

Compensated Living Kidney Donation: A Plea for Pragmatism

Faisal Omar · Gunnar Tufveson · Stellan Welin

© Springer Science+Business Media, LLC 2009

Abstract Kidney transplantation is the most efficacious and cost-effective treatment for end-stage renal disease. However, the treatment's accessibility is limited by a chronic shortage of transplantable kidneys, resulting in the death of numerous patients worldwide as they wait for a kidney to become available. Despite the implementation of various measures the disparity between supply and needs continues to grow. This paper begins with a look at the current treatment options, including various sources of transplantable kidneys, for end-stage renal disease. We propose, in accordance with others, the introduction of compensated kidney donation as a means of addressing the current shortage. We briefly outline some of the advantages of this proposal, and then turn to examine several of the ethical arguments usually marshaled against it in a bid to demonstrate that this proposal indeed passes the ethics test. Using available data of public opinions on compensated donation, we illustrate that public support for such a program would be adequate enough that we can realistically eliminate the transplant waiting list if compensation is introduced. We urge a pragmatic approach going forward; altruism in living kidney donation is important, but *altruism only* is an unsuccessful doctrine.

Keywords End-stage renal disease · Dialysis · Transplantation · Compensated donation · Ethics · Cost-effectiveness · Public opinions

F. Omar (✉) · S. Welin
Division of Health and Society, Department of Medical and Health Sciences,
Linköping University, 581 83 Linköping, Sweden
e-mail: faisal.omar@liu.se

S. Welin
e-mail: stellan.welin@ihs.liu.se

G. Tufveson
Department of Transplantation Surgery, University of Uppsala, Uppsala, Sweden
e-mail: gunnar.tufveson@akademiska.se

Introduction

The combination of improvements in surgical methods, clinical management of post operative complications, and development of highly effective anti rejection drugs has made transplantation the most efficacious treatment for patients with end-stage renal disease [14]. Transplantation's marked advantage and concurrent increase in the incidence of end-stage renal disease, has resulted in an increase of patients opting for kidney transplantation [29]. This has not been accompanied with a corresponding increase in transplantable organs leading to the necessary rationing of kidneys amongst eligible recipients; which ultimately results in the death of numerous patients while waiting for a kidney to become available.

Lack of Kidneys

The prevalence of ends-stage renal disease in Europe is nearly 1,000 per million populations (PMP) [7].¹ Of these patients only between 20 and 30 percent are accepted on to transplant waiting lists; consequently many others that could benefit greatly are unable to undergo the life saving treatment. The council of the European Union has indicated that in order to decrease "both renal waiting patients and waiting times" an estimated 60 kidney transplantations PMP are needed [7]. This is a number that many jurisdictions fall short of reaching. For example in 2007, the overall number of kidney transplantations PMP in Sweden was 41.34, Denmark 31.26 and Finland 32.78 [37].

Expanding the Pool of Donors

The unremitting shortage of kidneys has resulted in the implementation of various measures over the years, designed to narrow the gap between supply and demand. These include the extension of the eligibility criterion for cadaveric kidneys to include the use of marginal (lower quality) kidneys, the acceptance of non-relatives (but emotionally related) as living organ donors, and the creation of organ procurement initiatives in various countries. Of particular interest for this paper is the recent trend of allowing non-directed living kidney donation. This is donation of a kidney to an unknown stranger.

The expansion of the pool of eligible donors has gone hand in hand with the decreased risks involved. Early on, the risk for living donors was only deemed acceptable in the case of related family members and later between individuals who share a strong and long term emotional bond. With improvements in surgical procedures, and post operative care for the potential donor, the risks associated with kidney donation have become quite low. A study in the United States estimates the mortality rate, for kidney donors, to be 0.03% [30]. To put this number in perspective here are some mortality rates for various occupations in the same country: fisherman: 0.142% (more than four times higher), pilots: 0.088%, refuse collectors: 0.042% [2].

¹ With an estimated population of 500 million this amounts to 500,000 individuals ESRD.

In addition to the decreasing risk to the donor, there is evidence that graft survival rates are higher for kidneys from living donors compared to cadaveric kidneys, which further contributes to the growing openness to non-directed donation [18].

Outline of the Paper

The point of departure for this paper is the newly emerging trend of non-directed living kidney donation in the transplant field in a number of countries including but not limited to the United States, Netherlands, Belgium, Austria, Switzerland, and Sweden in the past few year [7]. As of 2004, for example, the Swedish transplant society after a period of policy discussion moved to allow non-directed living donation of kidneys. This means that any adult over the age of 30 may come forward and volunteer one of their kidneys so long as they pass an exhaustive screening process.

We will give a short overview of the current system and the treatment options available for patients with end-stage renal disease. We will then introduce the focal points of non-directed compensated donation as a new category, whose benefits we will highlight.

Along the way we will discuss whether introducing this new category threatens important principles and values.

It is difficult to know, with precision, how expanded the donor pool will become in different international contexts if financial rewards were introduced; however with the aid of currently available data about public opinions on compensated donation we will illustrate that the introduction of financial rewards should address the current shortage of kidneys.

