Addressing Social Determinants of Health in Blood Pressure Control and Cardiovascular Risk in Patients with CKD

By Karen Blum

Social determinants of health (SDOH) and structural racism are key drivers of disparities in blood pressure control and cardiovascular risk in patients with chronic kidney disease (CKD), said Dimushika Mohortige, MD, MPH, assistant professor in the Institute for Health Equity Research at the Icahn School of Medicine at Mount Sinai in New York City, at Kidney Week 2023.

In an effort to improve kidney care for those in underserved communities, Mohortige introduced a session reviewing how SDOH contribute to inequities in cardiovascular disease (CVD) prevention in patients with CKD.

The conditions in which people live, work, play, and pray shape their experience in terms of health outcomes, said Anika Hines, MSPH, MPH, assistant professor of health behavior and policy at Virginia Commonwealth University School of Medicine in Richmond. This includes factors such as the wealth of local communities and related quality of schools, availability of healthy food and green spaces, noise, stress, and access to health care.

In one example, a recent study (1) found that factors such as physician environment, safety and social cohesion of neighborhoods, plus perceived stress and discrimination on cardiovascular health all had influence on the difference in cardiovascular health factors like blood pressure and on behavior like cigarette smoking between Black and White participants, Hines said.

There are several steps clinicians can take to work to address SDOH, Hines posited:

- Acknowledge the role of structural factors. Remember that the patient you see represents not just themselves but the broad, lived experience of their family or community.
- “These societal structures may impact the way that they make decisions…or their health behaviors,” Hines said. “We should not treat behaviors as just individuals’ ‘moral defects’ but think about broader levers that can impact an individual’s health or their healthy decision-making.”
- Engage with patients in equiposed discussions about navigating barriers. Strive to engage with patients in a way that allows them to tell their lived experiences that could illuminate opportunities as well as barriers to implementing changes you might ask them to make in terms of their health.

Provide access to societal resources. Be aware of organizations and agencies providing accessible services for patients in need in your area, so you can direct patients appropriately.

SDOH in the Hispanic community

Hispanic individuals represent the largest ethnic minority in the United States, with approximately 63.6 million people recorded in 2022 census data (2), said Tali Elfassy, MSPH, PhD, assistant professor of medicine and hypertension specialist at University of California Los Angeles Health, citing data from the National Center for Health Statistics. They also have the highest incidence of kidney failure compared with other groups (8), she said.

However, there is a survival paradox in that Black patients on dialysis actually have lower mortality compared with White patients on dialysis, Nichols added. Research looking to explain this phenomenon has found that Black patients have lower levels of C-reactive protein (9) and genetic variation in levels of apolipoprotein L1 (10). This survival advantage begins even before dialysis, research has found (11). “It begs the question: What’s contributing to this, and also, are there markers that we can potentially identify in individuals?” Nichols said.

Several major pathophysiological mechanisms link CKD and CVD outcomes, she said, such as anemia, inflammation, and increased oxidative stress and accumulation of uremic toxins (12). The two conditions also are impacted by comorbidities, monitor responses to therapy, and educate patients on potential risks for disease progression, Nichols said.

References