Nephrol Dial Transplant, 2024, **0**, 1–3
https://doi.org/10.1093/ndt/gfae039
Advance access publication date: 14 February 2024

Facts and myths about altruistic organ donation

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Transplantation is the optimal kidney replacement therapy; however, the shortage of donor organs is a major obstacle for its widespread use. Kidney transplantations from live donors are considered as an even more superior alternative. Live donors may be genetically related, or alternatively, may have emotional, social or legal relationships with the potential recipient. Rarely, however, none of these connections exists, and the donors are unrelated strangers, donating their kidney anonymously for altruistic reasons.

ALTRUISTIC DONATION: TERMINOLOGY AND BASIC CONCEPTS

Broadly speaking, many donors in live- and deceased-donor transplantations (and also donors' relatives) are 'altruistic', because, literally, the word 'altruistic' means 'showing a wish to help or bring advantages to others, even if it results in disadvantage for self' (Cambridge Dictionary). However, in this paper, the term 'altruistic donation' will denote the act of a live donor making a kidney available to a recipient that is unknown to the donor.

In practice, several other terms are used for this type of organ donation, such as: non-directed donation (i.e. organ donated without addressing the recipient), non-specified (or unspecified) donation (i.e. organ donated to an unknown recipient), anonymous donation (i.e. organ donated to any patient in the waitlist), donation by Good Samaritan donors (i.e. organ donated by a compassionate and caring, but undisclosed donor) or donation by altruistic strangers (i.e. organ donated by a donor who remains unknown to the recipient) [1]. Some minor nuances may exist, but in general (and also in this review) all these terms are used interchangeably, all express a variant of the same idea, i.e. a donation by a generous person to a non-specified recipient who remains unaware of the exact origin.

Occasionally, some altruistic donors are allowed to have a brief contact with the intended recipient (by means of phone, e-mail or in person) [2]. However, this procedure is discouraged in most transplantation programs because it may trigger several drawbacks as discussed below.

Anonymous donation to an unknown recipient is legally accepted and subsidized in several countries, such as Australia, Canada, the Netherlands, the UK, the USA, Italy, Sweden, Switzerland and Spain [1]. However, even in these countries, only a minority of living kidney donors are altruistic (only 10% of all living donations in the UK and 3% in the USA) [1].

By and large, the medical community has a positive attitude towards altruistic donation [3], because transplantations from non-directed donors are associated with very low medical risks and excellent long-term outcomes, as shown in a recent retrospective analysis on 2174 cases [4]. It may be possible to further improve prognosis by following strategies that minimize age and body mass index mismatches [4].

On the other hand, it is unclear why this approach is not utilized more widely. It is likely that ethical and/or legal objections, erroneous or deficient information, lengthy, labour-intensive assessments, and scarcity of altruistic donors all play a role. Several measures (e.g. more efficient advocacy, more efficient information targeted to both the medical community and the public, definition and optimization of the rules for donor-related assessment—in particular regarding age limits for young volunteers—and fair reimbursement of the donor expenses) may be helpful in promoting altruistic donations.

CHARACTERISTICS OF ALTRUISTIC DONORS—WHO ARE THEY?

Altruistic donors have been described as having an explicit desire to help others, a strong spiritual belief system and feelings of empathy [1, 2, 5]. They are more frequently female, Caucasian, highly educated, of high socioeconomic status, older/retired, with religious beliefs, and involved in other altruistic endeavours such as blood donation or financial charity [1, 5]. Various characteristics of altruistic living kidney donors reveal that they are unselfish, frequently make attempts to benefit others even if they place themselves at some risks and show similar behaviour to both close or distant beneficiaries.