We do not purport to introduce new arguments about compensated donation in this paper which have not already been discussed in the literature to varying degrees of sophistication. However, our contribution is the synthesis and subsequent analysis of a number of related arguments and issues in compensated kidney donation which are often discussed separately. Our aim is to argue for introducing a policy of compensated living kidney donation, while providing a comprehensive and clear discussion of important ideas in the debate.

An Important Feature: A National Health Care System

There are some important features which form the background for our discussion. The discussion is best tailored for a European situation with a national health care system. A further feature is an adequate welfare system that meets the basic needs of its citizens.

Countries with a nationally funded health care system would be ideal for this proposal since all matters related to the retrieval, compensation, and allocation of kidneys can be handled centrally by the health care system without any third parties. All medically eligible patients can have access to an organ regardless of their financial circumstances.

Furthermore, potential donors in a nationally funded health care system will have access to free health care post operatively and well beyond, and should not, following their act of kindness, be subject to encountering any difficulty in securing medical insurance which can be the case in the absence of a national health care system [46].

The Current System: Dialysis

End-stage renal disease patients in most western countries have a number of (legal) choices when diagnosed. They can either choose to be transplanted (pending medical approval), go on dialysis, or some patient may choose not to undergo any further treatment and allow the disease to take its course. Even when listed on the kidney transplantation list, patients often undergo dialysis until a kidney becomes available unless they can provide a donor. We will in this section briefly discuss two broad categories of dialysis treatment before turning our attention to traditional and newly emergent sources of kidneys in the case of transplantation.

Hemodialysis

This is the most widely used form of dialysis. It involves the removal of blood from the patient through permanent access holes in the arm and running the blood through a dialyzer which has a semi-permeable membrane designed to filter the toxins from the blood before it is returned in to the patient's body. This treatment is usually carried out in a hospital or out patient clinic at least three times a week, each session lasting four to five hours.

Peritoneal Dialysis

The distinguishing feature of this treatment is that the filtering abilities of the peritoneum membrane (lining of abdominal cavity) is used to remove toxins from the blood after the abdominal cavity is filled with a dialysis solution. The patient (or care giver) is responsible for draining, and refilling the solution, without having to report for scheduled hospital treatments, thus increasing personal control. Nonetheless the procedure is still time consuming as it must be carried out four times daily each taking between 30 and 45 minutes [40]. Patients can utilize this form of dialysis for a maximum of 4–6 years due to the risk of peritoneum failure, and other potentially dangerous anatomic changes in the tissue [25].

Some side effects of the two categories of dialysis include: low blood pressure, muscle cramps, infection and clotting of dialysis access points, hernias, malnutrition, and sexual dysfunction [40].

The Current System: Transplantation

Cadaveric Donation

Cadaveric donation is a long established practice and has some advantages from an ethics perspective. Since the deceased does not need the organ anymore there is

absolutely no chance of causing harm or coercion. Furthermore it is accepted by the major monotheistic religions [16].

Organ donations from the deceased are usually non-directed. Neither the deceased nor the relatives, officially at least, can decide to whom or to what group donated organs should go. The only way wishes are taken into consideration is regarding whether there should be a donation at all; the donation should not be contrary to the expressed wish of the diseased. There seems to be relatively broad consensus on these issues.

Most countries operate under a system of explicit consent, usually given by the donor (when alive) or if their will is unknown then by close relatives. Sweden adheres to a system of legally presumed consent, where if the will of the deceased is unknown consent is assumed. However, prior to all donations close relatives must be contacted and they can veto donation [13]. Unfortunately the need for kidneys is not met through cadaveric donations alone.

Living Directed Donation

Patients who are fortunate enough to have a family member or friend who is both suitable and a willing donor, transplantation can be expedited and the need for lengthy dialysis treatment eliminated. This type of donation is very specific, and is usually an agreement that is reached within the family, or between friends. It is without monetary reward, but there is presumably an emotional reward; it is done out of love and sympathy for a specific person [36].

It has been argued that living directed donation especially when the organ is provided by a family member often carries with it a level of coercion due to the pressure and sense of duty that loving relationships place on the donor [28]. In the case that a family member is a suitable match, it can prove difficult to reject the role of kidney donor. In some instances, medical transplant teams have been reported to withhold the true results of the matching tests in order to alleviate the pressure on potential donors who wish not to go through with the procedure [39].

Unregulated Organ Trade

The lack of transplantable kidneys has created the phenomenon of ‘transplant tourism’ in which poverty stricken persons in the developing world are reduced to organ vendors at the mercy of brokers who profit from this thriving business [4]. In Sweden, similar to the vast majority of countries, the sale of or trade in organs is illegal under law SFS 1995:831. The legislation prohibits “intentional gain-taking from delivering, receiving, or procuring biological material”; violation of the law can carry a fine or a term of imprisonment [33].

Despite this legislation, it does not apply to patients who travel to the developing world to purchase a kidney for transplantation. The patient is not held accountable under this law, and can return to Sweden to receive post operative care. This is in contrast to the kidney donors who are usually left to their own devices to survive any post operative complications [5].

Newly Emergent Sources of Kidneys for Transplantation

Recently a new category of living kidney donors has emerged, the *altruistic* or non-directed living donor. There have also been developments in other categories of living directed donation.

