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Ethics of Organ Allocation: A Consequentialist Approach

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Abstract:
With the demand for organ transplantation greatly outweighing the supply of donated organs, two current ethical issues surround how to increase the number of available organs and how to allocate the organs upon donation. In this paper, I focus on the current organ allocation system and ways to amend the process. I suggest that the process should place the strongest consideration on the consequentialist principle in order that the best candidate is in receipt of the transplanted organ, which then increases the overall survival rate of the transplant. This approach maximizes the utility of the organ and the efficiency of the system as it increases the success rate and decreases the rejection rate of the transplanted organ. In order to accomplish this, the system should prioritize the likelihood for success after transplantation as opposed to current factors such as medical urgency, distance between organ donor and recipient, time on waiting list and previous donor status. Additionally, low priority should be given to individuals that harbor responsibility for their current medical condition and financial hardship should not limit access to transplantation. I conclude that these criteria should be treated with the heaviest weight, but other factors should not be completely ignored.
I. Introduction

Of the 120,000 plus Americans currently on the waiting list for organ transplantation, only thirty to forty percent will receive their desired organ within a year. As for the others, they will remain on the waiting list until an organ becomes available. And due to the extensive waiting time, an estimated seventeen Americans die daily waiting for an organ (Hansen). State laws, federal laws, federal regulations, and the United Network for Organ Sharing (UNOS) are the main governing bodies that rule the current organ allocation and transplanting process. State laws focus on issues pertaining to the donation process; federal laws outline the organ procurement, allocation and transplantation processes established by the Organ Procurement and Transplantation Network (OPTN); federal regulations provide further information about the functioning of the OPTN and organ procurement organizations (OPOs); and UNOS establishes the policies that OPOs, the OPTN and transplant hospitals must follow in order to be members of the OPTN (Crowe). Although organ allocation policies vary by organ, once an organ becomes available, there is a general process which is followed: the donated organ is typed, meaning that all relevant information pertaining to the organ donation, like blood and tissue type, size, and condition of organ, are entered into the UNOS database. Then, the database generates a pool of potential recipients that are considered compatible with the donated organ. Factors that help prioritize this pool of patients include the degree of mismatch in human leukocyte antigen (HLA), panel reactive antibodies (PRA), immune status, donor age, recipient age, medical urgency, length of time on the waiting list, distance between donor and recipient, and if a recipient has been a previous donor. Once the prioritization has been determined, the transplant centers have
one hour to accept or decline the organ based on a variety of factors that could affect the success rate of the transplant. If declined, the organ goes to the next patient on the list (Davis). As stated above, this is the general flow of determination, but there are additional factors that are taken into consideration for each organ. For kidneys, time on the waiting list is given heavy consideration although dialysis offers a life-sustaining alternative. UNOS views favorably if the recipient was a previous donor such as a living related kidney donor for a family member or friend as well. For pancreases, the primary determinant is zero-antigen mismatch with a given donor. For livers, hearts, and lungs, medical urgency in association with location are given the highest priority\(^1\) (Davis).

An obvious way to address this growing problem of supply and demand is to increase the number of donor candidates, a topic that is beyond the scope of this paper. Alternatively, another way is to address the current overall organ allocation process. With organ donation falling way behind the needs of organ transplantation, we cannot afford to lose such scarce resources by transplanting individuals who might jeopardize the life of the organ. So when argued on consequentialist\(^2\) grounds, the priority should be given to the patient that has the greatest resulting life expectancy after transplantation in order to maximize the utility of the transplanted organ. By maximizing the utility of the organ, I am referring to ensuring the longest life of the transplanted organ. Although the organ allocation process should place the strongest consideration on the consequentialist aspect, it should also be said that other factors should not be totally disregarded\(^3\).
II. Arguments in favor of maximizing the utility of the organ

i. The first argument would be that in order to maximize the success of organ transplantation and provide the greatest resulting life expectancy in that transplanted organ, one should place the heaviest weight on the probability for success after transplantation. To determine this, one must consider factors like donor-recipient match, the patient’s physiologic capabilities and behaviors. In this case, medical urgency, distance between organ donor and recipient, time on waiting list, and previous donor status should not be as heavily weighted as the condition and compatibility of the recipient. Additionally, I will address the other factors involved in the current allocation process and state why they should not be taken into such strong consideration.

