

# Outcomes of Second Opinions after Adverse Determination of Kidney Transplant Evaluation

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Although kidney transplantation provides the best outcomes for patients with kidney failure, fewer than one in seven patients initiating dialysis is waitlisted within 1 year.<sup>1</sup> While some patients are truly ineligible for transplantation, waitlisting is low even among suitable candidates, particularly those from disadvantaged groups.<sup>2</sup> Transplant evaluations are not standardized and have a degree of subjectivity in the assessment of which patients are suitable for waitlisting, which may lead to some candidates being inappropriately denied access to transplantation. We aimed to understand the outcomes of patients evaluated at our center after being denied waitlisting at another center.

We conducted a retrospective cohort study of patients who initiated a kidney-only transplant evaluation at our center between 2016 and 2019 (defined as attending  $\geq 1$  evaluation visit) after being denied waitlisting at a different center ( $N=53$ ) and followed patients through February 29, 2024. Patient characteristics and outcomes were obtained from the medical record. Descriptive statistics with chi-square or Fisher's exact tests (for categorical variables) or Kruskal-Wallis tests (for continuous variables) were used to compare patients who were waitlisted at our center versus those not waitlisted (*i.e.*, did not complete evaluation or were denied waitlisting). This study was approved by the Columbia University Medical Center institutional review board.

Among 53 patients included, the median age was 58 years (interquartile range, 45–68) (Table 1). Approximately half ( $n=26$ , 49%) were previously evaluated at another center in our city, whereas five (9%) were previously evaluated elsewhere in our state and 22 (42%) in different states. Reasons for being ruled out at prior centers were most commonly

related to medical risks or cardiovascular disease, whereas a minority of patients were previously denied waitlisting because of psychosocial concerns (Table 1).

Nineteen patients (36%) were waitlisted at our center, with a median time to committee approval of 27 weeks (interquartile range, 16–46). Compared with patients not waitlisted, waitlisted patients were more likely to be employed (58% versus 18%,  $P = 0.003$ ) and less likely to have diabetes (32% versus 62%,  $P = 0.04$ ), but had no significant differences in age, sex, or other major comorbidities (Table 1). Three patients waitlisted at our center were previously ruled out at multiple prior centers. Fourteen patients (74% of those waitlisted) received a transplant by the end of follow-up; all 14 achieved 1-year post-transplant survival with a functioning graft.

The findings that these patients were waitlisted after being denied waitlisting elsewhere and those who received transplants all experienced 1-year graft and patient survival provide direct evidence that transplant center practices sometimes lead to inappropriate denial of waitlisting to suitable candidates. Centers rely on both objective and subjective data to ascertain transplant candidacy, and subjective assessments of medical/psychosocial risk may result in inappropriate denial of access to the waitlist. Our findings are consistent with those of previous analyses showing that waitlisted candidates removed from the waitlist for being too sick have low postdelisting mortality, with no correlation between center-level probability of delisting and death—raising questions about centers' ability to accurately prognosticate outcomes.<sup>3</sup> The uneven application of psychosocial criteria when evaluating patients of lower socioeconomic status and minority race only compounds this

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**Table 1. Characteristics of included transplant candidates at the time of initiation of a second-opinion evaluation at our center**