Non-Directed Donation

The allocation regime of non-directed donation is modeled on the present cadaveric donation system with an unknown recipient and no material rewards (altruism). Often in the case of these donations no reward in the form of love or gratefulness from the recipient can be given to the donor since severe anonymity is often strongly encouraged, or absolutely required as is the case in Sweden [26].

The evaluation process for potential non-directed donors is rather lengthy, and is designed to allow them every possibility of withdrawing from the program if they are to change their minds. From the start there has been some unease surrounding these donors, as it is very rare to be willing to donate a kidney to a complete stranger. Many of the programs go to great length to insure that the donation decision is not due to psychological problems.²

In Sweden the guidelines follow the principles set in the US national conference report on non-directed donation. A current paper outlining the practice at the Sahlgrenska University hospital in Göteborg offers some insight into the protocol followed in such donation procedures which will be helpful to summarize for our purposes. There is no active recruitment. Following an initial telephone interview, the prospective donor receives an information package. After reading the information, the donor must actively re-initiate contact. All prospective donors are carefully evaluated by a multidisciplinary team consisting of: transplant surgeon, coordinator, nephrologists, social worker; and psychiatrist. Pending a final approval the donor is given a three month cooling off period to reconsider [26].

Directed Living Donation to “Strangers?”

Another newly emergent phenomenon is the soliciting for living donors. Someone in need of a kidney appeals in the newspapers or on the internet for help [45]. Such appeals can be very emotional and moving. This can hardly be outlawed. Anyone has a right to publish an appeal asking for something—so long as it is not inciting to criminal activities. This means that as long as no money is promised, it can hardly be either illegal or unethical to make an appeal. It may be problematic for the transplantation centers, but presumably the donor and the recipient will turn up as friends.

² An example could be someone who is prompted by a feeling of guilt. Giving a kidney can be a way of redemption. The general perception, shared by us, is that there are better ways of dealing with guilt than surgically removing a kidney.

A Proposal for a System of Compensated Donation

We support the introduction of a compensated system of kidney donation, which is something that has also been proposed by others [11, 28]. The central idea is that there will be an assigned national agency which will offer compensation to healthy volunteers to donate one of their kidneys. Those who sign up will be in a register to be called on when there is a need. The voluntary prospective donors may change their mind and drop out of the program at any point up to the moment of anesthetization in the operation theater. No money will be given before the actual donation takes place. The allocation of the kidneys should follow the same system as that of cadaveric kidneys.

We recommend that the screening processes for such potential donors be as thorough as the current system for non-directed donation discussed above. The exhaustive medical, social and psychiatric evaluation should insure as it currently does that only suitable individuals, with appropriate motivations are accepted for the procedure. In order for the system to be consistent and fair all non-directed donations must be compensated at the same rate.³

We believe that directed donation, between family members for example, should also be compensated, but not at the same rate. Directed donations often carry with them an emotional reward due to the relationship between the donor and recipient. We propose that, considering this emotional reward, the financial compensation should be set lower, perhaps at half of the compensation for non-directed donation.

To insure effectiveness we believe the compensation should not be greater than the savings made by the health care system from the elimination of dialysis treatments (please see “[Cost Savings](#)” section for more details on potential savings). The payment should be calculated, and set by the health care system, and as such should be a fixed amount that is not subject to negotiations. Since the state will be responsible for handling of all monetary matters, there is no need for donor and recipient to engage with one another and hence the strict anonymity that is currently practiced in non-directed donations could be maintained.

Supporters of the incentive model in the United States have asserted that these organs can easily be allocated according to the existing algorithm which underlies the cadaveric kidney allocation system at the united network for organ sharing (UNOS) [28]. In European countries, a single network usually works across international borders such as Scandia transplant which is responsible for (cadaveric) organ sharing activities between Sweden, Denmark, Norway, Finland, and Iceland [17]. In these instances, countries will have to reach an agreement about the distribution of compensated kidneys. We will briefly outline some of the advantages of this proposal before turning to several of the arguments marshaled against it.

³ In order not to risk alienating donors who wish not to be directly compensated, there should be an alternative which easily allows donors to direct a part (or all) of the compensation to a reputable charity of their choice.

Benefits of Compensated Organ Donation

Decreasing the Black Market Trade

We believe that it is regrettable, but understandable from the point of view of a suffering patient, every time a citizen from the developed world seeks a kidney in the organ black market. While the recipients have the good fortune of returning to their home country where they often receive government funded care of the highest caliber, the organ donors are left to their own devices with no one to advocate on their behalf. Furthermore in societies where the act does not carry high moral status the donor may in some instances be marginalized in their society after the donation and long after the small sum of money has been spent [5].

The goal in our opinion should be for each country, or larger region such as the EU, to aim for organ transplant self-sufficiency in order to decrease the demand created by its citizens for unregulated organ markets. Countries need to find a home grown solution to alleviate the pain experienced by end-stage renal disease patients using organs retrieved ethically from within its own borders [8]. An effective system of compensated donation will help decrease the demand for 'foreign' organs on the black market. At present, it is difficult to envisage any other way of radically decreasing the black market in kidneys.

