

Financial Incentives for Living Kidney Donation: Ethics and Evidence

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The widening gap between the number of donated kidneys and the need for kidney transplants has driven interest in incentivizing living kidney donation. Proposals to increase living kidney donation rates using financial incentives have generated vigorous ethical critiques, which can be placed into four categories: undue inducement, unjust inducement, crowding out of intrinsic motivation to donate, and commodification of the body. In the United States and many other countries, payment for organ donation is also illegal (1). In this issue of *CJASN*, Barnieh *et al.* present a cost-effectiveness analysis suggesting that if payment of \$10,000 to each donor led to a 5% increase in live kidney donation, this incentive could be cost-saving to a payor (2). While this analysis does not address ethical critiques of incentives for living donation, the demonstration of financial feasibility may be necessary to interest policymakers in such a proposal. The study also offers an opportunity to consider operational challenges and to define key outcomes if financial incentives were evaluated in an empirical trial.

The ethical basis of living kidney donation is non-maleficence to the donor and respect for donor autonomy. Non-maleficence entails that the donor be in excellent health because healthy donors face real but reasonable risks (3,4). Respect for autonomy requires that donors provide informed consent. The “undue inducement” critique is that payment for living kidney donation will undermine informed consent by coercing individuals into accepting risks that they would otherwise deem unacceptable. In short, everyone has his or her price. For example, a potential donor with a relative medical contraindication, such as abnormal glucose tolerance or obesity, might ignore the risk of future ESRD because that person will be able to focus only on the immediate financial reward. The concern for “unjust inducement” is that people of lower socioeconomic status will be particularly vulnerable to coercion of this kind. In short, the poor will have no choice but to sell a kidney. The “crowding out” critique is that thousands of people donate kidneys now without payment, and (at least part of) the motivation is intrinsic generosity. If payments are introduced, everyone will want money to donate. In short, dollars will destroy altruism. The commodification critique holds that the human body has inestimable intrinsic value and allowing someone to sell the body, or part of it, degrades that person’s dignity. In short, the body is sacred and

money is dirty. Notably, the first three critiques could be verified through a trial of financial incentives for living kidney donation, but the commodification critique is not empirically testable.

Any debate about incentives for organ donation should begin with specifics. These incentives could be structured in a variety of ways, each with distinct ethical implications (and differing potential for compromise between proponents and critics). Incentives could take the form of direct payments, indirect payment (*e.g.*, tax benefits), reimbursement for all expenses and/or lost wages, and “in-kind rewards,” such as health or life insurance. Incentives could also apply to all living donors or only a subset, such as non-directed donors (*i.e.*, those who donate to a stranger on the waiting list). In this study by Barnieh *et al.*, the only system examined would provide direct payments to all living donors, whether that donor was giving a kidney to a loved one or to a stranger. Such an approach reflects the egalitarian notion that equal contributions merit equal compensation, regardless of underlying motivation (5). Paying all living donors would presumably run less risk of “crowding out” altruistic donation than a policy that provided payments only to non-directed donors. From an operational perspective, this approach also requires that the government (*e.g.*, Medicare) accept the cost of paying existing donors (approximately 5500 per year in the United States with a cost exceeding \$50 million) before reaping any benefit from the appearance of additional donors motivated by this payment.

The suffering of wait-listed patients with ESRD creates an ethical responsibility for transplant professionals to evaluate new methods of expanding organ donation, including payment for living donation. Concerns that payment for living kidney donation would lead to unjust inducement, undue inducement, and crowding out of altruistic donation are plausible, but empirical data on whether these fears would become a reality are quite limited. Venkataramani *et al.* studied the impact of tax deductions for donor-related expenses in certain states and found no evidence that tax incentives disproportionately affected the willingness of lower-income groups to donate. Unfortunately, this study also suggested that implementation of these tax deductions failed to augment rates of living kidney donation (6). Halpern *et al.* presented scenarios about live kidney

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donation to members of the general public, varying the risks of ESRD after donation and varying payment size from \$0 to \$100,000 (7). Across the income spectrum, the offer of payment increased baseline willingness of participants to donate a kidney. In conjoint analysis, payment neither reduced participants' sensitivity to risks of donation nor disproportionately motivated lower-income participants to donate. Of course, responses to survey scenarios may not reflect how people would actually behave if presented with the opportunity to be paid for organ donation. Nonetheless, available empirical data do not support the main critiques of paying living donors.

The decision analysis by Barnieh *et al.* found that direct payment of \$10,000 to all living donors would provide an incremental cost savings of \$340 and a gain of 0.11 quality-adjusted life-year over a patient's lifetime compared with the current system, in which kidney transplant candidates wait years for a deceased-donor organ (or die waiting). These results reflect the assumption that payment would elicit a 5% increase in the living donation rate, but the true impact of a direct payment strategy is unknown. This question is particularly pressing given Barnieh and colleagues' finding that fixed payment of \$10,000 is not cost-saving, with more modest increases in live kidney donation of 1%–2% over baseline. The authors note that the cost per quality-adjusted life-year across a range of donation rates is reasonable by conventional economic standards, but to policymakers and the public, the difference between cost savings and a "worthwhile" investment may determine willingness to endure the policy's ethical controversies.

Given the promise of a cost-effective strategy provided by Barnieh's group—and a lack of empirical evidence that ethical concerns about incentivizing live donors would manifest—we propose a research agenda and necessary elements for a limited trial of incentives. First, using modeling, researchers should examine the comparative effectiveness of different incentive strategies, such as reimbursement for lost wages and expenses or provision of insurance. Expense reimbursement is a promising alternative to fixed payment. Estimates of donor financial burden range from \$907 to \$3089, and compensation would help ensure that donors do not suffer financially from donation (8). Because potential donors would not stand to benefit financially, expense reimbursement could ease concerns about undue and unjust inducement, but it might also fail to generate a meaningful increase in the supply of organs (5). Moreover, in contrast with fixed payment for donation, expense reimbursement is legal in the United States (1).

Second, a limited, real-world trial of regulated incentives should be conducted. Ideally, the effect of a direct payment intervention could be contrasted with expense reimbursement and usual care. A geographically limited trial should assess (1) the effect of different payment models on the number of donors (to assess the program's benefits), (2) the socioeconomic and general health status of potential and actual donors (to assess unjust inducement), and (3) donor comprehension of risks and evidence of donor coercion (to assess undue inducement). If incentives are provided for only a subset of donors, evidence of crowding out should also be assessed. The trial should measure psychological, financial, and physical outcomes after donation. Existing protections for potential live donors will be necessary, such as use of independent donor advocates, separation of

donor and recipient evaluation teams, and ability to opt-out from donation with dignity at any time (5). Additional protections may also be needed, such as a "cooling off" period between evaluation and donation to allow transplant teams multiple opportunities to assess donor motives and comprehension.

The barriers to conducting such a trial are significant. In the United States, these barriers include the National Organ Transplant Act (1). Removing the legal prohibition on payment for donation would require persistent advocacy by diverse stakeholders. So far, surveys suggest a lack of consensus for organ markets among the general public, and a minority of transplant surgeons support paying for living donation (9,10).

Current trends regarding the use of financial incentives in medicine suggest that the time is ripe for new consideration of payments for living kidney donation. The last decade has witnessed rising interest in behavioral economics and well-designed clinical trials using financial incentives to change diverse health behaviors, including smoking and weight loss (11–13). In the meantime, this work by Barnieh *et al.* may allow advocates to make a financial case for incentives in the realm of living kidney donation. Reassurance about the ethical concerns, however, can come only through empirical evidence from actual experience.

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Disclosures

None.

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