



KidneyNews

January 2018 | Vol. 10, Number 1

Studies Find Persistent, Worsening Disparities in US Pre-ESRD Care

By Bridget M. Kuehn



Despite growing awareness of racial disparities in kidney care, 2 recent studies found that pre-dialysis or pre-end stage renal disease (ESRD) care for minorities hasn't improved and may actually be getting worse.

Data from the US Renal Data System (USRDS) show

that over the last decade access to predialysis care for minorities actually worsened, according to Tanjala Purnell, PhD, MPH, an assistant professor of surgery in the division of transplantation at Johns Hopkins University School of Medicine. A second study found that fewer black patients are getting pre-ESRD care, and that black patients who do receive pre-ESRD care seem to benefit more than white patients. Both studies were presented at Kidney Week 2017.

"Clinicians need to be aware this is a problem we are still struggling to deal with," Purnell said.

Care by a nephrologist is recommended for patients in the later stages of chronic kidney disease, explained Purnell. Nephrology care improves access to transplant. It also ensures that patients start dialysis with fistula and has been linked with better quality of life and longer lifespans for patients receiving dialysis, she said.

Purnell and her colleagues analyzed data from the USRDS on 934,599 adults who initiated chronic dialysis between 2005 and 2015. They found that racial and ethnic disparities in pre-dialysis care actually worsened. Between 2005 and 2007, black patients were 14% less likely than whites to receive care by a nephrologist prior to starting

dialysis, and Hispanic patients were 22% less likely than whites to receive such care. Between 2008 and 2010, blacks were 14% less likely to receive such care and Hispanics were 30% less likely. More recently, between 2010 and 2013 those figures declined further with black patients 19% and Hispanic patients 29% less likely to receive pre-dialysis care.

"We were disappointed and surprised," said Purnell. She and her colleagues have ruled out possible explanations like difference in access to primary care or insurance among subgroups of minority patients. Even older minority patients with Medicare are less likely to get the recommended pre-dialysis care. "It's across the board," she said. The one exception was young patients aged 18 to 24.

Purnell and her colleagues plan to meet with their nephrologist collaborators and to discuss the results with dialysis patients to try to understand what might be driving this trend and how to ensure more patients get pre-dialysis care.

"We want to bring patients to the table and find out what works and what doesn't," Purnell said.

Previous work by Purnell and her colleagues found that some patients, particularly those who are not having

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Survival Rates Are Improving for US Patients with Kidney Failure

Individuals with end stage renal disease (ESRD) have a very high risk of premature death, but a new analysis indicates that their excess risk of all-cause mortality—over and above the risk in the general population—decreased significantly between 1995 and 2013 in the United States. The findings, which come from a study appearing in an upcoming issue of the *Clinical Journal of the American Society of Nephrology*, are encouraging and suggest that efforts to improve care for patients with kidney failure have resulted in improved survival.

Although registry data indicate that survival of patients with ESRD has improved in recent decades, general population survival has also benefited from public health ef-

forts (such as smoking prevention) and medical advances (such as improved cardiovascular interventions).

To see if the longer life expectancy observed in ESRD registries simply reflects improved general population survival, a team led by Bethany Foster, MD, MSCE, of Montreal Children's Hospital and the Research Institute of the McGill University Health Centre, and Benjamin Laskin, MD, of The Children's Hospital of Philadelphia, applied time-dependent relative survival modeling to examine changes over time in the excess risk of death in persons with ESRD. Excess risk was defined as the mortal-

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symptoms, may not want to see a specialist because they feel that would be accepting they will get worse.

“In the African American and Hispanic communities, we may need to educate patients about the benefit of seeing a specialist before they get sick,” she said. Purnell suggested that more collaborative models of care where primary care physicians work more closely with nephrologists may also help.

A second study co-authored by Jennifer Bragg-Gresham, MS, PhD, an assistant research scientist at the Kidney Epidemiology and Cost Center at the University of Michigan, and her colleagues looked at USRDS data on 791,248 patients receiving dialysis who began treatment between 2006 and 2015. They found that 53.1% of black patients received pre-ESRD care compared with 60.1% of white patients. All patients receiving pre-ESRD care had a lower risk of death, but black patients appeared to benefit disproportionately, with a hazard ratio of death of 0.73 compared with 0.81 for white patients.

“The reason why pre-ESRD care is associated with superior survival among blacks is not clear,” said Bragg-Gresham. “However, we speculate that either the health status of black patients reaching dialysis is better than their white counterparts or they are biologically more responsive to treatments given to them during their care.”

She noted that previous studies have shown that black patients have better survival than white patients on dialysis, which may partly be explained by the fact that on average black patients start dialysis at a younger age, have fewer comorbid conditions, better nutritional status, and better laboratory measures than white patients. Bragg-Gresham and her colleagues plan to expand their analysis to look at whether disparities exist for other races and ethnicities.

Vanessa Grubbs, MD, associate professor at the University of San Francisco in the division of nephrology, said she is not surprised by the persistent disparities in kidney care. She said most efforts to reduce disparities have been very narrowly targeted and don’t address larger societal issues like systemic racism.

“We tend to think everything that improves health happens in the hospital,” she said. “We aren’t looking at the larger things happening in this country.”