Decreasing Inequalities

a) ...For Those Who Lack a Related Donor or a Friend

Apart from the possibility of obtaining a cadaveric kidney, one of the deciding factors for whether a patient lingers on dialysis for a protracted period of time, or is transplanted quickly is whether they are able to produce a willing, and suitable family member or friend who wishes to donate.

Surely it is not difficult to foresee that the ability of different individuals to have access to such potential donors differs, and often for reasons beyond ones control. Those with the gift of a large family unit would have a higher chance of accessing potential donors, while those without find themselves at a great disadvantage. The size of the family unit, and the relationship that one has with its members is a form of social capital that not all possess [15].

b)... For Those Who Cannot Compete in Soliciting Organs

If soliciting organs is allowed—and as discussed above it is difficult to outlaw if non-related friends are allowed as donors—some will not be as successful in the solicitation. A form of social capital that can play a significant role in the chances of finding eligible donors is any extended social groups to which an individual belongs. For example a long time church member could arguably have a higher chance of receiving a kidney through a congregation member than a person who does not belong to a church or any other well connected social group. Individuals who are marginalized from the larger society may find it even more difficult to find a

possible donor. For instance, in a conservative society a new immigrant far removed from relatives, and who has not yet formed the social capital necessary in their new host country may have difficulty finding a willing living donor.

Another source of inequality may be an individual's limited capacity to articulate their need to the community from which they wish to seek a possible living kidney donor. We discussed above the emergent trend of seeking potential donors on the internet where a person presents their case in the hopes that someone is touched by their circumstance and comes forward as a directed donor [45]. This exercise requires that one possesses a set of social capacities, to articulate their need well, and to seem as an appealing recipient of the donation.

This can be contrasted to an individual who may suffer from any social or psychological disorder that limits their capacity to compete with others who may be far more gifted socially; and hence are not privy to the same possibilities of securing an organ as are others in society.

Decreasing Dependence on Dialysis

The global count of end-stage renal disease patients receiving dialysis treatment was estimated to be at 1.1 million in 2001. The expenditure associated with the treatment of this population in the same year was between 70 and 75 billion USD. With the increasing incidence of conditions such as diabetes which can lead to end-stage renal disease, the global prevalence of end-stage renal disease is projected to reach 2 million patients by the year 2010 [27]. Decreasing dependence on dialysis has two major benefits, namely they are cost saving for the health care system and quality of life improvements for patients.

a) Cost Saving

Cost-effectiveness analysis plays an increasingly important role in today's health care decision making. With the ever increasing range of health technologies, decision makers use this tool to calculate the return on investment for various procedures as measured both by direct cost savings, and gains in quality of life for patients. Kidney transplantation demonstrated a cost-effectiveness advantage over dialysis as early as 1968, a finding which has since been validated by others [23, 43].

The cost savings of transplantation as compared with dialysis is central to this discussion since it represents the source of revenue to finance the proposed system of compensated donation. Hence not only must transplantation be cost effective compared with the alternative, but it must be so by a significant margin to provide a sufficient compensation for potential donors. The cost of dialysis in Sweden is comparable to that of the United States, and as such a cost-effectiveness study of payment for living donors by Matas and Schnitzler provides some useful and relevant insights for our current discussion [29, 44].

Matas and Schnitzler [29] have specifically calculated both the break even, and cost-effect payments which can be made to potential donors in a compensated system as a result of the cost savings made from the use of transplantation versus dialysis. The break even point is a rather modest estimate, and only measures the

direct cost savings from the elimination of dialysis treatment over a twenty year period, in which case a payment of nearly \$95,000 could be made to potential donors without increasing overall health expenditure in the treatment of end-stage renal disease. Going a step further however, the authors also calculate the cost-effective payment, which additionally includes the monetary value of gains in quality added life years (QALY) for transplant recipients, which is an important and routine part of health economic assessments. In this case a payment of up to \$250,000 to each potential donor is possible while still being cost-effective. Quite frankly both these payments are much higher than what would be needed to pay potential donors in our opinion, However, it clearly illustrate the financial advantage of transplantation versus dialysis. It is noteworthy that the above calculations do take into consideration, adding to the strength of the finding, a number of important factors including: patient survival, cost on dialysis, graft survival, death with function, death after graft loss, cost of organ acquisition, cost of transplant, maintenance costs with graft function, and cost of return to dialysis.

One possible concern about the long term cost savings which could arise is whether potential compensated living donors may be at risk for future health care problems, which would essentially increase overall health care costs. This concern can be alleviated by evidence reported by Hartmann et al. that living donors actually demonstrate a survival advantage compared to those of the background population [19]. This is explained by the selection bias created during the screening process since only the fittest potential donors are accepted for the procedure. It can be imagined that under a system of compensated donation which results in sufficient numbers of potential donors the screening process can be as thorough, hence insuring that only those individuals judged not to be at risk for future health problems as a result of the procedure would be accepted.

b) Quality of Life

Despite the tangible, and calculable savings made by the use of transplantation, these savings in our opinion pale in comparison to the benefit gained by the recipient of a kidney transplantation which are often beyond what the figures alone are able to capture.

