Sociedad Española de Nefrología

nefrología
Revista de la Sociedad Española de Nefrología
www.revistanefrologia.com

Editorial

Rewards to increase living kidney donation: The state of the art

Recompensas para aumentar la donación de riñón vivo: el estado del arte

Sara Querido[a,*], *André Weigert*[a,b], *Teresa Adragão*[a], *Domingos Machado*[a], *Diogo Pais*[c]

[a] *Department of Nephrology, Centro Hospitalar de Lisboa Ocidental – Hospital Santa Cruz, Carnaxide, Portugal*
[b] *Faculdade de Medicina da Universidade de Lisboa, Lisboa, Portugal*
[c] *Nova Medical School, Faculdade de Ciências Médicas – Universidade Nova de Lisboa, Lisbon, Portugal*

The incidence of end-stage renal disease (ESRD) is increasing worldwide. When compared to dialysis, renal transplantation (RT) leads to a survival advantage and to an improvement in quality of life in most ESRD patients.[1] Additionally, from a societal perspective, RT is the most cost-effective modality of renal replacement therapy (RRT)[2,3] for eligible patients. In the last decades, RT has prolonged and improved the lives of hundreds of thousands of patients worldwide. Nevertheless, although the prevalence of ESRD is increasing in most countries, transplantation rates have not kept pace. In 2016, there were nearly 2000 patients waiting for RT in Portugal and only 500 kidney transplants were performed, illustrating the clear discrepancy between the number of transplants and the number of patients awaiting for transplantation. Thus, the widening gap between the number of deceased donors and the need for RT has driven interest in incentivizing living kidney donation (LKD). Besides alleviating the gap between the supply and the demand of kidneys, living donor transplants are associated with improved outcomes[4,5] allowing for preemptive transplantation (i.e. transplantation before initiating dialysis), which is associated with a better survival rate.[6,7] Considering the growing public awareness of the organ shortage crisis and the known advantages of LKD, there has been an increase in LKD over the last decade.[8] Currently, in our country, LKD relies on donor's altruistic initiative, with no possibility of compensation or incentive other than reimbursement for expenses related to the donation. Considering the benefits of LKD, multiple strategies to increase living donation have been proposed, including the promotion of financial incentives for living donors.[9–12] In the last years, surveys have been performed worldwide in order to access the public opinion[13,14] and the Nephrologist's perceptions and attitudes about rewards and compensations for kidney donation.[15,16] A general consensus has not been reached, considering that public and professional opinions are influenced by social, demographic, ethnic, sociological and cultural bias.

Donor selection and ethical problems regarding financial incentives for living kidney donation

Donor selection criteria are well defined by the World Health Organization (WHO): 'Live donations are acceptable when the donor's informed and voluntary consent is obtained, when professional care of donors is ensured and follow-up is well organized, and when selection criteria for donors are scrupulously applied and monitored'.[17]

Conversely, financial incentives for LKD are prohibited by the Declaration of Istanbul and by law in most countries[18] despite the fact that the subject of payment has been extensively debated. Some authorities believe that any payment

* *Corresponding author.*
E-mail address: saraqueridoconde@gmail.com (S. Querido).
http://dx.doi.org/10.1016/j.nefroe.2018.08.002

could lead to commercialization and would undermine transplant efforts, while others inferred that providing incentives will lead to an increase in organ donation. So, the potential use of financial compensation to increase LKD rates remains controversial. Those who favor payment believe that paid LKD would decrease waitlist deaths ant that remuneration could be ethical with respect to the donor[19,20]; those who are against payment defend that potential donor would be subject of coercion, undue influence and body commodification.[21] A key question is whether organs donors think motivations to act altruistically will be jeopardized if financial rewards or payments will be offered as incentives to donate organs, and whether they have an economic right to be compensated for cost incurred by donation.

From the ethical point of view, four categories of ethical concern relating to financial rewards and compensation for organ donation are unveiled[22,23]: undue inducement, unjust inducement, crowding out of intrinsic motivation to donate and commodification of the body. The ethical basis of living donation is nonmaleficience to the donor and respect for donor autonomy. Nonmaleficience entails that the donor should be in excellent health; respect for autonomy requires an informed consent from the donors. The major concern related to "undue inducement" is that payment for living kidney donation will undermine informed consent by coercing individuals into accepting risks that they would otherwise not accept, compelling people to donate and undermining autonomy. Inducements are not inherently unethical but become so when their magnitude is so irresistible that they distort peoples' judgment, encouraging potential donors to engage in activities that contravene their interest.

The concern for "unjust inducement" refers to coercing poor and/or vulnerable to donate, fearing that financial compensation for donation would take advantage of impoverished individuals who are presumed to be more vulnerable to donate for compensation."Crowding out" critique relates to the fact that compensation might reduce organ donation, discouraging altruistic donors, who would become disinclined to donate when a financial compensation exists.[24–26]

Finally, the "commodification of the body" critique claims the degradation of personal dignity, considering that the human body has inestimable intrinsic value and allowing someone to sell a part of the body degrades that person's dignity.

