements in the field of transplant medicine, the ethical issues concerned with the process have gone beyond the issues that agitated the minds of early transplant surgeons. Moreover these ethical issues have taken a new turn and can be taken from various perspectives. The debate surrounding organ donation has become more pronounced and centered on the challenge of organ shortage, definition of death, the issue of consent, low rate of donation, the increased demand for transplantation etc.

Each source of organ donation has ethical problems specific to it. With respect to the living, the key issue is consent. The issue is how to obtain permission from potential donors to donate their organs. Will anyone be willing to give out their organs just for the sake of it? In the case of related organ donation, there is the fear of coercion and mandated decision to donate. If the recipient is a close relative and in critical condition, qualified donors may feel a great deal of pressure or coercion with respect to being a donor. For instance, if an individual's brother is sick and needs a transplant, such an individual may be forced to donate out of his will by parents because he is the best possible

match for the brother thus the donation is not altruistic (such as the case of McFallvs Shrimp, StrunkvsStrunk). Another issue for concern is whether altruistic donated organ should be anonymous or the donor should choose who gets the donated organ. This is because if people are allowed to give organs for particular ones, then racial, ethical considerations and prejudice may decide who gets the available organs. This will favour some at the detriment of others and might cause an unjust treatment or individuals on waiting lists though there are arguments that since we can choose what charities to help out so also we should be able to make decision of who to give our organs. Also, the general anathema surrounding organ retrieval is an ethical issue of concern. Many people, based on religious beliefs hold that it is wrong to remove anything from the body because it (the body) is owned by God. In fact the Catholics believe it violates the principle of totality while some considers it to be mutilation. The question of using young ones as sources of organs raises ethical concerns. There has always been concern among religious groups, particularly the Catholics that living organ donation which requires the removal of a healthy organ from an individual is tantamount to reducing the wholeness of the body. The principle of totality has been an accepted natural-law doctrine for centuries. Since, removing an organ from the body of an expected donor is not because there is a risk of the person's body, then that is a violation of the principle of totality.

But, should we because of the need to uphold the principle of totality watch people die as this itself would affect the totality of the human race. Since man is a social being that live in a society, then the loss of one life tampers with the wholeness (totality) of that society. Also, is one of necessity obliged to save another person's life particularly a family member? Though altruistic, there are no sufficient reasons to prove that it is obligatory. This is in view of the belief that family members with compatible blood and tissue type may be coerced or pressured into donating organs for sick relatives. Besides, the donation of organs seen as obligatory can be construed as a violation of one's freedom to choose. Another bioethical concern with living donation is the quotation of if children should be used as organ donors. Children, it can be argued will be good sources of organs because their organs are still in the developing stage and as they advance in age the stronger the organs become. Consequently, if transplanted into patients, the patients have a higher potential of living longer but this raises questions such on the future of such donor children as they grow older. Moreover, children can't evaluate all medical and ethical issues as to make a free and informed decision. A child cannot evaluate the risk and inconvenience of living all his life with one organ (for example, a kidney).

Similar to the issue above is the use of anencephalic infacts as organ donors. Anencephaly refers to the absence of brain stem functions, so technically anencephalics are neurologically dead i.e. brain dead. But beyond the fact that they can't make a free decision for themselves, anencephalic children can also be objects of love and care. Are they means to an end? Does the end justify the means by using them? Should our quest to save lives put others in jeopardy? Does it mean some are of no use and should be used to salvage others with "promising" futures? Can we imagine the emotional trauma of a mother whose anencephalic child's organs are removed, all in the name of medical pronouncement that the child is brain-dead.

The criteria for death had been a major issue but with the general acceptance of brain death as the death criterion, this problem seems to have been solved but along with the neurological criterion of death comes the problem of determining the real onset of brain death as well as the fear of doctors accelerating the death of their patients in order to harvest their organs. It also brings to fore the critical question of how to ensure that the decision to implement organ preservation measures does not influence the decision of when to stop resuscitation efforts.