For many patients receiving a healthy kidney is a second chance at a normal life, a possibility to get back into society, and peruse their dreams, to shed the sick role, and rediscover their former livelihood [12]. The patient no longer loses many valuable hours weekly at dialysis centers, and more hours coping with the side effects of the treatment. This can facilitate the return of such patients to regular daily activities such as their occupation which may have been difficult while on dialysis.

Medical Benefits

From a medical perspective, it is now well recognized that live unrelated grafts in terms of patient survival rates are better than cadaveric transplants, and are similar to living related donor transplantations [38]. Data also indicates that “survival with

a kidney transplant exceeds survival on dialysis [32]. Furthermore research is currently pointing to the desirability of preemptive transplantation (before the initiation of dialysis), in order to obtain the best possible results for patients with end-stage renal disease where the option for a preemptive transplant is available; this is due to the positive correlation between minimizing time spent on dialysis and positive results post transplantation [21].

Can a Compensated Donations System Survive the Ethics Test?

We will now discuss if a compensated donations system is ethically acceptable. No discussion of this subject would be complete without touching upon the themes of: coercion, exploitation, commodification of the human body, and dignity.

Coercion

A predominant argument that often surfaces in the discussion about compensated donation is the coercion that such an incentive may place on potential donors. It is argued that the monetary compensation would lead the poor to donate organs against their best judgments. If an individual is led to donate in order to secure the basic necessities of daily life it is indeed unethical. It is regrettable whenever such conditions are present anywhere in the world. However, in a welfare society with a national health system where all basic needs are guaranteed to all individuals irrespective of social standing, economic situation, gender, and ethnicity, it can be argued the potential donors would not be coerced, by the financial gain.

However, in one way some potential donors can be said to be doing something that they wished to avoid. Had there not been compensation, they would not have stepped forward as donors (indeed, this must happen if the program is to be successful.) But this is a common feature of many choices we make without considering them coercive. Some of us would have preferred to collect our salary without doing the work associated with it. Still we willingly and freely (without coercion) work, because this is the only way to receive the money. Coercion is not just having someone do something that a person would have preferred to avoid; coercion always involves a component of forcing [42]. However, in a developed country with many employment and business opportunities, compensated donation will not be the only way to obtain that sum of money. No one has to donate a kidney in a welfare state to be able to survive.

Furthermore, coercion is something that can occur in current related directed donation. The pressure either external, or internal, that a 'would be donor' feels when faced with the responsibility of taking on such a role may be quite strong. While the state can take responsibility to provide basic elements that citizens need to thrive, it cannot guarantee the intimate relationships which one feels may be lost or seriously deteriorate if they refuse to become donors.

A compensated system, which results in a sufficient number of kidneys, would insure that such coercion is removed from those who feel otherwise trapped into becoming living donors. So long as consenting adults autonomously choose to go

forth with a compensated donation, in a system with an exhaustive evaluation process, designed to allow ample opportunities for reconsideration and withdrawal, coercion will be absent or minimal.

Exploitation

Another point of controversy which may arise is the belief that a system such as the one proposed here may lead to the exploitation of certain individuals in society, mainly the disadvantaged. This is what happens today in the black market.

As a way of addressing this, western countries who are a substantial source of organ buyers should find ways to halt this flow, that threatens to divide the world into “organ selling, and organ buying nations” and aim for organ self-sufficiency [1]. Our present system is already exploiting the poor in the developing world—as long as transplant tourism is not vigorously combated like we do with other crimes. However, it wouldn’t be very humane to combat the organ trade by placing patients in jail. Nor can we confiscate what they obtained illegally, namely their kidneys. A system of compensated donation in a welfare state is a much more appropriate way of addressing the exploitation of poor kidney vendors in the developing world.

Moreover, it seems that it is exploitive of us as a society to demand that all individuals who are willing to part with a kidney do so strictly under pure altruism. It seems more justified to reward those of us who are willing, ultimately for the benefit of fellow citizens, to donate an organ. After all, we compensate other socially beneficial activities with monetary rewards. Foster families, for example, are compensated by the state for rearing children under state guardianship; they are not expected to provide this valuable service on pure altruism.

It is important that the compensation given for the donation is sufficiently generous. Otherwise, there is a risk that only the very poor or marginalized will step forward. The savings for society by the decrease in the costs from dialysis are such (see above) that this can easily be done inside the present health care budget. As an extra precautionary measure, we believe that no donors under a certain age, say, 30 should be accepted to ensure that donors have reached a certain level of maturity.

Commodification of the Human Body

It is often claimed that anything apart from pure non-monetary donation of an organ will constitute a commodification of the human body. Commodification is a morally loaded concept. There is a factual part which is spelled out in different ways; depending on how this is done compensated donation may or may not constitute commodification [34]. Commodification related concerns which are cited in kidney compensation are often “mixed up with concerns about the effects of poverty, sexism, and racism on the would-be sellers” [34] p. 8.

The discussion of the possible commodification of the human body can best be set in the framework spelled out by the American political scientist Michael Walzer in ‘Spheres of Justice’ [41]. There are different spheres in society where the distribution of goods is done by different moral criteria. What is just and right differs between the spheres. In the market sphere justice is spelled ‘money’. In the

academic sphere justice is spelled ‘scientific merit’. Many would understandably be upset if someone can purchase an academic degree. However, the market sphere is, as noted by Walzer, intruding in other spheres.