Physicians often treat race as a biological construct rather than a social one, which may also contribute to

disparities, she noted. For example, race-based adjustments to glomerular filtration rate, which are intended to account for higher than average muscle mass among African Americans, may delay referral to transplant for months or even years.

“That can definitely affect care,” Grubbs said.

Physicians often cite distrust of health care among minorities as a reason for disparities in care, she said. But the number of minority physicians still lags, and many physicians don’t address their patients’ day-to-day experiences with racism or their family’s history of dealing with institutional racism. Addressing those issues and reassuring patients that the care they are receiving is the same they would give a family member can help, she said.

“No one really speaks to the elephant in the room,” Grubbs said. “It would be helpful if physicians just called it out.” ■

“Racial and Ethnic Disparities in Access to Predialysis Nephrology Care in the US: Have We Made Any Progress over the Last Decade?” (Abstract SA-OR014)

“Pre-ESRD Nephrology Care Associated with Larger Survival Benefit for Black Compared to White Patients on Hemodialysis (HD)” (Abstract SA-OR037)

Perceived Discrimination and Social Disadvantage May Adversely Affect Kidney Health

By David White

Shedding further light on disparities in, and the impact of discrimination on, kidney disease rates and care was the focus of a Kidney Week 2017 session titled “Context Is King: Neighborhood and Social Networks as a Risk Factor for Chronic Disease.”

Many studies about income and race disparities in the incidence of kidney diseases are well known, including higher incidence rates for lower income blacks and whites (1) and the heightened proportion of ESRD incidence across neighborhood poverty levels (2).

Deidra C. Crews, MD, ScM, FASN, outlined some of the more nuanced research on this subject in her presentation, “Disadvantage, Physiologic Stress, and Kidney Diseases in the United States,” including work she and others conducted in the REGARDS study (REasons for Geographic And Racial Differences in Stroke study) (3). In REGARDS, researchers examined the effect of the density of county-level poverty on ESRD risk, that is, whether or not poor counties being surrounded by other poor counties versus by more affluent counties affected ESRD risk. They found that greater density of county-level poverty was associated with greater individual risk of ESRD, but that household income was a stronger predictor of an individual’s ESRD risk.

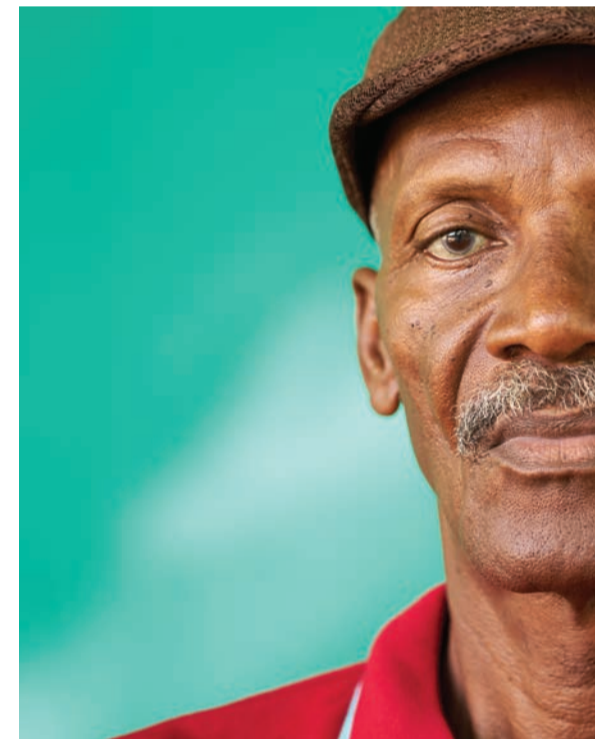
An often-cited finding that, overall, blacks survive dialysis at higher rates than whites led researchers to examine survival rates among younger (<50 years of age) blacks and whites of both higher and lower socioeconomic status (SES) (4). Over five years of follow-up, beginning after dialysis initiation, both the higher and lower SES young blacks fared worse than their white counterparts. In a study focused on earlier kidney disease, Crews and colleagues found higher rates of albuminuria in those with lower incomes (5). Al-

though the association with income was noted for both white and black study participants, the association was strongest among blacks.

Perceived discrimination based on race or gender

Another study by Crews and colleagues looked at perceived discrimination and longitudinal change in kidney function in urban adults. The study included 1620 participants with preserved baseline kidney function measured by estimated glomerular filtration rate (eGFR): 662 whites and 958 African Americans aged 30–64 years. Perceived racial and gender discrimination were self-reported, along with a general measure of experience of discrimination (6). Overall, high perceived gender discrimination was associated with lower baseline and follow-up eGFR. Among white women, a high experience of discrimination was associated with lower baseline eGFR, and among African American women, both perceived racial and gender discrimination were linked to lower follow-up eGFR.

Saban K et al. diagrammed the relation of cumulative life stressors to allostatic load—the cumulative impact of physiological wear and tear related to maladaptive stress patterns that predispose individuals to disease (7). Allostatic load is one example of how social disadvantage “gets under the skin,” Crews said. She noted that social disadvantage is a strong risk factor for kidney diseases, and that even perceived discrimination is associated with kidney function decline among specific race/gender groups. Crews called for studies examining biological and behavioral mediators of social disadvantage and kidney outcomes, intervention studies targeting these mediators, and advocacy for policies supporting socially disadvantaged individuals’ health. ■



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