Racial disparities in medical care represent a well-known public health crisis that has risen to prominence in recent months. These variations stem from a number of influences, including genetic factors, prevalence of comorbidities, socioeconomic status, access to high-quality care, cultural differences, and institutionalized racism. The impact of racial discrimination on cancer outcomes warrants particular attention; epidemiologic trends suggest that racial divides may deepen for those with brain metastasis in the near future. Improvements in oncologic care in the twenty-first century have yielded prolongation of survival for those living with cancer. As a direct consequence, many cancer patients live long enough to develop metastatic spread of disease to the central nervous system, a turning point marked with high morbidity and mortality. Furthermore, aging of the baby boomer generation has led to an unprecedented growth in America’s elderly population, and the 65+ age group is expected to double by the year 2050. This coincides with the same time period in which US non-Hispanic whites are projected to become a minority population, giving rise to a collective majority of Hispanics, African Americans, and Asians. As such, racial discrimination in oncologic care will translate to great risk to the aging minority population if not addressed immediately.

Identifying existing disparities and increasing public awareness is the essential first steps in addressing this problem. In turn, scientific publications have exploded with observations of inferior outcomes in minorities with cancer in the last two decades. In brain tumor literature, African Americans are more likely to harbor de novo brain metastases at cancer diagnosis and experience higher in-hospital mortality with brain metastasis and primary brain tumor resections. African American and Hispanic patients are less likely to receive stereotactic radiosurgery for brain metastases compared with non-Hispanic whites. Part of the discrepancy arises from the fact that minorities and the economically disadvantaged are less likely to be cared for by high-volume providers, introducing a higher rate of treatment-related complications and reduced access to emerging therapies.

Lamba et al offer a valuable addition to this body of literature by highlighting a racial difference that can be addressed by individual physician practices: the administration of supportive medication for elderly minorities with brain metastases. To investigate this trend, the authors used the SEER-Medicare database and Medicare Part D claims to analyze prescribing practices among patients with newly diagnosed brain metastases between 2007 and 2016. A total of 17957 patients were included in the final analysis. Supportive medications that were prescribed in the first month following brain metastasis diagnosis were categorized into 14 different palliative classes, including pain medications, anti-emetics, and psychotropic-acting medications.

One might surmise that presenting with more advanced stages of cancer would lead to an increase or at least equitable allocation of supportive medications for minorities. However, the opposite is true. The authors found a significant disproportionate reduction in a wide variety of supportive prescriptions among African Americans, Hispanics, and Asians compared with non-Hispanic whites. All included minorities saw a reduction in headache aids, antidepressants, and anxiolytics. African Americans additionally had fewer anti-emetics, steroids, psychostimulants, sleep aids, and appetite stimulant prescriptions. Hispanic patients received fewer antipsychotic drugs, sleep aids, and appetite stimulants. Asian patients were prescribed fewer opioids, anti-emetics, anti-epileptics, steroids, muscle relaxants, and appetite stimulants.

These results are upsetting on a human level and underscore a high unmet need in this patient population. Unfortunately, these findings are also not surprising. Epidemiologic observations in oncology have already illustrated that minorities and the economically disadvantaged receive less suitable cancer-directed care, which may be partially due to exorbitant medical expenses for an already financially struggling population. Racial discrepancies in clinical trial enrollment are also a well-known phenomenon, reflecting a combination of inadequate access to high-quality care and a legacy of distrust in the medical system in the wake of the US Public Health Service’s Tuskegee syphilis experiment (1932–1972) and other discriminatory health care practices. However, the administration of inexpensive pharmaceutical agents aimed at optimizing quality of life in cancer patients cannot be fully explained by economic
hardship, and therefore raises the question of communication and cultural barriers between health care providers and minorities with cancer.

Adjustments in individual, institutional, and insurance practices are all required to close the gap of racial disparities in cancer care. Lamba et al’s findings underscore the providers’ social obligation to investigate the palliative needs of their patients, use medical interpreters and cultural awareness to understand the symptom burden afflicting diverse populations, and offer both pharmacologic and complementary interventions on an individual basis. The implementation of early palliative care and supportive services in cancer patients cannot be overemphasized; this has been shown in multiple randomized controlled trials to improve quality of life, reduce depression rates, increase satisfaction with care, and lengthen overall survival.8 On a national level, Medicaid expansion in 2014 under the Affordable Care Act reduced the number of uninsured African Americans by one-half, and epidemiologic studies speak for themselves. In expansion states, African Americans saw a greater percentage rise in timely cancer treatment relative to whites, effectively closing the gap in this disparity statistic.9 The overall cancer death rate declined faster in African Americans relative to whites in both men (2.6% vs 1.6% per year) and women (1.5% vs 1.3% per year).10

Racial disparities infiltrate all aspects of medical care, and patients with brain metastasis are no exception. In treating a population with consistently poor functional status and quality of life due to neurologic morbidity, health care providers must strive on both an individual and an institutional level to overcome socioeconomic and cultural barriers in order to address their palliative needs.

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**References**

1. Akinyemiju T, Sakhuja S, Waterbor J, Pisu M, Altekruse SF. Racial/ethnic disparities in de novo metastases sites and survival outcomes for patients with primary breast, colorectal, and prostate cancer. *Cancer Med.* 2018;7(4):1183–1193.
2. Nuño M, Mukherjee D, Elramsasy A, et al. Racial and gender disparities and the role of primary tumor type on inpatient outcomes following craniotomy for brain metastases. *Ann Surg Oncol.* 2012;19(8):2657–2663.
3. Curry WT Jr, Barker FG 2nd. Racial, ethnic and socioeconomic disparities in the treatment of brain tumors. *J Neurooncol.* 2009;93(1):25–39.
4. Kann BH, Park HS, Johnson SB, Chiang VL, Yu JB. Radiosurgery for brain metastases: changing practice patterns and disparities in the United States. *J Natl Compr Canc Netw.* 2017;15(12):1494–1502.
5. Lamba N, Mehanna E, Kearney RB, et al. Racial disparities in supportive medication use among older patients with brain metastases: a population-based analysis. *Neuro Oncol.* 2020. doi: 10.1093/neuonc/noaa054
6. Esnaola NF, Ford ME. Racial differences and disparities in cancer care and outcomes: where’s the rub? *Surg Oncol Clin N Am.* 2012;21(3):417–437, viii.
7. Murthy VH, Krumholz HM, Gross CP. Participation in cancer clinical trials: race-, sex-, and age-based disparities. *JAMA.* 2004;291(22):2723–2726. 8. Ferrell BR, Temel JS, Temin S, et al. Integration of palliative care into standard oncology care: American Society of Clinical Oncology clinical practice guideline update. *J Clin Oncol.* 2017;35(1):96–112.
9. Adamson BJS, et al. Affordable Care Act (ACA) Medicaid expansion impact on racial disparities in time to cancer treatment. *J Clin Oncol.* 2019;37(18 suppl LBA1).
10. DeSantis CE, Miller KD, Goding Sauer A, Jemal A, Siegel RL. Cancer statistics for African Americans, 2019. *CA Cancer J Clin.* 2019;69(3):211–233.