

Op-Ed Contributors

How Not to Assign Kidneys

By LAINIE FRIEDMAN ROSS and BENJAMIN E. HIPPEN

Published: March 5, 2011

MORE than 87,000 Americans suffering from end-stage renal disease are on dialysis and awaiting a kidney transplant. Fewer than 17,000 of them are likely to have new kidneys by the end of the year.

The United Network for Organ Sharing, the nonprofit group that manages the nation's organ transplant system, [wants to change the system for allocating kidneys](#) from deceased donors. While organs from living donors are usually directed to a particular person, kidneys from the deceased are distributed under a formula devised by the network. The proposal is supposed to provide deceased-donor kidneys of higher quality to healthier, younger patients instead of to elderly ones who presumably have fewer years to live.

It sounds simple enough. But the strategy could result in fewer kidneys going from living donors to young candidates, and could lead to more deaths of older or sicker candidates on the waiting list. Moreover, it would do nothing to address the fundamental problem: the persistent shortage of kidneys from donors, both living and deceased.

The proposal would set up a two-pronged strategy that is intended to increase the number of life-years gained for every donor kidney. Under the proposal, the top 20 percent of kidneys from deceased donors who had been young and healthy would be assigned to the top 20 percent of young healthy candidates. In other words, the best deceased-donor kidneys would be given to patients likeliest to have long lives ahead of them.

The other 80 percent of deceased-donor kidneys would be allocated first to local candidates within a 15-year age range of the donor, and if no potential candidate were identified, then to the broader pool of candidates. (For example, candidates aged 25 to 55 would get priority for a kidney from a 40-year-old donor who had just died.)

But while the goal is understandable, the proposal is flawed. For one thing, our ability to forecast the success of any particular transplant is limited. The models used to predict whether both the kidney and the recipient survive in any individual operation are correct only 60 percent to 70 percent of the time; sometimes kidneys don't last as long as expected. So basing a vast shift in policy on a model that is just two-thirds accurate should give us pause.

In addition, giving healthy young patients first dibs on kidneys from young deceased donors might reduce donation rates from living donors to the young candidates, which is at cross-purposes with the goal of extending years of life after transplant. In 2005, the network started giving pediatric transplant candidates priority for kidneys from deceased donors younger than 35. While the pediatric patients received more organs from deceased donors, they got fewer organs from living donors. The likely explanation is that the donors, including many parents, held off, figuring that they could donate later, when the deceased-donor kidney eventually failed. (Those kidneys can last up to 20 years.)

The new proposal would effectively expand the 2005 rule to all healthier, younger candidates, potentially reducing living-donor transplantation to the very group that stands to benefit the most from it. This would only increase their need for another transplant later, since kidneys from deceased donors do not last as long as kidneys from living ones.

Giving more organs to young recipients would also come at the expense of "older" recipients, which in this context can mean 50 to 64. (Only a tiny fraction of all kidneys go to recipients older than 70.) Since older candidates on the

waiting list are less likely to live long enough to receive a kidney, making them less eligible for transplants will probably result in more deaths on the list, and more pressure on available living donors to donate to older candidates.

What should be done instead?

First, allocate kidneys on a broader basis. Under both the current and proposed systems, kidneys are allocated locally. But while a New Yorker with end-stage renal disease will typically wait at least six years for a transplant, her counterpart in Minnesota might wait just two to three. Since a kidney from a young deceased donor would probably be allocated to a young local candidate, young candidates in areas with long waiting lists would still be at a substantial disadvantage under the new proposal. Turf disputes among regional and state networks are the main reason geographic disparities haven't been addressed.

Second, the network should continue to support first-person consent legislation under which people who have properly declared their willingness to donate their organs in case of an unexpected death cannot have their wishes overruled by their bereaved families.

But for now, the only sure way to reduce the shortage of organs is to expand transplantation from living donors, which requires more resources from the network. The public needs better education about the benefits of donation by the living and assurances that it is almost always safe. And the network should identify and remove disincentives to donation, like the expenses donors incur for travel or for taking unpaid leave from work for the operation preparation, the procedure and recuperation. We also support tracking the long-term health of living donors, which the network should do more to promote.

The network should also keep encouraging innovative efforts like "kidney swaps" or "donor chains." Kidney swaps involve two donor-recipient pairs who are incompatible within the pair, but can donate to the other pair's recipient. (Think of it as a square dance where the couples switch partners halfway through.)

Donor chains begin with a living donor willing to donate to anyone on the waiting list. Instead of simply giving that donor's kidney to the next patient in line, the kidney can go to the would-be recipient in an incompatible donor-recipient pair; that donor, in turn, can then give to another recipient of an incompatible donor-recipient pair, with the chain continuing indefinitely. (Consider it the medical equivalent of "pay it forward.")

Patients count on doctors to be not only compassionate in providing care, but also dispassionate in examining data and vigilant in considering the undesirable consequences of any treatment. On these points, the new proposal for allocating kidneys from deceased donors falls short. And on the really pressing issues, it is not nearly ambitious enough.

Lainie Friedman Ross is a pediatrician and professor of clinical ethics at the University of Chicago. Benjamin E. Hippen is a transplant nephrologist at the Carolinas Medical Center in Charlotte, N.C.