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Letter to the Editor

*Both authors contributed equally as first authors .

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Author for correspondence:

Katie Fitzgerald Jones, Boston College School of Nursing, VA Boston Healthcare System, Boston, MA, USA. E-mail: k.fitzgerald1@gmail.com

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When treatment algorithms fail: A response to the development of a nomogram to determine the frequency of elevated risk for non-medical opioid use in cancer patients

Katie Fitzgerald Jones, B.S.N., M.S.N., A.P.N.^{1*} D, Zachary Sager, M.D.^{2,*} D, Richard E. Leiter, M.D., M.A.^{3,4} and Justin J. Sanders, M.D., M.Sc.^{3,4,5} D

¹Boston College School of Nursing, VA Boston Healthcare System, Boston, MA, USA; ²New England Geriatric Research Education and Clinical Center, VA Boston Healthcare System, Boston, MA, USA; ³Division of Adult Palliative Care, Department of Psychosocial Oncology and Palliative Care, Dana-Farber Cancer Institute and Brigham and Women's Hospital, Boston, MA, USA; ⁴Harvard Medical School, Boston, MA, USA and ⁵Ariadne Labs, Boston, MA, USA

We read the February 2021 article by Yennurajalingam et al. (2021) with great interest given the growing recognition that individuals with cancer remain at risk for opioid misuse and overdose (Tan et al., 2015). Caring for this patient population requires carefully balancing risks to manage cancer-related pain while keeping patients safe from the risk of potential overdose (Alyssa et al., 2020). The authors developed a nomogram to help identify patients at-risk for non-medical opioid use (NMOU) and include a patient's race as a risk factor (Yennurajalingam et al., 2021).

Recent publications caution against the use of race in such algorithms (Vyas et al., 2020). The nomogram in this article finds that a Black patient matched with a White patient for all other categories would be at elevated risk for NMOU (Yennurajalingam et al., 2021). Disappointingly, the authors neither reflect on why this may be true in their clinic setting nor mention structural or other forms of racism. While the authors correctly conceptualize race as a social variable with marital status and financial distress, we believe that inclusion of race is more likely to promote race-based disparities in opioid and pain care than it is to improve care. Furthermore, the inclusion of race and recommendations for future research of genetic factors for NMOU leaves room for the reader to incorrectly interpret race as a biologic factor rather than a sociopolitical one (Boyd et al., 2020).

Black Americans are less likely than White Americans to have their pain managed, both because clinicians are less likely to believe their reports of pain and because Black Americans face significant barriers to access pain medications (Meghani et al., 2012; Trawalter et al., 2012; Jefferson et al., 2019). Black patients may experience a high burden of chronic cancer pain, which is associated with higher unemployment, lower socioeconomic status, and inadequate insurance (Meghani and Chittams, 2015; Jiang et al., 2019). Additionally, Black patients are subjected to more burdensome opioid care such as more frequent required office visits and restricted refills, despite similar rates of opioid use disorder between Black and White patients (Becker et al., 2011). Finally, Black patients are less likely to be offered medical treatment for opioid use disorder and are more likely to die from an overdose (James and Jordan, 2018; Lagisetty et al., 2019). A treatment algorithm that includes race is likely to reinforce known inequities in pain and opioid care due to structural racism, provider implicit bias, and the false idea about biological differences in pain perception (Hoffman et al., 2016; Hirsh et al., 2020; Meghani et al., 2020).

The authors concede limitations to their nomogram, but not the likely harm that it perpetuates. Our field should prioritize creating decision-making and treatment algorithms that reduce bias, promote equity, and ultimately disrupt racism through antiracist action (Obermeyer et al., 2019). In the end, it is the journals themselves that bear responsibility of gatekeeping and vigilant adherence to the current standards for publishing on racial health inequities (Boyd et al., 2020).

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References

Alyssa AS, Thomas KO, Robert AS, et al. (2020) Bridging the gap among clinical practice guidelines for pain management in cancer and sickle cell disease. *Journal of the National Comprehensive Cancer Network* 18(4), 392–399. doi:10.6004/jnccn.2019.7379.



- Becker W, Starrels J, Heo M, et al. (2011) Racial differences in primary care opioid risk reduction strategies. Annals of Family Medicine 9(3), 219–225. doi:10.1370/afm.1242.
- Boyd R, Lindo E, Weeks L, et al. (2020) On racism: A new standard for publishing on racial health inequities. Health Affairs Blog. doi:10.1377/HBLOG20200630.939347.
- **Hirsh AT, Anastas TM, Miller MM, et al.** (2020) Patient race and opioid misuse history influence provider risk perceptions for future opioid-related problems. *American Psychologist* **75**(6), 784–795. doi:10.1037/amp0000636.
- Hoffman KM, Trawalter S, Axt JR, et al. (2016) Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. Proceedings of the National Academy of Sciences, 201516047. doi:10.1073/pnas.1516047113.
- James K and Jordan A (2018) The opioid crisis in black communities. *Journal of Law Medical Ethics* 46(2), 404–421. doi:10.1177/1073110518782949.
- Jefferson K, Quest T and Yeager KA (2019) Factors associated with black cancer patients' ability to obtain their opioid prescriptions at the pharmacy. *Journal of Palliative Medicine* 22(9), 1143–1148. doi:10.1089/jpm.2018.0536.
- Jiang C, Wang H, Wang Q, et al. (2019) Prevalence of chronic pain and highimpact chronic pain in cancer survivors in the United States. JAMA Oncology 5(8), 1224–1226. doi:10.1001/jamaoncol.2019.1439.
- Lagisetty PA, Ross R, Bohnert A, et al. (2019) Buprenorphine treatment divide by race/ethnicity and payment. JAMA Psychiatry 76(9), 979–981. doi:10.1001/jamapsychiatry.2019.0876.

- **Meghani SH and Chittams J** (2015) Controlling for socioeconomic status in pain disparities research: All-else-equal analysis when "all else" is not equal. *Pain Medicine* **16**(12), 2222–2225. doi:10.1111/pme.12829.
- Meghani SH, Byun E and Gallagher RM (2012) Time to take stock: A metaanalysis and systematic review of analgesic treatment disparities for pain in the United States. *Pain Medicine* 13(2), 150–174. doi:10.1111/j.1526-4637.2011.01310.x.
- Meghani SH, Rosa WE, Chittams J, et al. (2020) Both race and insurance type independently predict the selection of oral opioids prescribed to cancer outpatients. Pain Management Nursing 21(1), 65–71. doi:10.1016/j.pmn.2019.07.004.
- Obermeyer Z, Powers B, Vogeli C, et al. (2019) Algorithmic bias In health care: A path forward. *Health Affairs Blog.* doi:10.1377/HBLOG20191031.373615.
- Tan P, Barclay J and Blackhall L (2015) Do palliative care clinics screen for substance abuse and diversion? Results of a national survey. *Journal of Palliative Medicine* 18(9), 752–757. doi:10.1089/jpm.2015.0098.
- **Trawalter S, Hoffman KM and Waytz A** (2012) Racial bias in perceptions of others' pain. *PLoS One* 7(11), e48546. doi:10.1371/journal.pone.0048546.
- Vyas DA, Eisenstein LG and Jones DS (2020) Hidden in plain sight reconsidering the use of race correction in clinical algorithms. *New England Journal of Medicine* 383(9), 874–882. doi:10.1056/NEJMms2004740.
- Yennurajalingam S, Edwards T, Arthur J, et al. (2021) The development of a nomogram to determine the frequency of elevated risk for non-medical opioid use in cancer patients. Palliative Support Care 19(1), 3–10. doi:10.1017/ s1478951520000322.