In many welfare states, the market has not encroached into health care as much as it has in the United States. However, even in welfare states health care does not function solely on altruism. Physicians, nurses and other personnel are paid salaries. We do not regard this as (inappropriate) commodification of their services, nor do we doubt that many of them chose their profession out of a wish to do good for others.

To what sphere does the human body belong? Obviously, in all countries monetary rewards for bodily work is allowed. This is not undue commodification. Similar arguments have been put forward for compensated organ donation [10]. Compensated donation does not turn the human body into property; people will neither have the right to sell or buy kidneys at a market as is the case in the unregulated black market.

Dignity

The concept of human dignity is by no means a simple concept [31]. It has deep roots in Kantian thinking and has moved to the forefront in the European Union. It is an important concept in both health care and politics, as it is coupled to the ideas of autonomy and respect for persons [20].

Human dignity is tied to the human person, not to the human body as such. Amputating a leg to save ones life is not considered as impeding on ones dignity as a human being. The usual understanding is that donating a kidney without monetary compensation does not impede dignity either. It is an act of high moral status. We simply cannot understand how a reasonable compensation for donating a kidney can be contrary to human dignity.

There is another meaning of dignity often used, namely social dignity which is related to self-respect and the perception by others [22]. We do not believe that compensated donations will be perceived as undignified by the donors, the recipients or the public. Such a claim (that compensation will impair social dignity) should be investigated empirically. It is important that concurrent with a proposed system of compensated donation, we as a society must be mindful in fostering an environment where donors are seen as “heroes” who provide an invaluable service to society [9]; the compensation in itself need not eclipse the altruistic component of the act, but should rather be seen as a facilitator of altruism.

Public Opinions

The proposal of a compensated donation system in our view passes the ethics test. However, there remains another equally important aspect which must be adequately considered before such a proposal can be effectively applied, namely the publics’ attitudes.

Two recent studies which have measured the public attitudes towards incentives for living donation have yielded some useful insight which is quite relevant for our current discussion. In the first, 28% of a nationally representative sample of the American population was in favor of direct government compensation for living donors [3]. Similarly in a study by Kranenburg et al. [24] it is reported that 25% of the Dutch population found it desirable or very desirable for health insurance companies to introduce financial incentives to increase the rate of kidney donations.

In the Dutch study, 5% and 0.5% of the respondents indicated that there is a great or very great chance, respectively, that they would donate a kidney under a system of compensated donation of €25,000 or life time health insurance [24]. With an adult population (18–65 years) of 12 million this corresponds to 660,000 adults with a great or very great chance of donating a kidney if compensation were a reality [6].

We should certainly proceed with caution when interpreting these survey results since reported patterns of behaviors in this type of survey may not be an accurate indicator of actual behavior in the event that such a choice was actually possible. The only way to accurately measure the actual behaviors however, would be if a pilot project of compensated donation were to be put into place.

Bearing in mind this need for caution we will only consider the 0.5% of the population who reported a very great chance of donating if compensation were a reality. This small percentage translates into 60,000 possible donors which far exceeds the current number of patients (1,000–1,500) on the kidney transplant waiting list in the Netherlands [35]. In fact only a very small fraction (2.5%) of the 60,000 individuals would be required to address the waiting list. Finally the authors of the study chose a compensation figure that falls far short of the saving made by the health care system from the elimination of dialysis treatment; hence it is conceivable that a larger compensation would result in even greater numbers of possible donors which would enhance the quality of the donor pool. This while not incurring any additional health care costs, or better yet providing a savings to the health care system and larger society.

A Plea for Pragmatism: Altruism only is not Enough

Some practical questions remain. What percentage of the general public would need to be in favor of such a program for it to be implemented as a policy? Must there be a huge up swell of public support for such a proposal? We think that the most important support from a practical perspective is that of a sufficient proportion of the general population—resulting in the necessary number of kidneys—and that transplant recipients and professionals in the field are also in favor of such a proposal. Before actually introducing a program of compensated donation it is necessary to empirically investigate the acceptance.

It is our experience that the strongest opposition is actually related to the perceived lack of altruism in the proposal for compensated organ donation. We think this is misguided. First of all, there will still be an altruistic component, we believe, among many of those who sign up for such donations. A compensated donation retains an altruistic component—although other motives may also play a role. The

compensation a potential donor receives does not fully capture that value of their act hence their remains an altruistic component to the act. Compensation for donors can best be viewed as a facilitator for altruism rather than a replacement of it.

Second, it should be realized that it has been a long time since our societies, including health care and social assistance, were run entirely on an altruistic basis. Physicians, nurses and other personnel are paid salaries for their work. Why not run the health service entirely on altruism? The answer is very simple. We do not believe enough people will come forward to fill the need. Salaries are eminently compatible with altruistic doctors and nurses. Hence, altruism is important, but *altruism only* is an unsuccessful doctrine. The same applies to the issue of living kidney donations.