Although some authors have raised concerns about long-term medical consequences and a risk of later regret of altruistic donation, this is seldom the case. Overall, physical and psychosocial outcomes, stress, self-esteem or well-being of altruistic

Received: January 25, 2024; Editorial decision: February 1, 2024

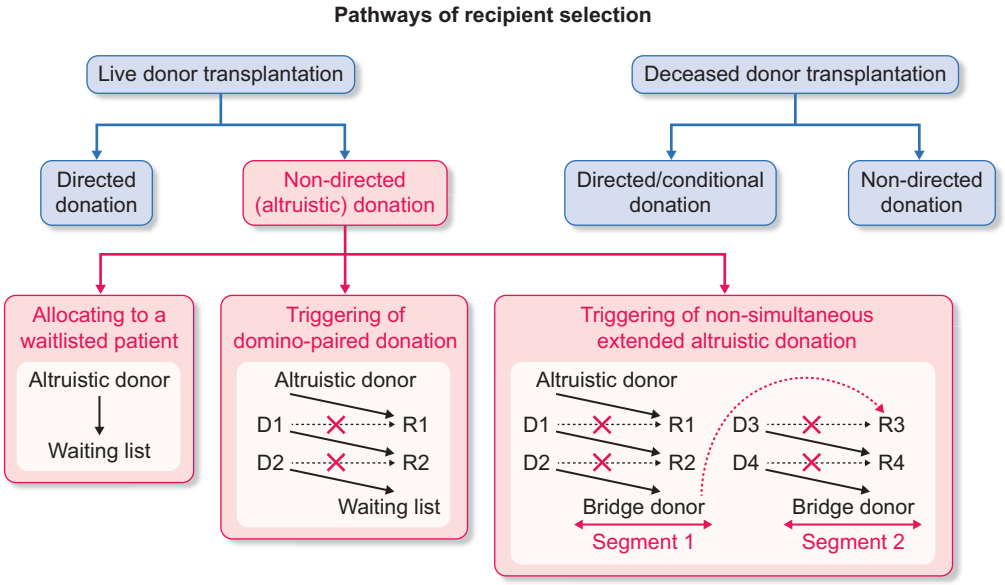

Figure 1: In standard live donor transplantations, the recipient is usually identified by the donor (directed donation). However, in altruistic living donation, the donated organ may be allocated to a wait-listed patient, or towards transplantation chains that occur simultaneously (domino-paired donation) or consecutively over a limited period (non-simultaneous extended altruistic donation chains) [7]. In deceased donor transplantation, the vast majority of the donations are non-directed, but occasionally they may be 'directed' or 'conditional'. These two terms are often used interchangeably, but in fact there are subtle differences: in directed donation, the donors or their relatives indicate the individual(s) to whom the organ(s) should be assigned, whereas in conditional donation organs are not allowed to be assigned to certain specific categories (e.g. along ethnic lines or defined by lifestyle factors like alcohol consumption). The prevailing consensus is that donations, whether they are from live or deceased donors, should never be accepted if exclusion of a group of individuals based on demographic or ethnical features is requested (figure adapted from reference [7]).

kidney donors are comparable to those of emotionally or biologically related living donors [1, 2]. Meticulous pre-donation evaluation, especially extensive psychologic and psychiatric assessment, may play a role in these favourable outcomes.

PRACTICAL IMPLEMENTATION

The procedure is initiated when an altruistic donor candidate contacts a transplantation centre (often by telephone, mail or social media), enquiring about the possibilities of donation. However, due to the low benefit-to-risk ratio for the altruistic donor, many transplant centres are reluctant to readily accept these offers, in particular in case of young volunteers [1, 3, 5]. To reach a well-balanced judgement, the decision to accept or reject a potential donor at the first contact and initial assessment should preferably be the responsibility of an expert committee rather than that of a single member of the transplantation team. This committee should extensively evaluate the responses of an initial screening interview [5, 6], allow some 'cooling-off' time for the donor to digest all information provided and to discuss with friends and family. If accepted, altruistic donor candidates should be evaluated for their suitability the same way as other organ donors.

The pre-donation assessment of altruistic donors is similar to that of all other living donors [5, 6]. Importantly, altruistic donors should be extensively informed about the potential risks of organ donation and this should be complemented by an in-depth psychological assessment, preferentially by independent, experienced psychiatrists/psychologists [2]. The principal aim is to check motivation for donation and to exclude psychiatric/psychologic issues that may create problems post-donation [7]. Donor nephrectomy and organ allocation as well as post-donation follow-up should conform to the standard procedures in place [6].

