

with the requisite training and expertise to evaluate donors fully, to ensure that donations are voluntary, and to perform living-donor surgery. In addition, better data about the outcomes of living donors should be forthcoming. The OPTN is also working toward requiring that transplantation centers report within 72 hours the death of a living donor or the donor's need for organ transplantation. Finally, OPTN/UNOS will develop a nationwide mechanism for allocating organs from living donors who have not directed their donation to specific persons.<sup>5</sup> The principles will be similar to those for allocating organs from cadaveric donors. Even-

tually, there might be a registry for altruistic kidney and liver donors, such as the National Marrow Donor Program, which lists volunteer marrow donors.

The controversy over the public solicitation of organs has forced the transplantation community to address a difficult issue and to reexamine its approach to living donors. As long as there is a profound organ shortage, the challenge of trying to help patients in need of transplants while upholding the integrity of the overall allocation system will not go away.

Dr. Steinbrook is a national correspondent for the *Journal*.

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2. Delmonico FL. Exchanging kidneys — advances in living-donor transplantation. *N Engl J Med* 2004;350:1812-4.

3. Letter from Dr. James F. Burdick, director, Division of Transplantation, Healthcare Systems Bureau, Health Resources and Services Administration, Department of Health and Human Services, to Walter K. Graham, Executive Director, United Network for Organ Sharing, October 29, 2004.

4. OPTN/UNOS board opposes solicitation for deceased organ donation. Press release of the United Network for Organ Sharing, November 19, 2004. (Accessed July 14, 2005, at <http://www.unos.org/news/newsDetail.asp?id=374>.)

5. OPTN/UNOS board addresses information needs of potential living donors. Press release of the United Network for Organ Sharing, June 24, 2005. (Accessed July 14, 2005, at <http://www.unos.org/news/newsDetail.asp?id=456>.)

## The Ethics of Organ Donation by Living Donors

Robert D. Truog, M.D.

Related articles, pages 441 and 447

Most organs for transplantation come from cadavers, but as these have failed to meet the growing need for organs, attention has turned to organs from living donors. Organ donation by living donors presents a unique ethical dilemma, in that physicians must risk the life of a healthy person to save or improve the life of a patient. Transplantation surgeons have therefore been cautious in tapping this source. As surgical techniques and outcomes have improved, however, this practice has slowly expanded. Today, according to the United Network for Organ Sharing (UNOS), almost half of all kidney donors in the United States are living. In

2004, living organ donors also provided a lobe of the liver in approximately 320 cases and a lobe of a lung in approximately 15 cases.

Three categories of donation by living persons can be distinguished: directed donation to a loved one or friend; nondirected donation, in which the donor gives an organ to the general pool to be transplanted into the recipient at the top of the waiting list; and directed donation to a stranger, whereby donors choose to give to a specific person with whom they have no prior emotional connection.

Each type of donation prompts distinct ethical concerns. With di-

rected donation to loved ones or friends, worries arise about the intense pressure that can be put on people to donate, leading those who are reluctant to do so to feel coerced. In these cases, transplantation programs are typically willing to identify a plausible medical excuse, so that the person can bow out gracefully.<sup>1</sup> Equally important, however, are situations in which people feel compelled to donate regardless of the consequences to themselves. In one instance, both parents of a child who was dying of respiratory failure insisted on donating lobes of their lungs in a desperate but unsuccessful attempt to save her life.<sup>2</sup> Such a sense of compulsion

is not unusual. In cases like these, simply obtaining the informed consent of the relative is insufficient — physicians are obligated to prevent people from making potentially life-threatening sacrifices unless the chance of success is proportionately large.

Nondirected donation raises different ethical concerns. The radical altruism that motivates a person to make a potentially life-threatening sacrifice for a stranger calls for careful scrutiny. One recent case involved a man who seemed pathologically obsessed with giving away everything, from his money to his organs, saying that doing so was “as much a necessity as food, water, and air.”<sup>3</sup> After donating one kidney to a stranger, he wondered how he might give away all his other organs in a dramatic suicide. Other psychologically suspect motivations need to be ruled out as well. Is the person trying to compensate for depression or low self-esteem, seeking media attention, or harboring hopes of becoming involved in the life of the recipient? Transplantation teams have an obligation to assess potential donors in all these dimensions and prohibit donations that arouse serious concern.<sup>1</sup>

Directed donation to a stranger raises similar ethical questions with a few additional wrinkles. This type of donation usually occurs when a patient advertises for an organ publicly, on television or billboards or over the Internet. Such advertising is not illegal, but it has been strongly discouraged by the transplantation community. Two central objections are that the practice is unfair and that it threatens the view that an organ

is a “gift of life,” not a commodity to be bought and sold.

