

Reducing Disparities in Assessment for Kidney Transplantation

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“If you don’t have time to do it right, when will you have time to do it over?”

—John Wooden

In 1972, Congress enacted the Social Security Amendments for extending Medicare benefits to people with ESRD with the goal of treating renal failure and enabling rehabilitation (productive working lives) through dialysis treatments and kidney transplantation (1). However, 40 years later, we find significant disparities in the likelihood of racial and ethnic minority and/or low socioeconomic patients with ESRD being informed of the option of transplantation, being placed on a waiting list, or receiving a kidney transplant (2–8). Furth *et al.* (3) reported racial differences in access to the kidney transplant waiting list for children and adolescents, whereas Wolfe *et al.* (4) and Hall *et al.* (5) reported similar findings among diverse populations of adults with ESRD. Patzer *et al.* (6) and Hall *et al.* (5) reported neighborhood poverty to be an important mediator of racial/ethnic disparities in kidney transplant, whereas one adjusted analysis by Keith *et al.* (7) noted that racial/ethnic minorities and patients with a low level of educational attainment were markedly less likely to be waitlisted for renal transplantation. Kucirka *et al.* (8) noted a 53% lower relative rate of waitlisting among patients not informed of transplant options, reinforcing the interdependence of key steps along the path to receiving a transplant. In addition geographic variations in waitlist and kidney transplant rates among ESRD patients may contribute to disparities, with rural blacks being less likely to be waitlisted and transplanted than those residing in urban areas in some studies (9), but not all (10).

Although the renal literature has reported on many elements along the transplant continuum that influence the receipt of a kidney transplant such as patients not being informed about transplant options, declining information, or being medically or psychologically unfit, less clear is the category of “patient has not been assessed.” Understanding which patients may be at greater risk for not being assessed can provide the requisite background for more detailed approaches to addressing this matter. In this issue of *CJASN*, Johansen *et al.* (11) hypothesized that not being assessed for transplant suitability before or shortly after the time of initiation of dialysis could be associated with lower

likelihood of waitlisting and kidney transplantation and that this could be a contributing factor to racial/ethnic and socioeconomic disparities in kidney transplantation. The Medical Evidence Form (form CMS-2728) was modified in 2005 to record information about whether incident dialysis patients were informed of kidney transplant options and for those who were not informed to provide the reasons, including “patient has not been assessed.” The authors evaluated nonassessment as a reason for not being informed about transplant options. Analyzing data from >425,000 adult patients without prior kidney transplant beginning dialysis in the United States between January 1, 2005 and September 30, 2009, they found one in eight patients (12.5%) had reportedly not been assessed for transplantation. Risk factors included lack of private insurance (adjusted odd ratio of 1.33 for Medicaid) and black race, especially among younger patients 18–<35 years of age (adjusted odd ratio, 1.27). Not being assessed for transplant around the time of dialysis initiation was associated with both lower likelihood of waitlisting (hazard ratio of 0.59 in the first year) and transplantation (hazard ratio of 0.46 in the first year), supporting the relationship between report of not being assessed and reduced access to transplantation. In summary, they found that even after multiple adjustments, including whether patients had been seen by a nephrologist prior to starting dialysis, the risk of not being assessed for transplantation was greatest for black patients and those with nonprivate insurance, especially for younger patients.

This brings us back to our original question of “reducing disparities in assessment for kidney transplantation” and how long until we achieve transplantation equity? How long is hopefully not much longer (2). Although many of the underlying factors perpetuating racial/ethnic and socioeconomic disparities have been identified (2,12,13), the implementation of solutions continues to lag woefully behind. Johansen and colleagues have identified another important gap in the continuum of kidney transplantation. A key point they make is that universal early assessment of kidney transplant options is achievable at a provider/health system level and that this could reduce both the transplant waiting time and the magnitude of racial/ethnic and socioeconomic disparities.