For defining potential recipients, two different approaches can be followed: (i) assigning organs to the most compatible patient on the deceased donor waiting list, which ensures justice, equity and non-discrimination; (ii) alternatively, these kidneys can be used to initiate transplant chains between incompatible donor–recipient pairs to enable compatible exchanges (Fig. 1). In general, these transplantations may take place simultaneously (domino-paired donation) or consecutively over a limited period, with the remaining 'bridge' donor initiating a new chain of paired exchange transplantations at a later time-point (non-simultaneous extended altruistic donation chains) (Fig. 1) [7].

Some altruistic donors may express a wish that their organ is assigned to particular types of recipients (e.g. women, medical students). This 'semi-non-directed' altruistic donation is allowed only in a few programs, in view of the possibility of coercion or commercialization [2, 5, 6]. Occasionally, potential altruistic donors may ask for recipient exclusion based on ethnicity, sex, creed, a specific lifestyle (such as alcohol consumption) or any other characteristic. However, such offers should be rejected if the potential donor, after information that this request is unacceptable, maintains this wish for exclusion. Losing a donor should be preferred over sacrificing the ethics of equal access for all those on the wait list [5].

Respecting anonymity between the donor–recipient pair is controversial [1]; the strategy may differ significantly between countries and also among centres within the same country [6]. However, avoiding identification may protect the recipient from exploitation by the donor and equally avoid disproportionate manifestations of gratitude towards the donor, allowing them to maintain their privacy and the feeling of altruism [8].

There are no clear rules about financial compensation for altruistic donors. Financial neutrality remains a key principle also for altruistic donation [9]. The unavoidable expenses (e.g. reimbursement of hospital charges and payment for lost

incomes or travel expenses) should be compensated by the system [1, 6], and out-of-pocket expenses may be covered by the recipient or the system [2]. Extensive financial compensation should be avoided because of the risks of commercializing organ donation [9]. However, there remain, in many countries, additional unresolved issues such as provision of lifelong insurance, long-term medical care and official acknowledgement.

PROS AND CONS

Altruistic donation has several advantages, such as: (i) respecting the donor's wish and enhancing their self-esteem, life-satisfaction and sense of well-being [2, 5, 7]; (ii) allowing more people with kidney failure to be transplanted [1]; and (iii) facilitating kidney transplantations between biologically (blood group or tissue type) incompatible pairs by initiating paired exchange series [7]. Additionally, (iv) altruistic donation triggers fewer ethical concerns than transplantations from other types of living donation, because even in living-related transplantation practice, the donor may be coerced, which is near impossible in altruistic donation [5].

On the other hand, the procedure is associated with some hazards, such as: (i) causing risks inherent to any living organ donation [1]; (ii) generating a minimal risk for the donor to be identified by the recipient [2]; (iii) opening doors for commercialism via intermediaries between donor and recipient, especially if the potential donor and recipient would be able to identify each other [1, 5, 10]; (iv) creating subsequent difficulties in obtaining health or life insurance due to the exceptional type of donation, which is unfamiliar to many [2]; and (v) causing post-donation regrets about the decision [1, 2].

CONCLUSIONS

Overall, in the opinion of the authors, the benefits of altruistic kidney donation exceed the disadvantages; hence, initiatives to increase altruistic donorship are urgently needed. Several measures may be helpful to promote these donations, such as: timely provision of clear information to every potential donor; defining criteria for acceptance of such offers; defining and optimizing the rules for donor evaluation, allocation and post-donation follow-up; and achieving a transparent consensus on a fair reimbursement of the donor expenses [1]. However, importantly, altruistic donations should never be accepted if the donor asks for exclusion of specific groups of recipients.

CONFLICT OF INTEREST STATEMENT

None declared.

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Received: January 25, 2024; Editorial decision: February 1, 2024