A change in kidney allocation criteria in the United States could benefit patients on the waiting list for transplantation

The first international analysis of renal transplant patient data shows that a change in allocation criteria in the United States could benefit patients on the waiting list. Thousands more kidneys could be transplanted each year if the United States used, as France does, kidneys from older donors.

Nearly 5,000 people in the United States and 3,500 in Europe die each year waiting for a kidney transplant. Yet, over the same period, in the United States, more than 3,500 available kidneys were discarded. The Journal of the American Medical Association (JAMA) Internal Medicine today published the results obtained with the help of an international team, that compared the use of kidneys available in the United States and France between 2004 and 2014. Using a new approach based on validated analytical methods and computer simulations, this work revealed that French transplant centres are much more likely to transplant kidneys from older donors than their American counterparts and that this effectively increases the number of patients transplanted.

“These impressive results could transform transplantation practice in the United States, and significantly improve the health of thousands of American patients with kidney disease," said Dr Peter Reese, Associate Professor of Medicine and Epidemiology at the University of Pennsylvania. "This study is the first to use real data analysis using algorithmic simulations, thus allowing the comparison of kidney allocation systems between different countries. »

"This international comparison of organ acceptance systems shows that the United States could use many more viable kidneys from older donors or those with co-morbidities," said Professor Alexandre Loupy, Nephrologist at the Department of Nephrology and Renal Transplantation at Necker Hospital in Paris and Founder of the Paris Transplant Group (https://www.paristransplantgroup.org/). "In the context of the recent executive decree issued by the US government on kidney transplant practices, we are confident that these results will support the debate and necessary developments in the US system."

This analysis builds on a long tradition of using international comparisons to identify best practices in the treatment of patients with chronic diseases. The results show that the approach to kidney allocation and organ use in France is effective if applied in the United States:
- 17,435 kidneys (62%) of discarded kidneys in the United States were transplanted according to French criteria, lowering the organ rejection rate to 6.8% from the current 17.9% in the United States.
- The United States could provide American patients with more than 13,200 additional years of life per year. The most significant gains would be achieved by using organs from older donors or those with medical conditions such as hypertension.
- In France, the average age of kidney donors is 56 years, compared to 39 years in the United States. The current profile of the kidney transplant waiting list shows that American centres would have many opportunities to increase their use of currently discarded kidneys by offering them to older people.

“This new allocation system would benefit patients enormously, especially in terms of duration and living conditions,” said Dr Olivier Aubert, Assistant Professor at the Centre de recherche translational pour la transplantation d’organes de Paris (INSERM, France). "Since most candidates on the waiting list for a kidney transplant are on dialysis, which is a very expensive system, it would also save the U.S. healthcare system huge amounts of money very quickly."

The lack of organs for kidney transplantation is a major public health problem worldwide, due to mortality and excessive costs to health systems, while waiting-listed patients are kept on chronic dialysis. This is a major concern for many people, whether patients, professional societies, organ procurement organizations, the federal government or payers.

**Keywords**
- Kidney, allocation, transplantation, nephrology, Organ donor, healthcare, medicine, health, renal diseases, France, United States

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