The art of medicine

Abolish race correction

Several years ago my daughter sent me an alarming text. She copied the results of her routine blood work and wrote, "Look at eGFR!". Under the estimated glomerular filtration rate (eGFR) were listed two numbers—one for non-African Americans and a higher one for African Americans. I was floored. Did this automatic adjustment mean the doctor interpreted my daughter's eGFR differently based simply on her racial identity? The test's categories themselves made no biological sense. "African American", like all racialised populations, is a socially constructed grouping. In the USA, individuals with any amount of discernible African ancestry fit the definition—irrespective of the rest of their ancestral backgrounds. Although my daughter and I identify solely as Black, my mother was a Black Jamaican and my father was the son of white Welsh and German immigrants to the USA. The eGFR disregarded the fabricated nature of the racial distinction it made in calculating kidney function.

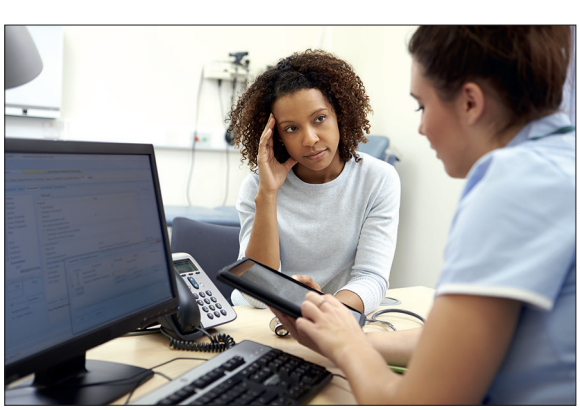
I later learned that eGFR race "correction" stems from study findings that participants who self-reported as Black, on average, released more creatinine than white participants for a given kidney function, which historically was attributed to Black people's assumed higher muscle mass. Recent studies have challenged the muscle-mass hypothesis, but the upward adjustment for all Black patients remains embedded in eGFR calculations. Whatever the flawed rationale, there must be a better way to measure kidney function accurately than by using race—a social classification whose delineations change across time, geography, and political priorities.

Yet misguided ideas about race continue to feature in medicine. I was also dismayed when data on COVID-19 cases and deaths revealed staggering—and strikingly similar—racial disparities in the USA and the UK. As of Dec 10, 2020, the age-adjusted US mortality rates for COVID-19 for Black, Latinx, and Indigenous people were more than 2·7 times higher than for white people. The greater COVID-19 burden on these populations is not surprising: it stems from structural racism that impaired their health before the pandemic—eg, disproportionate exposure to unhealthy food, environmental toxins, shoddy housing, inadequate health care, and stress from racial discrimination—and forced them into risky front-line jobs with greater exposure to infection. Yet some researchers speculated that these unequal outcomes might be caused by Black people's innate susceptibility—potentially resuscitating the same false racial concepts that underlie race correction.

My 2011 book, *Fatal Invention: How Science, Politics, and Big Business Re-create Race in the Twenty-first Century*, challenged the resurgence of biological concepts of race in genomics, biomedical research, and biotechnologies. As I wrote: "the delusion that race is a biological inheritance rather than a political relationship leads plenty of intelligent people to make the most ludicrous statements about Black biological traits". Since then, I have warned dozens of audiences about the dangerous persistence of this racial ideology. Yet I have encountered resistance from many doctors, who tend to defend their use of race by saying it's only part of a nuanced evaluation of many factors meant to produce more accurate diagnoses and therapies. But the eGFR race correction isn't nuanced at all—it's an automatic, across-the-board adjustment. It asserts that Black people, as a race, are biologically distinguishable from all others.

When I explored the matter further, I discovered that race-based adjustments are routine in certain diagnostic algorithms used in hospitals and clinics in the USA. And guidelines for treating hypertension issued by the American College of Cardiology and the UK National Institute for Health and Care Excellence distinguish Black from non-Black patients. Pondering the opposition between my alarm at race correction and some doctors' embrace of it sheds light on the bigger problems with race-based medicine.

First, race correction shows a failure to understand the meaning of race and its connection to racism. Doctors who adjust for race do not see themselves as racist: indeed, they may believe they are improving the health of communities of colour by taking race into account. They distinguish their use of biological race from that of doctors during the slavery or eugenics eras on grounds of their good intentions. But this is a mischaracterisation of the relationship between racism and racial classifications. Race is not a natural grouping that is misused by bigoted laypeople but used beneficially by unbiased doctors. Race was invented in order to implement racism. The idea that human beings are naturally divided into biologically distinct races was developed in 18th-century scientific justifications for European conquest, dispossession, and enslavement of other peoples. In the 19th century, US doctors promoted the racial concept of disease to legitimise



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slavery as based on innate distinctions rather than on white supremacy. Anti-racism in medicine therefore requires more than weeding out bias in the minds of individual physicians; it requires ending how medicine is structured to promote racist ideas, policies, and practices.

