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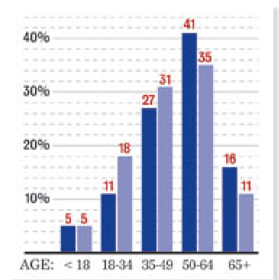
PROFESSION

Kidney transplant plan would give preference to younger patients

UNOS is considering an allocation change designed to get more life-years from available kidneys.

By KEVIN B. O'REILLY, amednews staff. *Posted March 28, 2011.*

The United Network for Organ Sharing is considering an overhaul of the nation's allocation plan that would give more kidneys to younger, healthier patients in an effort to achieve greater survival time from each transplant.



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The new system outlined by UNOS' Kidney Transplantation Committee would give the highest-quality kidneys to the 20% of recipients with the longest estimated post-transplant survival time. The other 80% of kidneys would be matched roughly by age, with recipients 15 years older or younger than the age of the deceased donor getting the highest priority.

UNOS is accepting comments on the change until April 1. A formal proposal is unlikely to come before the fall, and the earliest that the UNOS board of directors could consider the new plan is June 2012.

Currently, about 15% of kidneys -- those deemed "extended criteria donor" kidneys, usually from older or less healthy donors -- go to the patients who have spent the longest time on the wait list in their area. The remaining kidneys -- "standard criteria donor" kidneys -- go to patients based on a number of factors, such as how well-matched they are with the donor organ and how long they have waited.

There are more than 88,000 people on the wait list for a kidney, according to the Organ Procurement and Transplantation Network. Nearly 17,000 people received a kidney transplant last year, with about 10,000 coming from deceased donors and the rest coming from living donors. More than 4,600 people die each year because they do not get a kidney in time.

15% of kidneys go to patients based on how long they have waited for a transplant.

Changing the way deceased donor kidneys are allocated could increase the life span of all patients after transplant by more than 15,000 years, while adding nearly 5,000 years of life from kidneys, according to estimates in the committee's "concepts" paper, published in February and in the works for six years. Under the current system, the average recipient gains an extra 4.9 years of life after a transplant compared with how long they would have lived on dialysis. That figure would rise to 5.4 years under the new plan, the committee said.

"What we are really trying to do is to say that if we are going to have a fixed number of kidneys for a fixed number of people, what's the better way to distribute those kidneys to people within that same group?" said Richard N. Formica, MD, a member of the UNOS committee and associate professor of medicine at Yale School of Medicine in Connecticut.

"The No. 1 reason we lose a kidney transplant is that the patient dies with a kidney working," said Dr. Formica, a nephrologist. "We'd like for that to happen less often. If you have a kidney from an 18-year-old donor that is likely to last, say, 12 years, it would be much better to have that kidney in a 30-year-old and have that 30-year-old get the maximal life expected from that kidney than have that kidney in a 75-year-old where the person would likely die only having used five years of the expected life of that kidney. We'd rather take the kidney expected to last six years and give it to the 75-year-old."

The proportion of kidneys going to younger recipients has fallen steadily since 1990, while the percentage going to older patients has risen. In 1990, for example, 30% of kidneys went to recipients between ages 18 and 34 and 23% went to adults 50 to 64, according to the committee's paper. By 2009, just 13% of kidneys went to patients 18 to 34 years-old while 39% went to those between 50 and 64.

The life span of patients after receiving a kidney transplant has fallen by 18 months since 1995, according to estimates published March 16 in *The New England Journal of Medicine* by researchers at the University of Michigan Medical School and the Arbor Research Collaborative for Health, both in Ann Arbor, Mich.

"We are wasting hundreds of thousands of potential years of life," said Alan B. Leichtman, MD, professor of internal medicine at the University of Michigan Medical School. "The proposal for survival matching as described in the concept document has the potential to reclaim many of these lost years of life, and therefore warrants serious consideration."

Dr. Leichtman and his colleagues developed a system of rating donor kidneys that estimates how long they would function in the average recipient and would be used to allocate the kidneys under the new system.

Effect on older patients

Not everyone likes the overhaul concept. The new approach would hurt older patients, said Lainie Friedman Ross, MD, PhD, associate director of the University of Chicago MacLean Center for Clinical Medical Ethics.

"One of my big concerns is given how it's structured, most kidneys go to younger people," Dr. Ross said. "I would argue that it's discrimination against people who are older."

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If the allocation plan were changed, more than 1,100 kidneys would go to patients 50 and younger instead of going to people older than 50, the committee estimates. But Dr. Formica takes exception to the notion that the change would constitute age discrimination.

"My response to anyone who says that it's ageism is that I think it's ageism to not offer the younger kidney to

kidney in time.

someone younger and condemning them to a second transplant later on," he said.

Dr. Ross said she does not trust the simulations used by the committee to estimate the effect of potential changes because they were done on a national basis, whereas kidney allocation takes place on a regional basis and varies widely, depending on the number of candidates and donors in an area.

She said the committee did not take into account the potential effect of changes on living donors. If younger patients have greater and faster access to deceased donor kidneys, they may be less likely to ask loved ones to donate to them -- decreasing the total number of kidneys available to transplant.

Dr. Formica disagreed, arguing that even the 20% of patients estimated to survive the longest post-transplant still would experience a wait for available kidneys and probably would opt to avoid the wait if they could get a kidney from a living donor.

Comments on the UNOS paper can be mailed to the Kidney Transplantation Committee Liaison at UNOS, 700 N. Fourth St., Richmond, VA 23219 or sent by email (kidneypolicy@unos.org).

ADDITIONAL INFORMATION:

Reallocation proposition

The United Network for Organ Sharing is considering a kidney-allocation plan that would give preference to younger patients in an effort to get more life-years from each transplant. Here is how UNOS estimates the new system could affect the percentage of kidney transplants that go to patients in different age groups:

Kidney recipient age	Current system	Proposed system
Younger than 18	5%	5%
18-34	11%	18%
35-49	27%	31%
50-64	41%	35%
65 and older	16%	11%

Source: "Concepts for Kidney Allocation," Organ Procurement and Transplantation Network, Feb. 16 (optn.transplant.hrsa.gov/sharedcontentdocuments/kidneyconceptdocument.pdf)

WEBLINK

"Risk, Prognosis and Unintended Consequences in Kidney Allocation," *The New England Journal of Medicine*, March 16 (www.ncbi.nlm.nih.gov/pubmed/21410392)

"Improving the Allocation System for Deceased-Donor Kidneys," *The New England Journal of Medicine*, March 16 (www.ncbi.nlm.nih.gov/pubmed/21410390)

"Concepts for Kidney Allocation," Organ Procurement and Transplantation Network, Feb. 16 (optn.transplant.hrsa.gov/sharedcontentdocuments/kidneyconceptdocument.pdf)

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