This study by Johansen and colleagues reinforces several of the recommendations of Purnell *et al.* (14),

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Table 1. Promising initiatives to address barriers to kidney donation for racial-ethnic minorities (adapted from ref. 14)

	Donor Identification Initiatives (Live Donor Kidney Transplant)	Transplant Evaluation Initiatives	Kidney Transplant Initiatives	Post-transplant Initiatives
Recipient–donor initiatives	Culturally sensitive home and community-based education Programs to educate and engage patients/ families and social networks	Financial counseling to address insurance/economic concerns Close assessment of co-morbid conditions, and family/social support	Educational/behavioral interventions to improve pre-emptive transplant education and fears of specialized procedures at an institution	Cultural, literacy, and language appropriate efforts to support patient self-care
Health care provider initiatives	Enhanced provider patient/family LDKT education Cultural competency and racial diversity of health care providers	Educational support from heterogeneous team of health professionals Build patient trust for providers	Improved health care access and continuity of care	Long-term medical follow-up for living donors Pharmacist-led counseling about medication therapy and adherence
Health system initiatives	Standardized transplant education and training for nontransplant medical professionals	Partnerships with non–health care professionals to enhance social support Support for completing transplant evaluations	Paired kidney exchange programs HLA desensitization and ABO incompatible programs	Comprehensive tracking and health-related monitoring of living donors
Population–community initiatives	Community-based partnerships to promote awareness and trust in minority communities Increased availability of healthy foods, safe physical activity space, and community health screenings	Satellite outreach transplant centers to address potential geographic barriers and enhance rates of transplant referral in rural areas Assess facility level effects on outcomes	Federal and state policies to support living donors	Expanded medication coverage and access to primary health care Policies to ensure future insurance eligibility for living donors
LDKT, living donor kidney transplant.				

who recently reported on both a conceptual framework describing various barriers minorities face along the path to receiving a kidney transplant (focusing on living related kidney donation) and proposing promising initiatives to address many of the barriers to living kidney donation for racial-ethnic minorities, some of which could be relevant for cadaveric transplants and majority patients.

It is also a reminder that barriers to kidney transplantation are multifactorial and many operate at different levels related to potential recipients and donors, health care providers, health system structures, and communities (14). Over the years, far too many patients have fallen through holes in the ESRD-kidney transplant health system structure, and whatever the reason, it is likely too late for most to receive a kidney transplant. However, now is always the time to do the right thing for the many existing patients receiving or approaching the need for dialysis treatments. The right thing would be creating a health system structure that promotes and supports kidney transplantation at the highest level. In 1991, an Institute of Medicine report on “Kidney Failure and the Federal Government” recommended that (1) Congress eliminate the 3-year Medicare eligibility limit for successful transplant patients and authorize a lifetime entitlement comparable to that of dialysis patients and (2) that coverage for payment of immunosuppressive medications for kidney transplant patients be made coterminous with the period of entitlement” (15). Although the duration of Medicare coverage for immunosuppressive therapy has been extended to 3 years, the impending “cliff” for Medicare coverage and social security benefits (for those <65 years) weighs particularly heavy on the minds of younger, lower socioeconomic patients who are disproportionately racial/ethnic minorities and at great risk to have insufficient resources to support their transplant after Medicare coverage ends. However, Medicare will resume support for dialysis therapy following transplantation failure at a cost of more than \$50,000 a year.

The Way Forward

“No snowflake in an avalanche ever feels responsible.”
—Voltaire

Yet another reminder has been issued to the nephrology community—our challenge to more effectively engage the increasingly diverse pre-ESRD and ESRD populations to achieve equity and improved rates of renal transplantation. Effective strategies for informing and assessing minority and low socioeconomic patients require a multifactorial approach (Table 1). Two major elements to consider are provider level (physician biases) and system level (Medicare coverage). Leadership in addressing the many factors that contribute to delays in transplantation and disparities in access could be more tangibly influenced in an environment of leadership by example. Ayanian *et al.* (16) examined physicians’ beliefs about racial differences in referral for renal transplantation and reported that when physicians did not view patient–physician communication and trust as an important, their white patients were 50% more likely than black patients to report receiving sufficient information about transplantation. Provider

biases about transplantation are unconsciously informed, in part, by the social construct for ESRD care that includes loss of Medicare coverage and social security after transplant (for those <65 years of age), a potential devastating impact for younger, low socioeconomic ESRD patients who are disproportionately minority patients. Case examples and patient–family discussions about potential loss of coverage are familiar to providers and influence their perceptions of patient receptivity for transplant and the vigor of their recommendations. Let us maintain and even increase our vigilance in the promotion of renal transplantation. One simple first step is to ensure all patients are informed and push for them to be assessed. We must “effectively” communicate with our patients, and if we cannot build the necessary trust with them, we should look to other members of the ESRD team to take that lead. Finally, we need to ensure a system that will support lifetime dialysis care and support lifetime kidney transplant care if we are to truly create equity for transplantation.

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Disclosures

None.

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