Pertaining to cadaveric donations, questions also arise on when people on life support are actually dead. The reason for this type of concern is the conflict of interest between the need to make organs available for transplantation and other

medical uses. But along with the approach comes the question, can we rightly presume that the dead person would agree to his organs been removed and given to others? Moreover, the opt-out option might not be accessible to doctors as at the time of death. Though with death, organs are simply useless for the dead and using them to save the lives of living but sick organ disease patients is reasonable nevertheless there are rights and the organs of even dead individuals belong to the individual and not to the state.

The mandated approach is the mandatory and compulsory removal of the organs of a dead person since the organs are idle and useless for him/her (i.e. the dead). There are however, ethical issues common to both living and cadaveric organs donations. Questions such as the choice of recipients arise with both types of organ donation. Another concern is whether physicians and other health care professionals should inquire into the quality of and motivation behind the decision to donate a kidney for transplantation. The decision to donate may be voluntary, but could also be manipulated by others. Another common ethical question is the question of if financial incentives should be involved in the donation process? Allowing financial incentives, it is argued might lead to commoditization of the body by people and eventually leads to organ sales besides; it may influence donors in choosing who to donate organs- based on shows appreciation most in monetary terms. An example of this is a guy who refused donating his kidney to a wealthy man because he (intended donor) wanted to travel out for the surgery (and probably not return) while the man (expectant recipient) wanted to do the transplant here in Nigeria. It will be seen that for obvious financial and personal gains, the donor refused the man his organs. Nonetheless, the use of financial incentives (within the right context) of the recipient who may be dying- and the rights of the donor, who while dying, is not yet dead. This fear based on the fears of relatives that doctors may stop giving medical care to sick loves ones just to accelerate the death and procure their organs for transplant purposes.

A key ethical issue in cadaveric organ donation is how to secure consent from relatives. The dilemma of obtaining consent from relatives, apart from religious and personal reasons also stems from concerns about the stopping treatment of sick loved ones for the purpose of obtaining organs from them (sick patients).Moreover, should our enthusiasm for saving lives make us throw caution to the wind and obtain organs from just anybody? Should the organs of alcoholics obtained? What are the criteria for selecting organs to be procured? These and other related issues are some of prominent bioethical concerns involved in the donation of organs for transplantation and the in procedure itself.

3. The Dilemma of Organ Allocation

One of the problems that receive the greatest attention in transplantation medicine is the shortage of organs for transplantation. Despite the acclaimed successes of transplantation, organ shortage is yet a big problem that mitigates the overall significant of transplantation medicine. The number of organs available for transplantation falls short of the number of individuals in need of a transplant and is an issue of concern vis-à-vis the plight of individuals with organ failure. The shortage of organs for transplantation produces a new kind of problem which is the distribution of the available organs. The shortage of organs is a hardship which affects not only the suffering individual(s) but poses a threat to the viability or otherwise of organ transplantation. The shortage of organs has necessitated the formation of what is now commonly referred to as waiting lists. Waiting lists can be said to be a list of people on queue for organs.

In simple terms organ shortage is the inadequate shortfall in the number of organs available for transplant. The shortage of organs is predicated on the low level of organs accessed through the traditional means of obtaining organs. As noted by Childress, “the primary ethical dilemmas surrounding organ transplantation stems from the shortage of available organs.

Organ shortage results from the inadequate supply of organs. Organs are traditionally

obtained from cadaveric and living sources but these sources have been dwindling over the years. Obtaining organs from cadavers is ever increasingly an ethical issue and with improved health facilities, mortality rates are on the decline. This limits the number of organs from this source. Furthermore, debates on death-definition, legal and medical criterion for death as well as the right of retrieval, consent by relatives of the death are some of the factors that has handicapped cadaveric organ retrieval. Peculiar to third world countries is the general notion of ignorance, poor medical facilities, misinformation and a general anathema. In parallel to cadaveric sources, living sources of organ donation have also been limited by a number of ethical concerns. Such concerns include the propriety of obtaining organs from the brain-dead but still breathing, anencephalic infants and others.