Types of rewarded compensations for LKD

Rewarded compensation for LKD is often not well defined in literature. Terms like "rewarded gifting", "rewarded compensation", "merited recompense", "gratitudinal gifts" or "outright payment for kidneys" are obscure. Typically, rewarded compensation refers to financial inducements to donate, entailing profit of some kind.

One type of donor compensation is reimbursement of all expenses, such as travel expenses and follow-up care and/or lost wages. The WHO guiding principles permits reimbursement for 'reasonable and verifiable expenses incurred by the donor, including loss of income'.[17] The European Convention on Human Rights and Biomedicine also states that the prohibition of financial gain 'shall not prevent payments which do not constitute a financial gain or a comparable advantage'.[27] Despite the fact that such payments are legal, many donors are unaware of their benefits and do not require them.

Another type of compensation, which is controversial, is the provision of direct or indirect financial incentives beyond expenses. Indirect incentives may take the form of "in-kind rewards", such as health or life insurance, contribution to the donor retirement fund or income tax credit, so people who are desperate for cash would not be tempted to sell a kidney.

Incentives could also apply to all living donors or only a subset, such as donors who donate to a global waiting list program. Either hybrid systems, incorporating altruistic donation alongside a regulated reward compensation system, either direct payments to all living donors, could potentiate "crowding out" and dissuade genuine altruists. Despite these concerns, the World Medical Association and Council of Europe[28] distinguish between the commercialization of human tissue and organs and compensation for living donation. Additionally, the Nuffield Council on Bioethics[29] defines non-altruistically focused financial incentives to reward living donor and their families from altruistically focused recompense, which includes compensation for inconvenience, discomfort and time and reimbursement of direct expenses, such as medical expenses and lost earnings.

Does financial compensation for living kidney donation change willingness to donate?

Concerns that compensation for LKD would lead to undue inducement and other ethical dilemmas are plausible, nevertheless no evidence-based data from clinical trials of donor payment are available because such trials are not ethically acceptable. The majority of peer-review reports concerning this issue are based on opinion and direct interview to community members. Venkataramani et al.[30] studied the impact of tax deductions for donor-related expenses in certain USA sates and found no evidence that tax incentives disproportionately affected the willingness of lower-income groups to donate. Also, tax deductions, also failed in increasing LKD rates. Gordon et al.[31] studied the amount of financial compensation which would generate motivation to donate to family/friend or strangers. They conclude that respondents' willingness to donate would not change in 70% of participants and observed a little practical impact of financial compensation in LKD. The majority of the public surveyed perceived that financial compensation for living donors is acceptable, but fewer respondents considered financial compensation to themselves to donate acceptable. In other words, these results suggest that financial rewards would make a little difference in individuals' decision to donate and policies in support of financial compensation would have relatively little traction in increasing living donation rates. Nevertheless, is important to consider that responses to survey scenarios may not reflect how people would actually behave if faced with the possibility to be paid for LKD.

Strategies to increase kidney donation

Expense reimbursement is ethically acceptable and performed in some countries as it is not considered a financial benefit. However it does not seem to lead to a meaningful increase in kidney donation. Therefore, other potential strategies that may increase KT need to be examined, despite some possible incremental costs.

Numerous approaches could potentially lead to an increase in the pool of donors: the introduction of deceased donors' registries, national and local awareness campaigns educational efforts and paired exchange programs, among others. Furthermore, removal of restrictions regarding anonymous donation, could be a way to make alternative living donation programs possible. Such programs should be implemented in the frame of international standards to ensure quality and safety of donors and recipients.

Conclusion

Transplantation rates have not increased over the last decade and the deceased donor waiting list continues to grow. Currently, in Portugal, there are no incentives for living donors, although reimbursement of expenses incurred by donor is permitted. Apart from altruistic motives of family or close friends, it is important to think about the ethical contours of the social world in which organ transplants take place and all efforts should be done to assure the ethical basic principles of LKD.

There is currently little evidence to support arguments that financial compensation for LKD will change willingness to donate, so the above mentioned strategies to increase kidney donation should be considered.

Conflicts of interest

The authors declare no conflict of interests.

