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Clinical Summary | Transplant Medicine
Kidney Allocation

Expedited Kidney Allocation: Growth, Earlier Diversion, and Clinical Outcomes

Summary of a Cohort Study Using Paired Kidney Data, USA 2020–2024

Original research: Yu ME, Husain SA, Tucker EG, et al. JAMA Netw Open. 2026;9(3):e260257.

Keywords: Kidney Transplantation Organ Allocation Transplant Medicine Graft Survival Health Equity

Objective

To examine the use and clinical outcomes of expedited (out-of-sequence) allocation of deceased donor kidneys, using a paired-kidney design — comparing one kidney transplanted in sequence with the contralateral kidney from the same donor transplanted out of sequence.

Study Design

Retrospective cohort using a paired-kidney design — comparing kidneys from the same deceased donor (one in-sequence, one out-of-sequence) to control for donor-related confounders and isolate the effect of allocation pathway on transplant outcomes.

Study Method

Design: Retrospective cohort study

Period: 2020 – 2024

Setting: Scientific Registry of Transplant Recipients (SRTR), USA

Cohort: 15,602 kidneys from 8,544 deceased donors

Categories: Bilateral OOS | Unilateral OOS | Single kidney OOS

Analysis: Adjusted Cox proportional hazards models

Donor profile: Mean age 44 years; ~62% male

Outcomes

Primary: Patient survival and graft survival post-transplant

Secondary: OOS trends, sequence position at diversion, recipient characteristics, refusal patterns

Allocation: 50.5% of donors had ≥1 kidney transplanted OOS; unilateral OOS = 38.2% of all OOS transplants

Results

OOS growth (17-fold): Unilateral OOS rose from 97 cases / 15 OPOs (2020) to 1,698 cases / all 56 US OPOs (2024)

Earlier diversion: Median sequence position at first OOS diversion fell from 393 (2020) to 28 (2024)

Refusal shift: Donor-related refusals declined ~10–15%, suggesting increasing logistical drivers

Recipient profile — OOS vs in-sequence:

- Older (median 60 vs 57 years) | More often male
- Private insurance: 29.1% vs 23.0%
- Pre-emptive transplantation: 17.1% vs 10.2% | More likely White or Asian

Patient survival: HR 0.84 (95% CI 0.70–1.02) —not significant

Graft survival: HR 0.87 (95% CI 0.70–1.08) —not significant

Clinical Takeaway

Expedited kidney allocation increased 17-fold between 2020 and 2024 and organs were diverted far earlier in the match run — yet patient and graft survival remain comparable to standard allocation pathways, supporting the clinical safety of this strategy for improving organ utilisation.

Recipient disparities in insurance status and pre-emptive transplant access warrant ongoing monitoring to safeguard equitable access. Allocation governance and transparency will be key to ensuring this strategy benefits all patients equitably across transplant systems.

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