Organ shortage can also be alluded to recalcitrance of relatives of dead individuals. Many relatives of the dead are reluctant to have organs of dead family members harvested. Of all issues connected with transplantation, supply continues to be the most problematic, for need always outstrips supply. This imbalance between demand and supply thus necessitates the distribution of available organs on certain theoretical framework(s). In a shortage situation, the question arises of how to distribute fairly the available organs and allocate them to individual patients.

Organ allocation is the process of distributing organs to those in need on certain policies and framework. Organ allocation deals primarily with rationing of available organs among needy patients and distribution of the organs as well. This is in fact one of the most crucial aspects of organ transplantation with the various issues and complexities involved. The allocation of organs to patients is based on a number of factors (whose ethical viability and acceptability amongst a number of other bio-medical, religion, social and legal implications will be discussed later in this chapter) ranging from tissue compatibility to organ matching between donor and recipient, blood group matching among other factors. By and large, allocation of organs is an attempt to balance utility and justice in the rationing of organs. In line with medical advice and legal regulation, many countries have established various models of allocating kidney (organs) to patients. The various allocation models are characterized by different criteria for distribution in a certain order. These criteria include criteria of need, (medical urgency) equal opportunity, (waiting period) and benefit (survival rate of organs, success rate of transplantation)

Nonetheless all various criteria that serve as basis of the different allocation models employed by countries, clinics and transplant centers, all allocation systems are meant to be objective transparent, reproducible and valid. They must be patient oriented, maximize equality of opportunity for patients by taking into account objective medical criteria (e.g. compatibility of organ with recipient, the expected transplantation result, medical urgency and waiting time) as well as individual differences.

The ethical principles governing allocation and distribution of organs serve to provide the regulatory framework of the various allocation models and systems. These principles guide the development of organ allocation policies and create an ethical frame work for just distribution network. These ethical principles are general prescriptive norms identifying characteristics of human actions or practices that tend to make them morally right and are most directly applicable to the allocation o organs for transplantation. There are three basic principles of importance that are easily recognizable in the allocation of human organs. These include utility, justice and respect for persons. Utility refers to the maximization of benefit derivable from an act while justice refers to the pair pattern of distribution. The principle of respect for persons incorporates a number of related concepts such as the duty to speak truthfully and keep commitments but primarily conveys the concept of respect for autonomy. Respect for autonomy holds that action are right as long as they respect independent choices made by individuals (without coercion) in so far those choices do not impose harm on others.