At last, a compensated system of donation may alleviate the lack of kidneys, will not harm donors (beyond what we already accept), and by establishing a national or regional self-sufficiency in kidneys we will eliminate our contribution to the demand driving the black market. We think it is ethically mistaken to allow some abstract principle (like altruism only which is abandoned in other areas) to hinder the realization of helping patients with end-stage renal disease—if this can be done with a favorable risk benefit ratio.

References

1. Bakdash, T., & Scheper-Hughes, N. (2006). Is it ethical for patients with renal disease to purchase kidneys from the world's poor? *PLoS Medicine*, 3(10), e349. doi:10.1371/journal.pmed.0030349.
2. BLS. (2006). US Bureau of labor statistics from <http://www.bls.gov/iif/home>.
3. Boulware, L. E., Troll, M. U., Wang, N. Y., & Powe, N. R. (2006). Public attitudes toward incentives for organ donation: A national study of different racial/ethnic and income groups. *American Journal of Transplantation*, 6(11), 2774–2785. doi:10.1111/j.1600-6143.2006.01532.x.
4. Bramstedt, K. A., & Xu, J. (2007). Checklist: Passport, plane ticket, organ transplant. *American Journal of Transplantation*, 7(7), 1698–1701. doi:10.1111/j.1600-6143.2007.01847.x.
5. Budiani-Saberi, D. A., & Delmonico, F. L. (2008). Organ trafficking and transplant tourism: A commentary on the global realities. *American Journal of Transplantation*, 8, 925–929.
6. CBS. (2008). Central Bureau of statistics, statistics Netherlands from <http://www.cbs.nl/en-GB/menu/organisatie/default.htm>.
7. CEU. (2007). Council of the European union—organ donation and transplantation: Policy actions at EU level 1–68.
8. Daar, A. S. (2004). Paid organ procurement: Pragmatic and ethical viewpoints. *Transplantation Proceedings*, 36(7), 1876–1877. doi:10.1016/j.transproceed.2004.08.128.
9. Davis, C. L., & Delmonico, F. L. (2005). Living-donor kidney transplantation: A review of the current practices for the live donor. *Journal of the American Society of Nephrology*, 16(7), 2098–2110. doi:10.1681/ASN.2004100824.
10. de Castro, L. D. (2003). Commodification and exploitation: Arguments in favour of compensated organ donation. *Journal of Medical Ethics*, 29(3), 142–146. doi:10.1136/jme.29.3.142.
11. Erin, C. A., & Harris, J. (2003). An ethical market in human organs. *Journal of Medical Ethics*, 29(3), 137–138. doi:10.1136/jme.29.3.137.
12. Fisher, R., Gould, D., Wainwright, S., & Fallon, M. (1998). Quality of life after renal transplantation. *Journal of Clinical Nursing*, 7(6), 553–563. doi:10.1046/j.1365-2702.1998.00189.x.
13. Gabel, H., & Rehnqvist, N. (1997). The Swedish national donor register. *Transplantation Proceedings*, 29(8), 3226–3227. doi:10.1016/S0041-1345(97)00884-1.
14. Ghods, A.J., & Savaj, S. (2006). *Iranian model of paid and regulated living-unrelated kidney donation*. 1, 1136–1145.

