

The effects of eliminating race-based adjustments in estimates of kidney function

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An ongoing debate is focused on race-based algorithms in medicine—such as an adjustment for Black race in equations that estimate individuals' kidney function. A study appearing in an upcoming issue of *JASN* examines the impact of dropping this race adjustment on patient care.

Assessing individuals' kidney function plays an important role in screening for and treating kidney diseases, and current methods primarily rely on estimating kidney function, what's known as a patient's estimated glomerular filtration rate (eGFR), from the serum creatinine level. The most commonly used eGFR equation includes an adjustment for Black versus non-Black race, resulting in higher eGFR values for a Black patient compared with a non-Black patient. Recognizing that race is a social and not a biological construct, however, several healthcare institutions no longer report eGFR with an adjustment for Black race, and ASN and the National Kidney Foundation have recently endorsed the idea that race modifiers should not be included in equations to estimate kidney function.

A team led by Vishal Duggal, MD and Manjula

Kurella Tamura, MD, MPH (VA Palo Alto Health Care System and Stanford University) set out to examine the impact of dropping the race adjustment in eGFR equations on [clinical care](#).

The researchers estimated the prevalence of chronic [kidney disease](#) if race adjustments were removed from eGFR equations in two national samples: National Health and Nutrition Examination Survey (NHANES) and the Veterans Affairs (VA) Health Care System. They also assessed the potential clinical impact on medication prescribing and kidney failure predictions in the VA group.

The investigators found that the estimated prevalence of chronic kidney disease among Black adults would double (from 5.2% to 10.6% in NHANES and from 12.4% to 21.6% in the VA) if race adjustments were eliminated. Widespread adoption of eGFR without a race adjustment could lead to large changes in the use of medications that require dose adjustment for [kidney function](#). For example, in the VA, between 6 and 41% of Black patients who use medications to treat diabetes and heart disease were reclassified to a lower eGFR level for which dose reduction or discontinuation is recommended). Eliminating the eGFR race adjustment did not negatively affect the accuracy of kidney failure predictions.

The findings suggest that eliminating race adjustments of eGFR could lead to sizable changes in medication prescribing practices for Black adults. "This is a conversation that is long overdue. The focus has rightly been on the ways in which race adjustment might disadvantage Black patients, but on the other hand, simply dropping race adjustment and leaving it at that may result in unintended consequences, such as less use of first line treatments for diabetes and diabetic [kidney disease](#)," Dr. Kurella Tamura cautioned. "The fact that there would be potentially large changes in medication prescribing is not an argument for keeping the [race](#) adjustment. Rather, it's a reminder

that small changes in GFR estimates can have large effects at the population level. Estimates of GFR are less precise than we often assume them to be."

More information: Vishal Duggal et al, National Estimates of CKD Prevalence and Potential Impact of Estimating Glomerular Filtration Rate Without Race, *Journal of the American Society of Nephrology* (2021). [DOI: 10.1681/ASN.2020121780](https://doi.org/10.1681/ASN.2020121780)

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