One of the dilemmatic ethical issues in the allocation of organs is the criteria of allocation. In other words, should the allocation criteria be medical criteria or criteria based on ethical value judgments. In terms of medical criteria, factors such as compatibility of patients, rate of survival of transplanted organs, quality of life come to bear while ethical value criteria include fairness, medical urgency, waiting period and general equal opportunities. Furthermore, allocation models are characterized by various criteria which are ranked in a certain order. These include criteria of need (medical urgency), criteria of equal opportunity (waiting period) and criteria of benefit (medical prognosis, likelihood of success, how long organs survive). In Lachmann's opinion, the classic conflict in organ allocation lies in the difference between the usefulness principle and that of equal opportunity or of need; in other words, the difference between egalitarian and utilitarian criteria. The issue of egalitarian and utilitarian criteria is exacerbated by how to resolve the conflict that sometimes arises from balancing the principles of utility, justice and respect of person's autonomy. Ethical issues also include patients whose name should be on waiting lists. In appropriating people to organ waiting lists certain factors such as medical success of transplant, the risk of post-surgical complications, the number of years the beneficiary may likely live after the transplant are always put into consideration. But do these mean individuals who are likely to develop complications should be rated out obtaining organs or the last to receive organs? Should the fact that a beneficiary is expected to live only a few months consign him or her to accelerated death because he/she would not be allocated organs at the expense of those who can live longer years? Aren't we consigning lots of people to death? Who gets an organ first: a young one or elderly one? Should lifestyle determine whether one gets an organ or is put on the waiting list or completely neglected for a transplant surgery? Should each candidate get one organ only or should a patient continue to receive them until the procedure is successful? Or as an intermediary position, should an individual be limited to a fixed number of attempts? If the fixed limit of transplant elapses should such patients be denied transplantation altogether and left to die? Is that fair? Is that just? Isn't his/her right to life violated? Should one person receive several organs at once (e.g. a person who is need of kidney and liver transplant) at the expense of a person who needs just a kidney. The odds seem to favour the patient in need of only a kidney than the patient in need of both kidney and liver because since he needs only kidney, he gets it if it becomes available (if other requirements such as compatibility are fulfilled) while the other doesn't because he stills a liver (even if the donated kidney is compatibility with his system), but what if the patient who needs kidney and liver has better chances of survival, recuperation and the propensity to live longer than the one who needs only a kidney, who gets the kidney? Another issue with distribution and allocation of organs has to do with bodily totality. That is should a physically challenged be neglected for complete individuals? If the principle of bodily completeness is employed, then people with disabilities, down's syndrome, cystic fibrosis and other medical condition will be denied not only a place on the waiting life but also a chance to get organs (except from probably loved ones) yet they are also objects of love, sympathy and concern irrespective of their disabilities. The rich versus the poor, leaders versus subjects (followers) are also issues that can determine allocation as well ethnic and racial sentiments. In 1989, for example, three major reports showed that "white men received greatly disproportionate share of the nation's transplanted kidneys compared with warren and blacks of both sexes." In 1988, for example, white males received 60.6% of kidneys. There is also a plexus of legal issues that interlock with the ethical permissibility of allocation to needy patients of transplant surgery. Such legal issues include the interpretation of infringement of fundamental human rights such as right to life. For instance, in the allocation of organs, some individuals will definitely be by-passed though they may satisfy all necessary requirements just as others that eventually get the organs. This appears to be a case of violation of those individuals' right to organ in particular and life in general. Another legal issue for consideration is that at what point the principle of utility

overrule the principle of justice and respect of persons in the allocation of organs and vice-versa among others.

4. A Paradoxical Debate

For many conditions involving organ failure, transplantation has become routine and is often the therapy of choice. Various statistics have shown that though not successful in all instances yet there has been a considerable increase in the life span of individuals that undergo the process. According to statistics between 1984 and 1993, more than four in five kidney transplant recipients live for at least a year and over two-thirds live for at least five years. For liver transplants between the same periods, more than half of the recipients lived longer than five years. Organ transplantation offers several other benefits. For some conditions such as advanced heart failure, treatment with drugs or restorative surgery may not be possible and a transplant provides the only way of replacing such a failed vital organ. In addition, organ transplantation also increases the quality of life. Contrasted with other medical options which require rigorous and strict therapeutic regimes, transplantation offers relative ease to patients. For instance, kidney patients are freed from the necessity of uncomfortable and time-consuming treatment regimes of dialysis. They are able to eat, drink freely and to travel in ways that people on long term dialysis often cannot. Likewise, some heart transplant recipients are able to engage in some relatively strenuous activities. Beyond this, transplant surgeries are less expensive than other forms of treatment available for organ failures; for example kidney transplantation is economically more cost-effective than continued renal dialysis of patients. These, among other health benefits make organ transplantation humanely attractive, and an appealing health-care modality.By any objective measure, the rate of success and quality of medical care for individuals suffering from organ failure is better today than it was when the first organ transplantation was performed. With the development of immunosuppressive drugs, the problem of tissue rejection in kidney transplant has been tackled and solutions have been proffered to other minor problems. Yet, these significant improvements have not eradicated the tremendous suffering of those with failing or diseased organs. Indeed the very success of organ transplantation has produced a new kind of hardship which is the central focus of this essay – the hardship of waiting for organs while one's condition deteriorates and sometimes dying while waiting. This discrepancy between demand and supply of organs has led to the formation of a catalogue of patients in need of organ(s) for transplantation.