REFERENCES

1. Garcia GG, Harden P, Chapman J. The global role of kidney transplantation. Lancet. 2012;379:e36–8.
2. Perovic S, Jankovic S. Renal transplantation vs hemodialysis: cost-effectiveness analysis. Vojnosanit Pregl. 2009;66:639–44.
3. Wong G, Howard K, Chapman JR, Chadban S, Cross N, Tong A, et al. Comparative d economic benefits of deceased donor kidney transplantation and dialysis in people with varying ages and co-morbidities. PLoS One. 2012;7:e29591.
4. Lee S, Kim J, Shin M, Kim E, Moon J, Jung G, et al. Comparison of outcomes of living and deceased donor kidney grafts surviving longer than 5 years in Korea. Transplant Proc. 2010;42:775–7.
5. Suzuki A, Kenmochi T, Maruyama M, Akutsu N, Iwashita C, Otsuki K, et al. Changes in quality of life in deceased versus living-donor kidney transplantations. Transplant Proc. 2012;44:287–9.
6. Meier-Kriesche HU, Port FK, Ojo AO, Rudich SM, Hanson JA, Cibrik DM, et al. Effect of waiting time on renal transplant outcome. Kidney Int. 2000;58:1311–7.
7. Kasiske BL, Snyder JJ, Matas AJ, Ellison MD, Gill JS, Kausz AT. Preemptive kidney transplantation: the advantage and the advantaged. J Am Soc Nephrol. 2002;13:1358–64.
8. Klein AS, Messersmith EE, Ratner LE, et al. Organ donation and utilization in the United States, 1999–2008. Am J Transplant. 2010;10:973–86.
9. Gaston RS, Danovitch GM, Epstein RA, Kahn JP, Matas AJ, Schnitzler MA. Limiting financial disincentives in live organ donation: a rational solution to the kidney shortage. Am J Transplant. 2006;6:2548–55.
10. Klarenbach S, Garg AX, Vlaicu S. Living organ donors face financial barriers: a national reimbursement policy is needed. CMAJ. 2006;174:797–8.
11. Delmonico FL, Arnold R, Scheper-Hughes N, Siminoff LA, Kahn J, Youngner SJ. Ethical incentives –not payment – for organ donation. N Engl J Med. 2002;346:2002–5.
12. Søbirk Petersen T, Lippert-Rasmussen K. Ethics, organ donation and tax: a proposal. J Med Ethics. 2012;38:451–7.
13. Peters TG, Fisher JS, Gish RG, Howard RJ. Views of US voters on compensating living kidney donors. JAMA Surg. 2016;151:710–6.
14. Tong A, Ralph AF, Chapman JR, Wong G, Gill JS, Josephson MA, et al. Focus group study of public opinion about paying living kidney donors in Australia. Clin J Am Soc Nephrol. 2015 Jul 7;10:1217–26.
15. Ghahramani N, Karparvar Z, Ghahramani M, Shadrou S. International survey of nephrologists' perceptions and attitudes about rewards and compensations for kidney donation. Nephrol Dial Transplant. 2013 Jun;28:1610–21.
16. Lennerling A, Lovén C, Dor FJ, Ambagtsheer F, Duerinckx N, Frunza M, et al. Living organ donation practices in Europe – results from an online survey. Transpl Int. 2013 Feb;26:145–53.
17. WHO guiding principles on human cell, tissue and organ transplantation. Transplantation. 2010;90:229, http://dx.doi.org/10.1097/TP.0b013e3181ec29f0.
18. Steering Committee of the Istanbul Summit. Organ trafficking and transplant tourism and commercialism: the Declaration of Istanbul. Lancet. 2008;372:5–6.
19. Fisher JS, Butt Z, Friedewald J, Fry-Revere S, Hanneman J, Henderson M, et al. Between Scylla and Charybdis: charting an ethical course for research into financial incentives for living kidney donation. Am J Transplant. 2015;15:1180–6.
20. Matas AJ, Satel S, Munn S, Richards JR, et al. Incentives for organ donation: proposed standards for an internationally acceptable system. Am J Transplant. 2012;12:306–12.
21. Rippon S. Imposing options on people in poverty: the harm of a live donor organ market. J Med Ethics. 2014;40:145–50.
22. Halpern SD, Raz A, Kohn R, Rey M, Asch DA, Reese P. Regulated payments for living kidney donation: an empirical assessment of the ethical concerns. Ann Intern Med. 2010;152:358–65.
23. Israni AK, Halpern SD, Zink S, Sidhwani SA, Caplan A. Incentive models to increase living kidney donation: encouraging without coercing. Am J Transplant. 2005;5:15–20.
24. Arnold R, Bartlett S, Bernat J, Colonna J, Dafoe D, Dubler N, et al. Financial incentives for cadaver organ donation: an ethical reappraisal. Transplantation. 2002;73:1361–7.
25. Rothman S, Rothman D. The hidden cost of organ sale. Am J Transplant. 2006;6:1524–8.
26. Mayrhofer-Reinhartshuber D, Fitzgerald A, Benetka G, Fitzgerald R. Effects of financial incentives on the intention to consent to organ donation: a questionnaire survey. Transplant Proc. 2006;38:2756–60.
27. Additional protocol to the convention on human rights and biomedicine concerning transplantation of organs and tissues of human origin. Strasbourg: Council of Europe; 2009. Available at: http://conventions.coe.int/Treaty/en/Treaties/Html/186.htm (24.01.02).

28. Clarke KS, Klarenback S, Vlaicu S, Yang RC, Garg AX. The direct and indirect economics costs incurred by living kidney donors – a systematic review. Nephrol Dial Transplant. 2006;21:1952–60.
29. Nuffield Council on Bioethics. Human bodies donation for medicine and research; 2011. Available at: http://www.nuffieldbioethics.org/sites/default/files/Donation_full_report.pdf
30. Venkataramani AS, Martin EG, Vijayan A, Wellen JR. The impact of tax policies on living organ donations in the United States. Am J Transplant. 2012;12:2133–40.
31. Gordon EJ, Patel CH, Sohn MW, Hippen B, Sherman LA. Does financial compensation for living kidney donation change willingness to donate? Am J Transplant. 2015;15:265–73.