15. Giles, S. (2005). An antidote to the emerging two tier organ donation policy in Canada: The public cadaveric organ donation program. *Journal of Medical Ethics*, 31(4), 188–191. doi:10.1136/jme.2003.002931.
16. Gillman, J. (1999). Religious perspectives on organ donation. *Critical Care Nursing Quarterly*, 22(3), 19–29.
17. Grunnet, N., Asmundsson, P., Bentdal, O., Friman, S., Madsen, M., Persson, N., et al. (2005). Selected activities in Scandiatransplant. *Transplantation Proceedings*, 37(8), 3243–3247. doi:10.1016/j.transproceed.2005.09.064.
18. Haberal, M., Emiroglu, R., Moray, G., Karakayali, H., & Arslan, G. (2002). Living-donor kidney transplantation: Single center experience. *Transplantation Proceedings*, 34(6), 2056–2059. doi:10.1016/S0041-1345(02)02850-6.
19. Hartmann, A., Fauchald, P., Westlie, L., Brekke, I. B., & Holdaas, H. (2003). The risk of living kidney donation. *Nephrology, Dialysis, Transplantation*, 18(5), 871–873. doi:10.1093/ndt/gfg069.
20. Horton, R. (2004). Rediscovering human dignity. *Lancet*, 364(9439), 1081–1085. doi:10.1016/S0140-6736(04)17065-7.
21. Innocenti, G. R., Wadei, H. M., Prieto, M., Dean, P. G. M., Ramos, E. J., Textor, S., et al. (2007). Preemptive living donor kidney transplantation: Do the benefits extend to all recipients? *Transplantation*, 83(2), 144–149. doi:10.1097/01.tp.0000250555.46539.65.
22. Jacobson, N. (2007). Dignity and health: A review. *Social Science and Medicine*, 64(2), 292–302. doi:10.1016/j.socscimed.2006.08.039.
23. Kalo, Z. (2003). Economic aspects of renal transplantation. *Transplantation Proceedings*, 35(3), 1223–1226. doi:10.1016/S0041-1345(03)00199-4.
24. Kranenburg, L., Schram, A., Zuidema, W., Weimar, W., Hilhorst, M., Hessing, E., et al. (2008). Public survey of financial incentives for kidney donation. *Nephrology, Dialysis, Transplantation*, 23(3), 1039–1042. doi:10.1093/ndt/gfm643.
25. Krediet, R. T., Van Esch, S., Smit, W., Michels, W. M., Zweers, M. M., Ho-Dac-Pannekeet, M. M., et al. (2002). Peritoneal membrane failure in peritoneal dialysis patients. *Blood Purification*, 20(5), 489–493. doi:10.1159/000065202.
26. Lennerling, A., Fehrman-Ekholm, I., & Norden, G. (2007). *Nondirected living kidney donation: Experiences in a Swedish transplant centre clinical transplantation*, 1–5.
27. Lysaght, M. J. (2002). Maintenance dialysis population dynamics: Current trends and long-term implications. *Journal of the American Society of Nephrology*, 13(Suppl. 1), S37–S40. doi:10.1159/000049148.
28. Matas, A. J. (2007). A gift of life deserves compensation: How to increase living kidney donation with realistic incentives. *Policy Analysis*, 604, 23.
29. Matas, A. J., & Schnitzler, M. (2004). Payment for living donor (vendor) kidneys: A cost-effectiveness analysis. *American Journal of Transplantation*, 4(2), 216–221. doi:10.1046/j.1600-6143.2003.00290.x.
30. Matas, A. J., Bartlett, S. T., Leichtman, A. B., & Delmonico, F. L. (2003). Morbidity and mortality after living kidney donation, 1999–2001: Survey of United States transplant centers. *American Journal of Transplantation*, 3(7), 830–834. doi:10.1034/j.1600-6143.2003.00126.x.
31. Nordenfelt, L. (2004). The varieties of dignity. *Health Care Analysis*, 12(2), 69–81. doi:10.1023/B:HCAN.0000041183.78435.4b. (discussion 83–89).
32. Norman, D. J. (2005). The kidney transplant wait-list: Allocation of patients to a limited supply of organs. *Seminars in Dialysis*, 18(6), 456–459. doi:10.1111/j.1525-139X.2005.00088.x.
33. Pattison, S. D. (2003). Paying living organ providers. *Web Journal of Current Legal Issues* 3, from <http://webjcli.ncl.ac.uk/2003/issue3/pattinson3.html>.
34. Radin, M. J. (1996). *Contested commodities*. Mass, Cambridge: Harvard University Press.
35. Renine (2008). Netherlands end stage renal disease registry from <http://www.renine.nl/index.php>.
36. Sanner, M. A. (2005). The donation process of living kidney donors. *Nephrology, Dialysis, Transplantation*, 20(8), 1707–1713. doi:10.1093/ndt/gfh861.
37. Scandiatransplant.s (2007). from <http://www.scandiatransplant.org/>.
38. Sever, M. S., Kazancioglu, R., Yildiz, A., Turkmen, A., Ecder, T., Kayacan, M., et al. (2001). Outcome of living unrelated (commercial) renal transplantation. *Kidney International*, 60(4), 1477–1483. doi:10.1046/j.1523-1755.2001.00951.x.
39. Simmerling, M., Frader, J., Franklin, J., & Angelos, P. (2007). When duties collide: Beneficence and veracity in the evaluation of living organ donors. *Current Opinion in Organ Transplantation*, 12(2), 5. doi:10.1097/MOT.0b013e3280951965.

40. Stein, A., Fox, C., & Judd, S. (2002). *Kidney failure explained*. London: Class Publishing.
41. Walzer, M. (1983). *Spheres of justice: A defense of pluralism and equality*. New York: Basic Books.
42. Wertheimer, A. (1987). *Coercion*. Princeton, NJ: Princeton University Press.
43. Whiting, J. F., Woodward, R. S., Zavala, E. Y., Cohen, D. S., Martin, J. E., Singer, G. G., et al. (2000). Economic cost of expanded criteria donors in cadaveric renal transplantation: Analysis of medicare payments. *Transplantation*, 70(5), 755–760. doi:[10.1097/00007890-200009150-00007](https://doi.org/10.1097/00007890-200009150-00007).
44. Wikström, B., Fored, M., Eichleay, M. A., & Jacobson, S. H. (2007). The financing and organization of medical care for patients with end-stage renal disease in Sweden. *International Journal of Health Care Finance and Economics*, 7(4), 269–281. doi:[10.1007/s10754-007-9014-y](https://doi.org/10.1007/s10754-007-9014-y).
45. Williams, M. E. (2006). Internet organ solicitation, explained. *Advances in Chronic Kidney Disease*, 13(1), 70–75. doi:[10.1053/j.ackd.2005.10.003](https://doi.org/10.1053/j.ackd.2005.10.003).
46. Yang, R. C., Thiessen-Philbrook, H., Klarenbach, S., Vlaicu, S., & Garg, A. X. (2007). Insurability of living organ donors: A systematic review. *American Journal of Transplantation*, 7(6), 1542–1551. doi:[10.1111/j.1600-6143.2007.01793.x](https://doi.org/10.1111/j.1600-6143.2007.01793.x).