Striving to Understand Disparities in Cancer Care

A key element of the mission of the Sidney Kimmel Cancer Center–Jefferson Health—and an objective of many researchers across the University—is to understand and mitigate the disparities in cancer incidence, treatment and outcome too often experienced by patients who are African American or Latinx, have low incomes or have limited access to care.

In the Philadelphia region, for example, prostate cancer incidence and mortality rates are significantly higher for African Americans than Caucasians, but the causes of this major disparity are unknown. Many researchers have believed that the difference in outcomes results from African American men's poor clinical response to existing treatment for advanced disease, as compared to Caucasian men's response. But a groundbreaking study—led by **William Kevin Kelly, DO**, professor of medical oncology and urology—directly challenges that long-held concept.

"Indeed, the study is paradigm shifting," observes **Karen E. Knudsen, MBA, PhD**, CEO of the American Cancer Society, former enterprise director of the NCI-designated Sidney Kimmel Cancer Center.

Dr. Kelly's study was a meta-analysis of patient data from 8,820 men with metastatic castration-resistant prostate cancer (mCRPC) who had been treated with a docetaxel and prednisone (DP)-based regimen during nine phase III clinical trials. The group included men who self-identified as either Caucasian, Black or Asian (with four percent not specifying). The primary goal of the analysis was to compare the response to therapy and overall survival.

The results: "We observed no differences in clinical outcomes by race and ethnic groups," says Dr. Kelly. "And, in this case, 'no difference' is a highly significant finding. The fact that Black, Asian and Caucasian men who were treated the same did equally well in the clinical trials strongly suggests that there are other causes for the poorer outcomes and mortality rates experienced by Black men with mCRPC."

This study was one of a series that Dr. Kelly and his colleagues are conducting on treatments and other factors that may underpin disparities. "Our ultimate goal is to help pinpoint the drivers of prostate cancer disparities—in particular, whether they are biologically based or result from differences in factors such as quality of care, access to care, or social determinates of health—and identify ways to eliminate them," Dr. Kelly says.

Although the use of a relatively new, effective and less-expensive breast cancer treatment is on the rise, African American women and those without private insurance are too frequently not offered the therapy. As part of a comprehensive treatment plan, the approach—called hypofractionated whole breast radiation (HR)—delivers a higher radiation dose per treatment than the traditional regimen, and cuts the number of treatment sessions roughly in half. The HR approach is as effective as the traditional approach at reducing the risk of the cancer returning for most women. It is also more cost-effective and offers many patients fewer side effects and better breast restoration outcomes following treatment.

Unfortunately, in a study of nearly 260,000 early-stage breast cancer patients, **Alliric Willis, MD, MSPH**, professor of surgery and vice chair and assistant dean for faculty affairs, and research colleagues found that patients who identified as Caucasian were most likely to receive HR, while those who identified as African American were least likely. "Taking all other factors into account, African American women were 15 percent less likely to be treated with HR than Caucasian women," he says. "Thus, even though treatment guidelines do not take race into account, it is clearly a factor in delivery of this often-preferred breast cancer treatment."

Socioeconomic status also apparently affects the delivery of HR therapy: patients with private insurance were more likely to receive HR than were uninsured patients or those on Medicaid; and those who lived in the highest-income zip codes were much more likely to undergo HR than patients from lowest-income zip codes. As well, treatment facilities associated with academic medical centers were twice as likely to use HR as community cancer or integrated network cancer facilities.

"Patients should have access to all treatment options no matter their race, socioeconomic background or where they seek care," Dr. Willis says. "We hope that our research will help to address gaps in provider education and extend this favorable treatment to all patients."

Lung cancer treatment is another area where racial disparities persist—in both outcomes and treatment types. For example, although African American patients are now more likely than they were a decade ago to receive the most-effective treatment for early-stage non-small cell lung cancer, they continue to be less likely than Caucasian patients to receive that treatment. Surgical removal of a portion of lung is the most-effective current treatment; and two types of radiation therapy are used as a second-line therapy, with stereotactic ablative radiotherapy shown to be more effective than external beam radiation therapy for early-stage disease.

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> Olugbenga Okusanya, MD

Assistant professor of surgery **Olugbenga Okusanya, MD**, and research colleagues examined information on 192,415 patients in the National Cancer Database to try to understand whether reliance on second-line treatments for African American patients has contributed to the disparities in long-term outcomes across populations.

"We found some progress being made in closing the disparity in the utilization of surgery in Black patients," says Dr. Okusanya, "and no disparity across racial groups in use of the two second-line therapies. Additionally, while other studies have suggested that comorbidities in Black patients were one of the drivers for worse outcomes—rather than the lower utilization of surgery—our research found that when Black patients get surgery there is actually a trend for them to have better survival than their white counterparts."

Dr. Okusanya's studies on disparities in cancer care continue. "We must keep working to reduce barriers to successful treatments for Black patients across cancer types," he says, "and better understanding drivers of these inequities is key to fixing them." ■