Position Paper: AMWA Policy Calling for Ending Race-Based Algorithms in Medicine

Submitted for review by Anti Racism Committee 11/17//2022

Submit to the BOD 11/18/22 for BOD meeting agenda Dec, 2022

Authors: Madi Hernandez, JD/MPH student, Theresa Rohr-Kirchgraber, MD, AMWA President, on behalf of the Advocacy Committee; Jodi F. Abbott, MD, MSc, MGCM, Brianna Clark, DO, and Nicole P. Sandhu, MD, PhD on behalf of the Antiracism Committee

Clinical decision-making often includes race-based algorithms and guidelines despite race being a social construct rather than a biological or genetic determinant. Race-based algorithms are "diagnostic algorithms and practice guidelines that adjust or "correct" their outputs based on a patient's race or ethnicity." These algorithms reflect racialized practices within medicine that are not evidence-based and increase health inequities. Most importantly, race-based algorithms have led to preventable harm. Race-based algorithms are found in many medical specialties; examples include cardiology, nephrology, obstetrics, oncology, urology, and others.

In cardiology, the Heart Failure Risk Score assigns three additional points to "nonblack" patients. This algorithm assumes all Black patients to be at a lower risk for cardiac death, which could affect clinical outcomes. Additionally, the lack of comprehensive race and ethnicity data in some clinical risk calculators, such as the Atherosclerotic Cardiovascular Disease risk calculator, may underestimate cardiovascular risk among Asian, Asian American, and Pacific Islander patients. Timely access to specialty care and essential medical and other therapies are directly impacted by these calculators, leading to delayed care and poorer outcomes.

Race is also used in the calculation for estimated glomerular filtration rate (eGFR), based on the false premise that Black patients are more muscular and release more creatinine at baseline. This calculation can delay nephrology care for Black patients with poorer kidney function, which may in turn result in higher rates of end-stage kidney disease and death due to kidney failure.

The Black maternal health crisis has been exacerbated by the race-based Vaginal Birth after Cesarean (VBAC) Calculator. This race-based calculator was in use from 2009 until 2021 when the original authors, recognizing the harms of race-based constructs, created a race-free calculator which is now in use. Many women of color (Black & Latinx) were unable to exercise autonomy in their decision-making about a birth plan as a result of the use of the race-based VBAC calculator.

The list is long, including spirometry, bone densitometry, pediatric urinary tract infection risk, and many other clinical algorithms that rely on race-influenced rather than evidence-based practices, impacting clinical decisions. AMWA advocates that clinicians, hospitals, and health systems stop using race-based algorithms and rely on evidence, clinical experience and acumen, and shared decision-making. We call for the development of new evidence-based non-race centered clinical algorithms. AMWA also calls for medical school and residency curricula to discontinue teaching and incorporating race-based algorithms and to specifically teach the rationale behind abolishing race-based algorithms. We also call for continuing medical education, physician certification processes, and performance and payment systems to recognize the harms caused by the use of race-based algorithms and to support clinical-decision

making based on biological risk factors. AMWA further calls for funded research to evaluate the scope of harm caused by the use of race-based algorithms in clinical decision-making.

References:

Eneanya ND, Yang W, Reese PP. Reconsidering the consequences of using race to estimate kidney function. *JAMA* 2019;322:113-114.

Grobman WA, Sandoval G, Rice MM, Bailit JL, Chauhan SP, Costantine MM, Gyamfi-Bannerman C, Metz TD, Parry S, Rouse DJ, Saade GR, Simhan HN, Thorp JM, Tita ATN, Longo M, Landon MB for the Eunice Kennedy Shriver National Institute of Child Health and Human Development Maternal-Fetal Medicine Units (MFMU) Network. Prediction of vaginal birth after cesarean in term gestations: A calculator without race and ethnicity. *Am J Obstet Gynecol.* 2021.https://www.ajog.org/article/S0002-9378(21)00587-1/pdf

Kaimal, AJ, Caughey, AB, Gandhi, M, Moniz, M, Ralston, S; Villavicencio, J, and the ACOG Committee on Clinical Practice Guidelines. Counseling Regarding Approach to Delivery After Cesarean and the Use of a Vaginal Birth After Cesarean Calculator. https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2021/12/counseling-regarding-approach-to-delivery-after-cesarean-and-the-use-of-a-vaginal-birth-after-cesarean-calculator [accessed 11/18/22]

Liu, G, Khan, S, Colangelo, L, Meza, D, Washko, G, Sporn, P, Jacobs, D, Dransfield, M, Carnethon, M, Kalhan, R, 2022. Comparing Racial Differences in Emphysema Prevalence Among Adults With Normal Spirometry: A Secondary Data Analysis of the CARDIA Lung Study. *Ann Intern Med*. [e-pub ahead of print]

Patel, A, Wang, M, Kartoun, U, Ng, K, Khera, A, 2021. Quantifying and Understanding the Higher Risk of Atherosclerotic Cardiovascular Disease Among South Asian Individuals. *Circulation*, 144(6), pp.410-422

Peterson PN, Rumsfeld JS, Liang L, et al. A validated risk score for in-hospital mortality in patients with heart failure from the American Heart Association Get with the Guidelines program. *Circ Cardiovasc Qual Outcomes* 2010;3:25-32

Rubashkin, N. Why Equitable Access to Vaginal Birth Requires Abolition of Race-Based Medicine. *AMA J Ethics.* 2022;24(3):E233-238. doi: 10.1001/amajethics.2022.233.

Vyas, D. A., Eisenstein, L. G., & Jones, D. S. (2020). Hidden in plain sight — reconsidering the use of race correction in clinical algorithms. *NEJM*, *383*(9), 874–882. https://doi.org/10.1056/nejmms2004740

Wright JL, Davis WS, Joseph MM, et al. Eliminating Race-Based Medicine. *Pediatrics*. 2022;150(1):e2022057998