This catalogue is now commonly referred to as ''waiting lists''. Transplant waiting lists are databases of individuals scheduled for transplant surgery but have not undergone the surgery for want of organ(s). It is structured such that patients are on queue for organs till they get one suitable and compatible for them. This wait for organs (on transplant waiting lists) has become the subject of intense medical concern as lots of people die while waiting to get an organ. This continuous waiting of needy patients, with many eventually dying while waiting raises the paradoxical question of whether organ transplantation is a lifeline or death row for transplant patients. This is borne out of the observation that what was originally intended to save lives of those with diseased organs has become a means of facilitating the death of such people. Figures from a 1991 research showed that nearly 24,000 patients were awaiting organ transplantation in the United States with more than half dying while waiting.

The United Network for organ sharing estimated that as of march 19, 1997 there were more than 52,000 people waiting for organ transplantation and a new name is been added every five minutes. This was an increase compared to figures released the previous year. In 1996, about 4,000 Americans died waiting for transplantation with 55,000 more on waiting lists for organs. Tragically for at least one-third of these patients, death comes before a new organ. Statistics from Australia in 2008 revealed that there are 18,000 people on waiting lists and more than one person a week dies waiting, with the highest mortality occurring among patients waiting for hearts, lungs and livers where no real alternative short-term treatment exists.

Without doubt, not everyone who needs an organ eventually gets one. In an article, Childress explained that 106 persons are added to America's waiting lists each day: one person every 14 minutes while 17 patients die every day while waiting for an organ. According to figures, the waiting list of the united network for organ sharing has increased from 21,975 in 2000 to 32,722 in 2008. In the United Kingdom, there is a seven to one discrepancy between those requiring a kidney transplant and number of kidneys available. On the average over 3,000 people are added to the kidney waiting list each month that is an average of person every 14 minutes with 13 people dying each day waiting for a life-saving kidney transplant. In 2014, 4761 patients died while waiting for a kidney transplant and another 3,668 became too sick to receive an organ. Latest estimates reveal that there are currently 121,678 people waiting for life saving organ transplants in the United States of America. Of these 100,791 await kidney transplant as at 1/11/2016. The figures above show that at any given time and in any jurisdiction, there are hundreds of people waiting for transplants. Quite literally they are waiting for a new lease of life. The fact of the case stated is that many people die each year waiting for the organs they desperately need. This brings to fore the debate on whether organ transplantation still remains a lifeline for hundreds of thousands suffering from organ failure. This becomes more necessary considering the fact that a considerable number of these patients eventually die while on queue for organs.

With statistics available from various transplant centers and countries across the globe and with a plethora of moral, ethical, social and religious issues regarding donation, shortage and more importantly, allocation of organs, one can reasonably argue that organ transplantation has become a routine death row for those with organ failure.

5. Conclusion

The issue of organ transplantation has become the subject of intense bioethical debate because of the intricacies of organ donation, procurement and eventual surgery. The debate centers on a number of ethical, medical, legal and religious issues associated with the procedure. With available statistics, it is reasonable to assume that organ transplantation has become a death row for those waiting for organs as countless thousands die yearly while on transplant waiting lists, waiting for organs they never get.

Nevertheless, the success of transplantation cannot be overlooked neither can it be denied that it saves thousands of lives (as statistics also show) and gives a glimmer of hope to those suffering from various forms of organ failure. And with the exploration of alternatives such as xenografts, use of stem cells to produce matching tissues and organs, the use of genetic engineering technology to produce transgenic animals compatible for xenotransplantation, organ transplantation still remains a viable option for those with organ dysfunction

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