Patient Characteristics	All n=53 (100%)	Not Waitlisted n=34 (64%)	Waitlisted n=19 (36%)	P Value
Age, yr	58 (45–68)	59 (52–68)	51 (27–68)	0.15
Female sex	22 (42)	13 (38)	9 (47)	0.52
<b>Race/ethnicity</b>				0.006
Black, non-Hispanic	12 (23)	5 (15)	7 (37)	
Hispanic	4 (8)	3 (9)	1 (5)	
White, non-Hispanic	25 (47)	14 (41)	11 (58)	
Other	12 (23)	12 (35)	0 (0)	
On dialysis at evaluation start	45 (85)	30 (88)	15 (79)	0.44
Diabetes	27 (51)	21 (62)	6 (32)	0.04
Coronary artery disease	4 (8)	4 (12)	0 (0)	0.37
Prior stroke or TIA	4 (8)	2 (6)	2 (11)	0.61
Heart failure	11 (21)	9 (26)	2 (11)	0.29
Peripheral vascular disease	9 (17)	7 (21)	2 (11)	0.46
Limb amputation	6 (11)	5 (15)	1 (5)	0.40
Employed	17 (32)	6 (18)	11 (58)	0.003
Declined by two prior centers	5 (9)	2 (6)	3 (16)	
<b>Prior evaluation center location</b>				0.73
New York City or Long Island	26 (49)	16 (47)	10 (53)	
New York State (not NYC)	5 (9)	4 (12)	1 (5)	
Other state	22 (42)	14 (41)	8 (42)	
<b>Reason not listed at initial evaluation<sup>a</sup></b>				—
Cardiac disease	9 (17)	6 (18)	3 (16)	
Vascular disease	7 (13)	5 (15)	2 (11)	
Immunologic risk	4 (8)	2 (6)	2 (11)	
Other medical risk	22 (42)	11 (32)	11 (58)	
Alcohol or substance use	5 (9)	2 (6)	3 (16)	
Nonadherence	5 (9)	4 (12)	1 (5)	
Other psychosocial	3 (6)	2 (6)	1 (5)	
Not documented	3 (6)	3 (9)	0 (0)	
Completed evaluation	29 (55)	10 (29)	19 (100)	<0.001
Time to complete evaluation, wk	24 (13–41)	16 (3–30)	27 (16–46)	0.03
Received a transplant	—	—	14 (74)	—
Living donor transplant	—	—	10 (71)	
Deceased donor transplant	—	—	4 (29)	
1-yr patient and graft survival	—	—	14 (100)	

NYC, New York City; TIA, transient ischemic attack.

<sup>a</sup>Columns exceed 100% and no between-group tests performed because of multiple reasons listed for individual patients.

problem.<sup>4,5</sup> Our findings further demonstrate that transplant centers' gestalt about candidates can be inconsistent and inaccurate and emphasize the need for patients to be able to access second-opinion evaluations—something often precluded by insurance policies.

Several interventions may improve access to transplant on the basis of these data, especially given concerns that waitlisting practices may become more conservative after waitlist mortality metrics are implemented, particularly at smaller centers. First, transplant centers should be mandated to provide more information about their selection criteria and resulting selectivity at the time of intake. Regulations should also require that centers provide information about and referral to alternative nearby centers for patients denied listing. These second opinions may be facilitated by creation of a centralized repository for evaluation results to expedite access to testing that was completed. Finally, because patients prioritize identifying centers at which they are likely to be waitlisted, center-level data on

waitlist approval practices and listing criteria must be made publicly available to help patients choose centers at which to initiate evaluations.<sup>6</sup> Such changes to improve transparency in candidate selection criteria are consistent with the recently proposed Increasing Organ Transplant Access Model developed by the Center for Medicare and Medicaid Innovation.<sup>7</sup> Given the survival and cost benefits of transplantation, other payers must also expand coverage for second-opinion evaluations, including across state lines when needed.

Limitations of our study include a relatively small number of included patients, its single-center nature, and that reasons for prior waitlisting denials may have been more complex than documented or may have improved before evaluation at our center. The fact that most transplant recipients received a living donor transplant may have affected the risk tolerance for these candidates and contributed to the high observed 1-year post-transplant survival. Given that we do not know the denominator of the total

number of patients declined for waitlisting at each center, we are unable to identify whether patients ruled out at certain types of centers are more likely to have favorable determinations of a second-opinion evaluation. It is also possible that some patients declined for waitlisting at our center were able to obtain a favorable second opinion elsewhere. These findings emphasize the need to improve the evaluation process and objectivity of evaluations to optimize access to transplantation.

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Disclosure forms, as provided by each author, are available with the online version of the article at <http://links.lww.com/KN9/A612>.

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#### Data Sharing Statement

Data cannot be shared. Personally identifiable due to small *n*.

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