The first factor to address is medical urgency. For example, if you had two patients waiting for a lung transplant, one in critical condition with an unknown chance for survival and the other a more stable patient, why should the medically urgent and perhaps more fragile patient receive the lung when the more stable patient would have the greatest rate for success? In cases like these, you have to focus on the long-term benefits of the organ and the patient. Transplanting the sicker patient may seem more appropriate in order to save his or her life, however, transplanting the more stable patient may better increase the chance of success for that transplant.

The second factor to address is location of the recipient. The country is divided into eleven geographic locations and organ allocation is guided by the principle of local patients having priority in order to reduce cold ischemia time, that being the amount of time between organ removal and transplantation. Location shouldn’t be so heavily weighted in situations where geographic location may better favor a less matched organ
for a local recipient. As a result, the less suitable local patient receives the kidney although the tissue matching to the donor was not as strong, leading to a higher chance for rejection or delayed transplant function. Occasionally, location barriers can be overcome in certain situations since the United States system allows patients to enroll on waiting lists in multiple regions (Freeman). In this situation, those with the financial means would have greater opportunity to report to more distant transplant centers within the narrow window of time allowed, causing an injustice in the allocation process.

The third and fourth factors to address are wait time and previous donor status, which are primarily used in determining kidney allocation. These factors shouldn’t have as much weight as the likelihood for organ success after transplantation. For example, a less matched organ should not go a patient with a longer wait time particularly in those on dialysis awaiting transplant since they are receiving a life-sustaining treatment. The patient should wait for the organ with the best matching to allow for greater success and benefit of the donated organ. With regards to a history of previous donor status, this should not be a strong consideration given a previous informed personal choice of donating an organ has no effect on his or her current situation.

An additional factor to address is age, as it ties in closely with the idea of greatest life expectancy after organ transplantation. For example, if the only factor separating two equal candidates is age, then the organ should go to the younger patient in order to maximize the utility of the organ and add to the overall life expectancy. For example, take the recent case with former vice president Cheney who received a heart transplant at the age of seventy-one years. This sparked a debate as to whether or not he was too old to receive a transplant as Dr. Eric Topol said, “The ethical issues are not that he had a
transplant, but who didn’t?” (NY Daily). In this situation, the heart has a greater chance for maximum utility in a younger individual than it does in former vice president Cheney as he is in his later years of life. So, the heart should have gone to a younger patient.

Another aspect that comes with age is innocence. Children are less likely to have participated in behaviors that lead to a particular condition that requires a transplant; therefore, they should receive higher priority if faced with age being the determining factor.

ii. The second argument would be that in order to maximize the success of organ transplantation and provide the greatest resulting life expectancy, one should not discriminate for financial reasons, but rather identify the best recipient candidate for the organ as discussed in previous arguments. One’s financial status should not limit the opportunity for transplantation in situations of well-matched organs. Instead, the patient should receive financial assistance in obtaining transplant medications to ensure better patient and organ survival.

