

Persistent Disparities in Waitlisting After the Kidney Allocation System: Are We Exacerbating the Problem?



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Disparities in waitlisting for kidney transplantation are long-described and pervasive.¹⁻³ Closing this gap has proven difficult despite significant efforts and innovative approaches.⁴ Many of these disparities are caused by

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structural inequities that exist long before patients interact with the transplant health care system.^{5,6} As the transplant community addresses these inequities by clearly acknowledging their existence,⁷ updating kidney allocation policy to decrease geographic disparities,⁸ and implementing non-race based estimated glomerular filtration rate (eGFR) equations,⁹ it is important to reflect on where we fall short of our goals and obligations to the patients we serve.

In this issue of *Kidney Medicine*, Buford et al¹⁰ examine the interaction between race and age with transplant waitlisting among patients with incident dialysis. Buford et al¹⁰ focus specifically on non-Hispanic Black and non-Hispanic White patients in the United States in the period after implementation of the new 2014 kidney allocation system¹¹ when waiting time was first backdated to the start of dialysis, irrespective of when patients are registered on the waitlist.

Using data from the United State Renal Data System (USRDS), there were 439,455 adults aged 18-80 years initiating dialysis between 2015 and 2019. There was a significant disparity in kidney transplant waitlisting, with non-Hispanic Black individuals being 14% less likely to be waitlisted than non-Hispanic White individuals. The authors also emphasized the wide disparity between non-Hispanic Black and non-Hispanic White individuals in transplant waitlisting by age, with non-Hispanic Black individuals aged 18-29 years being 27% less likely to be waitlisted than non-Hispanic White individuals in that age group. The disparity by race persisted across sex, insurance type, predialysis nephrology care, and neighborhood poverty subgroups.

It is worth noting that the cumulative incidence of waitlisting was ~20% in the entire study cohort. Despite the obvious limitations imposed by the organ shortage, it is likely that more than 20% of these patients represent appropriate candidates for kidney transplantation. The percentage of prevalent patients receiving dialysis waitlisted has decreased nearly 30% (to 12.7%) since 2014, which is apparent in all subgroups of age, sex, and race or ethnicity.¹² It is important to recognize how far away from

the targets of the advanced payment models introduced by the advancing American kidney health initiative the transplant community currently stands.¹³ The capacity of the transplant system to accommodate these goals is likely inadequate; attention to this shortcoming may aid in mitigating disparities in the future.

What is perhaps most striking about these results is the incredible disparity in preemptive waitlisting. As these patients first appear in the USRDS the day that they are transplanted, the head start given to waitlisting non-Hispanic White patients is considerable. Although 66% of the incidence population of kidney failure were non-Hispanic White, they represent a disproportionately high 78% of the patients who are listed preemptively. That gap appears to narrow over time, mostly driven by the larger number of patients older than 50 years who have a relatively smaller difference in waitlisting. This still leaves younger non-Hispanic Black patients at a substantial disadvantage, mirroring the lower rates of waitlisting among the same group in the overall cohort.

Measures to target non-Hispanic Black individuals should be a focus of future investigations, as the importance of addressing the disparities induced by preemptive waitlisting cannot be overstated. For decades, it has been known that White, better educated, and privately insured patients enjoy disproportionately greater access to preemptive transplantation using deceased donor kidneys¹⁴; the same is true of living donor kidneys.¹⁵ The first-come, first-serve approach to preemptive transplantation is not uniform worldwide, reflecting the challenges of these accommodations.

Some notable limitations include the lack of information about the referral and evaluation process, which is a key step to addressing transplantation as a population health problem.¹⁶ In turn, this limits the granularity of data about medical contraindications. However, it should be noted that the paper's investigators specifically noted that rates of cardiovascular comorbid conditions at the time of waitlisting are higher in non-Hispanic White patients (the cumulative percentage of those with cardiac failure, atherosclerotic heart disease, or other cardiac disease was 44.9% in non-Hispanic White versus 37.9% in non-Hispanic Black individuals, Table S6), which would suggest medical complexity alone does not explain the disparities in waitlist rates.

Previous studies affirmed that comorbidities that might affect transplant eligibility among non-Hispanic Black and Hispanic patients do not account for the disparities in transplant access.¹⁷ Similar to the current article, Ku et al¹⁷

found that ethnic disparities in transplant access were attenuated by the time from initial kidney failure onset, arguing that interventions to promote transplantation among ethnic minorities may have the greatest effect early in the referral process. Of importance, data on the social drivers of health, transplant evaluation, and committee decision processes can help shed light on the opportunities to assess the role of the transplant centers in both improving and perpetuating disparities. Although it was not the goal of the study, some data on waitlist outcomes (eg death rate on waitlist and % transplanted) would also be of interest to ensure that the allocation system itself functions equitably under these circumstances.

Although we cannot solve these disparities with 1 step, it is important to continue to document, explore, and understand these disparities. These problems are complex and require large-scale, multilevel interventions to address them. It is incumbent on us to evaluate each policy change to see how well the transplant system functions, including waitlisting, allocation, long-term outcomes, and then to use these data to inform future implementation adjustments. We also need to include patient-centered outcomes and broad, inclusive definitions of equity when evaluating our processes. Otherwise, we will run the risk of undermining trust in the transplant system despite heroic efforts toward transplant equity.

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