Some argue that just as we have a right to donate to the political parties and charities of our choice, so should we be able to choose to whom to give our organs. In practice, however, this means that those who have the most compelling stories and the means to advertise their plight tend to be the ones who get the organs — rather than those most in need. This strikes some ethicists as unfair. Unlike monetary gifts, they argue, organ transplantation requires the involvement of social structures and institutions, such as transplantation teams and hospitals. Hence, the argument goes, these donations are legitimately subject to societal requirements of fairness, and transplantation centers should refuse to permit the allocation of organs on the basis of anything but morally relevant criteria.<sup>4</sup>

The most ethically problematic cases are those in which the recipient is chosen on the basis of race, religion, or ethnic group. In one case, for example, the family of a brain-dead Florida man agreed to donate his organs — but insisted that because of the man’s racist beliefs, the recipients must be white. Although the organs were allocated accordingly, Florida subsequently passed a law prohibiting patients or families from placing such restrictions on donation.<sup>5</sup>

Even when the motives for choosing a recipient may be unethical, however, there might be reasons for allowing the donation to proceed. Consider a case that was discussed at a recent public forum hosted by Harvard Medi-

cal School’s Division of Medical Ethics: a Jewish man in New York learned of a Jewish child in Los Angeles who needed a kidney transplant. The man wanted to help someone of his own faith and decided he was willing to donate a kidney to help this particular child. Despite his discriminatory preference, one might view the donation as permissible, since at least some patients would benefit (the child would receive a kidney, and those below her on the waiting list would move up one notch) and no one would be harmed (those above the girl on the waiting list would not receive the kidney under any circumstances, because the man would not give it to them). Whether directed donation to strangers violates standards of fairness is thus controversial. But if it is permitted, it will be very difficult to prohibit discriminatory preferences, since donors can simply specify that the organ must go to a particular person, without saying why.

The other substantial cause for concern about this type of donation is its potential for making possible the buying and selling of organs. These practices are strictly prohibited by law, yet they seem to be an inherent risk in directed donations to strangers. Wealthy patients in need and healthy donors looking for a quick fix to their financial problems will always be able to find ways around even the most earnest attempts to prevent money from changing hands.

Despite these concerns, efforts to direct organ donations to strangers are not new, dating back at least to the celebrated 1982 case of Jamie Fiske, whose

father successfully mounted a nationwide appeal for someone to donate a liver to her. Today, many such solicitations are transmitted over the Internet, where, when the practice was relatively limited, organ solicitation was managed quietly, on a case-by-case basis, by individual transplantation centers. All this changed, however, with the emergence in 2004 of MatchingDonors.com (as discussed by Steinbrook in this issue of the *Journal*, pages 441–444). This Web site currently claims to have more than 2100 registered potential donors and to have brokered 12 transplantations, with about 20 more recipient–donor pairs matched and awaiting surgery.

Although the business conducted on this organization's Web site does not raise any fundamental ethical issues not already posed by other methods of solicitation, it does introduce a new degree of visibility that increases the magnitude of the issue. Will competing commercial Web sites begin to emerge? How will these sites be held accountable? Dr. Jeremiah Lowney, the medical director of MatchingDonors.com, recently argued that just as a dating service could not be held responsible for a bad date, his Web site has no responsibility for the outcomes of its matches. Furthermore, the Web site has no mechanism for ensuring the quality of the information it provides about transplantation and donation by living persons or for check-

ing the accuracy of information submitted by potential donors and recipients.

Given the life-or-death consequences of the procedure, organ donation should not be governed by the ethics of caveat emptor. Nevertheless, MatchingDonors.com has clearly identified a need, and if this need is not met by a service that can address the ethical challenges, the vacuum will be filled by other enterprises. Entrepreneurs commonly open up useful new markets and services that must eventually become subject to rigorous standards and regulations.

The solicitation of organs over the Internet is probably here to stay, but it will require higher standards of responsibility and accountability than are currently in place. UNOS has more than 20 years of experience in managing the cadaveric-donor pool and is in a good position to extend its jurisdiction to include donation by living donors. The organization recently considered the topic of solicitation and decided not to pursue building a Web site similar to that of MatchingDonors.com but, instead, to provide educational information for anyone who is willing to be a living donor of a kidney and to develop a nationwide mechanism for allocating organs for nondirected donation by living donors.

This effort, however, does not go far enough. The proposal does not address directed donation and leaves many critical aspects of

donation by living donors to the transplantation centers. Organ transplantation is big business, and each center is highly motivated to expand its share of the pie. They therefore have intolerable conflicts of interest when it comes to regulating themselves. Instead, UNOS should be charged with standardizing the process for evaluating potential donors, ensuring that independent advocates are assigned to help donors make an informed choice, developing mechanisms to deal with potential injury or death to the donor, setting standards for both directed and nondirected donation, and prohibiting transplantation when the chance of success is insufficient to justify the risks. Comprehensive oversight is necessary if the ethical pitfalls are to be adequately addressed.

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**An interview with Dr. Truog can be heard at [www.nejm.org](http://www.nejm.org).**

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