iii. The third argument would be that in order to maximize the success of organ transplantation and provide the greatest resulting life expectancy, the individuals that harbor responsibility for their current medical condition should receive lower priority in the organ allocation process. For example, noncompliant diabetic patients whose behaviors lead to pancreas and kidney failure, alcoholics whose behaviors lead to liver failure, and smokers whose behaviors lead to lung failure, etc. have individual responsibility for their actions. If these individuals willingly participated in these
behaviors with the known consequences, they should not gain priority over an individual
with either a congenital or acquired condition. UNOS requires a six-month sobriety
period before any organ transplantation, but studies show that transplantation do not stop
an individual’s use of substance over time. One study showed that “moderate to heavy
alcohol consumption occurs in patients transplanted for ALD (alcohol liver disease)”
(Tang 140) and another study showed “high rates of tobacco recidivism among heart
transplant recipients.” (Mehra 1137). Although everyone has the opportunity for recovery
from addictive habits, the general trend of giving substance abusers an organ increases
the likelihood of organ failure as well as the development of other chronic medical
conditions related to these behaviors. If the recipient isn’t going to honor the transplant
then he or she doesn’t deserve the gift of organ transplantation. To clarify, I am not
saying that these individuals should never receive transplants, but rather I am saying they
should not receive a higher priority over individuals who are not responsible for their
medical condition.

Another situation involving self-destructive behaviors leading to transplant loss
involves medical noncompliance with medications. One might question the utility of
proceeding with a second transplant for this patient. In this scenario, priority for repeat
transplantation should be low similar to those previously mentioned with addictive
behaviors. Additionally, those individuals who experience transplant failure for reasons
beyond their control due to chronic rejection or medication toxicity should have lower
priority since there is a higher rejection rate with second transplants. According to the
UNOS database, the three-year transplant survival rate in re-transplanted patients is 53.7
percent compared to 77.4 percent in primary transplant recipients (Anderson-Shaw).
Seeing that the success rate for second transplants is lower, the organ should be transplanted into a first time recipient to maximize the probability for success.

III. Counterarguments and Responses

i. The first objection is to the argument pertaining to age being a determining factor in organ allocation. Stuart Flechner, a physician with the Transplant Center at the Cleveland Clinic in Ohio, said that he is against the principle of giving such a heavy weight to age of the transplant recipient in the allocation process. He says that there are many other factors that should weigh in on who has priority in the allocation process, such as social responsibility, involvement in one’s medical care, taking your medication, rehabilitation potential and other medical conditions. (Mantel). Also, one has to think about the responsibility of the patient because you don’t want to transplant an individual who won’t take their medicine and cause the body to reject to transplanted organ. For example, UNOS statistics show that the age group containing adolescents is the group that has the highest transplant loss. So, one could argue against adolescents receiving transplants when they are the most likely to rebel with medication compliance and to partake in high-risk behaviors. In cases pertaining to age, the older patient should receive the transplant because they are generally more responsible and thus likely to have a more successful transplant.

In response to objection one, transplantation of younger recipients provides more societal potential. The younger recipient will have an improved quality of life, as the transplant would allow them the potential for an education, job, family, and a chance for a longer life expectancy, which is something that the older patient has already had. This
idea is comparable to Robert Veatch’s “over-a-lifetime perspective,” as he concludes that the patient with the lesser amount of life experience is worse off and therefore more deserving of the transplant. To address the potential rebellion and high risk behaviors of the adolescents, I would suggest some mechanism to assist them through this developmental process such as transitioning programs, counseling or support groups to ensure compliance with medicines and care of the transplanted organ.

ii. The second objection is to the argument pertaining to transplanting the individuals who have limited resources. With the current system, finance and insurance status are important factors in determining allocation and research has shown that “the poor and uninsured are less likely to receive a transplant” (Laurentine). This is seen as an important factor because an individual should not be transplanted if they do not have the means to pay for it. Although Medicare and Medicaid programs offer assistance, it is not for a lifetime and most patients lose the assistance three years after their transplant or at the age of nineteen years. So, without financial assistance, the poor will not be able to afford their transplant care, which includes hospitalizations, outpatient visits and medications resulting in an increased probability of organ failure. If this were the case, then that transplant would be seen as ‘wasted’ considering it could have gone to a wealthier patient with more resources to benefit the organ survival.