Second, race correction shows a failure to recognise race-based medicine's harms. In the case of eGFR, the automatic upward adjustment for Black patients has serious implications: the higher estimate of kidney function can miss diagnoses and delay referrals to both specialty care and kidney transplantation. I marvel that doctors aren't worried that race correction might contribute to African Americans' higher rate of end-stage kidney disease. The USA is also grappling with the fallout from race-based pain treatment. Recent studies show that doctors routinely undertreat Black patients for pain on the basis of awful stereotypes about Black people's bodies, such as the belief that Black people have thicker skin, less sensitive nerve endings, and greater propensity for drug use. There are numerous other examples of misdiagnosis, neglect, and mistreatment stemming from treating patients by race. These harms outweigh any extra precision presumably gleaned from correcting for race—precision that has failed to close the appalling gaps in health between white and non-white people.

Third, the persistence of race correction shows an unwillingness from some in medicine to change. Why have these corrections remained part of medical calibrations since the slavery era, surviving seismic changes in medical knowledge, technology, and ethics? Despite promises that genomic testing would erase the need to rely on race, racial thinking has persisted even in the development of precision medicine. By continuing to incorporate racial categories, efforts to make medicine seem more tailored could actually make it cruder. Doctors often deflect criticism from outsiders like me by claiming their expertise makes them the final arbiters of good medical practice. While it is true that health professionals are experts in medicine, they have much to learn about race and racism.

Historically, the medical profession's assertions of expertise on innate racial differences have been disastrous. During the 1850s, US physician Samuel Cartwright contended that Black people had lower lung capacity than white people and were therefore healthy only when enslaved. From 1932 to 1972, doctors involved in the Tuskegee Study of Untreated Syphilis in the Negro Male, conducted by the US Public Health Service, lied to hundreds of Black sharecroppers about their disease status and denied them available treatment in order to investigate assumed racial differences in syphilis. In the 1930s, the British military exposed Indian soldiers to mustard gas in Rawalpindi, now in Pakistan, to find out if the chemical caused more severe burns on "Indian" skin than on "British" skin. And in the 1980s, the racialised "crack baby" discourse, since discredited by better biomedical studies, turned the public health problem of prenatal substance use into a crime, led to the prosecutions of women, and bolstered the racist war on drugs that helped to fuel mass incarceration in the USA. This track record suggests the medical profession should be humble when it comes to incorporating race into their diagnoses and therapies.

Recent rumblings within US medicine offer hope for wide-scale change. In the past 4 years, collaborations of medical students and other health professionals have demanded reconsideration of race reporting in the eGFR calculation at Beth Israel Deaconess Medical Center, Mass General Brigham, Mount Sinai Health System, Zuckerberg San Francisco General Hospital, University of Washington Medicine, and Vanderbilt University Medical Center and have met with considerable success. In 2020, four prominent members of the US Congress requested that the federal Agency for Healthcare Research and Quality call for a "review of the use of race-based clinical algorithms in standard medical practice". These efforts have been accompanied by a growing movement to transform medical education to root out false biological concepts of race and to train future doctors to be structurally competent by taking into account the social, economic, and political factors, including structural racism, that affect patients' health and drive unequal outcomes.

The case for removing race from eGFR estimates calls for immediate action. Ending eGFR race correction can lead to scrutinising built-in race adjustments in other clinical calculations, such as risk assessment tools for cardiovascular disease, breast cancer, and bone fractures, spirometry tests for lung function, and treatment guidelines for hypertension—all of which can steer Black patients away from medical care. Although social scientists like me can help to explain the problem with race correction in medicine, it will take the medical profession to abolish it. Entities that influence medical practice guidelines should investigate all race-adjusted protocols and propose better ways of diagnosing and treating patients.

The uprisings for Black lives in 2020 sparked unprecedented support for abolishing the practices that have long upheld an unjust racial order. The need for anti-racist scrutiny and change in medicine is urgent. Abolishing race correction can be a step towards ending race-based medicine altogether—clearing the way for doctors to determine medical risk more accurately, treat their patients as equal human beings, and address the structural inequities that produce intolerable health disparities. In this way, new anti-racist medical standards that dispense with race correction can be part of the broader struggles to end racism in medicine and to create a healthier and more equal world for everyone.

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