In response to objection two, financial limitations should not be a death sentence for the less fortunate considering there is no difference between wealthier and less fortunate patients with respect to the need for an organ transplant. The only place for distinction comes with the ability to afford transplant medications, which is why I suggest
some mechanism that supports those in need of medication assistance. Some may question the value of this, but a study conducted by University of Maryland Medical Center revealed that “the medical system saves about $27,000 per year for each patient who has a transplant instead of remaining on kidney dialysis” and “after the first year, costs for the transplant patients averaged $16,043; mostly for medications to prevent rejection.” With these savings due to transplantation, there is ample opportunity to provide medication assistance to those in need. In support of the above-mentioned statistic, there is current debate in Congress over the H.R. 1428: Comprehensive Immunosuppressive Drug Coverage for Kidney Transplant Patients Act of 2013. This act is in the process of amending the Social Security Act to extend lifetime Medicare coverage of anti-rejection medications to all kidney transplant recipients. If the implementation is successful, this bill could be used to support similar cases in other organ transplantations.

iii. The third objection is to the argument pertaining to lower priority for organ allocation in individuals with known self-destructive behaviors. Dr. Scott Friedman stated, “after initial reluctance to transplant patients with alcoholic liver disease, it is now clear that transplantation offers an excellent survival advantage in appropriately selected patients, equal to that for other disease indications.” He mentions that six months of sobriety is used to predict recidivism, and how in the carefully selected individuals that the transplantation is cost effective. Additionally, alcoholism is seen as a disease so it should be treated like any other disease in need of a transplant and the fact that it is self-inflicted should not be a factor; the main idea is that they are in need of a transplant and, if sober,
should be eligible for consideration. This argument can also be applied to the other cases mentioned above, like noncompliant diabetics, smokers, etc.

In response to objection three, I would agree that alcoholism is a disease, however, I would argue that it has a large personal choice component to it as well. A study on the genetics of alcohol dependence showed that the heritability is about fifty to sixty percent range, meaning the remaining forty to fifty percent would be due to environmental factors (Dick). So with that being said, it is not worth the risk to transplant an individual who has the potential to relapse and put the transplanted organ at risk. Dr. Friedman also addressed the difficulty in appropriately choosing the patient. This idea can be applied to other self-inflicted needs for transplantation. So with such discrepancies, it would be better to transplant the individuals without the potential for recidivism to ensure the most utility of the organ.

IV. Concluding Thoughts

When researching the topic of organ allocation, my focus was on the allocation process and proposing a means of improving the efficiency by addressing one principle that should hold the most weight as opposed to considering multiple factors with equal weight. This would address a way to increase the organ availability by improving organ survival through lessening complications such as transplant rejection. My argument supports a consequentialist approach by addressing potential transplant outcomes and results in improved patient survival as well as organ survival through selection of the ideal candidate. Additionally, my proposal that younger age and financial hardship
should not be limitations for transplantation gives a voice to these otherwise vulnerable individuals.

In conclusion, I argue that the criterion to follow for determining the best allocation system is a consequentialist approach because it allows the system to prioritize the best candidate that will lead to the greatest survival and use of the organ. I believe the current allocation system is deficient of what I consider to be the most important factor of organ transplantation: allocating the organ to the patient with the highest probability for success and long term survival in order to maximize utility of the transplanted organ. For this to occur, I suggest that medical urgency, location, wait time and previous donor status should carry less weight in determining organ allocation. I argue for favorable distinctions concerning age as well as financial status but claim prior high-risk behaviors should receive lower priority. With that being said, such a proposed system should not be punitive and exclusionary to those in need of transplantation, but rather a propose modifications in the prioritizing of the organ allocation process.

End Notes:

1. Information about this can also be found on the United Network for Organ Sharing site.

2. The consequentialist model holds that the consequences of one’s behaviors are the basis for judgment about the rightness of that behavior. Therefore, the morally right act in organ allocation is the one that will produce a good outcome for the transplanted organ.

3. Additional information about ethical principle to be considered for organ allocation can be found on the Organ Procurement and Transplantation Network site.
Bibliography


