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I Am a Racially Profiling Doctor

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In practicing medicine, I am not colorblind. I always take note of my patient's race. So do many of my colleagues. We do it because certain diseases and treatment responses cluster by ethnicity. Recognizing these patterns can help us diagnose disease more efficiently and prescribe medications more effectively. When it comes to practicing medicine, stereotyping often works.

But to a growing number of critics, this statement is viewed as a shocking admission of prejudice. After all, shouldn't all patients be treated equally, regardless of the color of their skin? The controversy came to a boil last May in The New England Journal of Medicine. The journal published a study revealing that enalapril, a standard treatment for chronic heart failure, was less helpful to blacks than to whites. Researchers found that significantly more black patients

treated with enalapril ended up hospitalized. A companion study examined carvedilol, a beta blocker; the results indicated that the drug was equally beneficial to both races.

These clinically important studies were accompanied, however, by an essay titled ''Racial Profiling in Medical Research.'' Robert S. Schwartz, a deputy editor at the journal, wrote that prescribing medication by taking race into account was a form of ''race-based medicine'' that was both morally and scientifically wrong. ''Race is not only imprecise but also of no proven value in treating an individual patient,'' Schwartz wrote. ''Tax-supported trolling . . . to find racial distinctions in human biology must end.''

Responding to Schwartz's essay in The Chronicle of Higher Education, other doctors voiced their support. ''It's not valid science,'' charged Richard S. Cooper, a hypertension expert at Loyola Medical School. ''I challenge any member of our species to show where this kind of analysis has come up with something useful.''

But the enalapril researchers were doing something useful. Their study informed thousands of doctors that, when it came to their black patients, one drug was more likely to be effective than another. The study may have saved some lives. What's more useful than that?

Almost every day at the Washington drug clinic where I work as a psychiatrist, race plays a useful diagnostic role. When I prescribe Prozac to a patient who is African-American, I start at a lower dose, 5 or 10 milligrams instead of the usual 10-to-20 milligram dose. I do this in part because clinical experience and pharmacological research show that blacks metabolize antidepressants more slowly than Caucasians and Asians. As a result, levels of the medication can build up and make side effects more likely. To be sure, not every African-American is a slow metabolizer of antidepressants; only 40 percent are. But the

risk of provoking side effects like nausea, insomnia or fuzzy-headedness in a depressed person -- someone already terribly demoralized who may have been reluctant to take medication in the first place -- is to worsen the patient's distress and increase the chances that he will flush the pills down the toilet. So I start all black patients with a lower dose, then take it from there.

In my drug-treatment clinic, where almost all of the patients use heroin by injection, a substantial number of them have hepatitis C, an infectious blood-borne virus that now accounts for 40 percent of all chronic liver disease. The standard treatment for active hepatitis C is an antiviral-drug combination of alpha interferon and ribavirin. But for some as yet undiscovered reason, African-Americans do not respond as well as whites to this regimen. In white patients, the double therapy reduces the amount of virus in the blood by over 90 percent after six months of treatment. In blacks, the reduction is only 50 percent. As a result, my black patients with hepatitis C must be given a considerably less reassuring prognosis than my white patients.

Without a doubt, there are many medical situations in which race is irrelevant. In an operation to repair a broken leg, for example, a patient's race doesn't matter. But there are countless situations in which the race factor should be considered. My colleague Ronald W. Dworkin, an anesthesiologist in a Baltimore-area hospital, takes race into account when performing one of his most important activities: intubation, the placement of a breathing tube down a patient's windpipe. During intubation, he says, black patients tend to salivate heavily, which can cause airway complications. As a precautionary measure, Dworkin gives many of his black patients a drying agent. ''Not every black person fits this observation,'' he concedes, ''but there is sufficient empirical evidence to make every anesthesiologist keep this danger in the back of his or her mind.'' The day I spoke with him, Dworkin attended a hysterectomy in a

middle-aged Asian woman. ''Asians tend to have a greater sensitivity to narcotics,'' he says, ''so we always start with lower doses. They run the risk of apnea'' -- the cessation of breathing -- if we do not.''

Could doctors make a diagnosis for and treat a patient properly if they did not know his race? ''Most of the time,'' says Jerome P. Kassirer, a professor of medicine at Yale and Tufts. ''But knowing that detail early on helps me make educated guesses more efficiently.''

Kassirer, the former editor of The New England Journal of Medicine, is a renowned diagnostician. He is legendary among trainees for what he can tell about a case from just a few facts. He gave an example from a recent morning report, the daily session in which young doctors describe to senior physicians the most vexing cases admitted to the hospital the previous night. During one report, the resident began: ''The patient is a 45-year-old Asian male who came to the emergency room complaining of 'feeling weak and wobbly in my legs' after drinking two bottles of beer.'' Kassirer stopped her right there. ''Here's what I infer from that information,'' he said. ''First, we know that sudden weakness can be caused by a low concentration of potassium in the blood, and we know that Asian males have an unusual propensity for a rare condition in which low potassium causes temporary paralysis. We know that these paralytic attacks are sometimes brought on by alcohol.''

Of course, the patient could have been suffering from some other muscular or neurological disease, and Kassirer instructed the trainees to consider those as well. But in this case the patient's potassium was low, and the diagnosis was correct -- and confirmed within 24 hours by simply observing the patient. Thanks to racial profiling, the Asian patient was spared an uncomfortable and costly work-up -- not to mention the worry that he might have something like Lou Gehrig's disease.

''Rather than casting our net broadly, doctors quickly focus on a problem by recognizing patterns that have clinical significance,'' Kassirer says. ''Typically, the clinician generates an initial hypothesis merely from a patient's age, sex, appearance, presenting complaints -- and race.''

All of these examples fly in the face of what we are increasingly told about race and biology: namely, that the two have nothing to do with each other. When the preliminary sequence of the human genome was announced in June 2000, many felt the verdict was conclusive. Race, it was said, was an arbitrary, nefarious biological fiction. Scholars heralded the finding of the Human Genome Project that 99.9 percent of the human genetic complement is the same in everyone, regardless of race, as proof that race is biologically meaningless. Some prominent scientists said the same. J. Craig Venter, the geneticist whose company played a key role in mapping the human genome, proclaimed, ''There is no basis in the genetic code for race.''

What does it really mean, though, to say that 99.9 percent of our content is the same? In practical terms it means that the DNA of any two people will differ in one out of every 1,000 nucleotides, the building blocks of individual genes. With more than three billion nucleotides in the human genome, about three million nucleotides will differ among individuals. This is hardly a small change; after all, mutation of a single one can cause the gene within which it is embedded to produce an altered protein or enzyme. It may seem counterintuitive, but the 0.1 percent of human genetic variation is a medically meaningful fact.

Not surprisingly, many human genetic variations tend to cluster by racial groups -- that is, by people whose ancestors came from a particular geographic region. Skin color itself is not what is at issue -- it's the evolutionary history indicated by skin color. In Africa, for example, the genetic variant for sickle cell anemia cropped up at some point in the gene pool and was passed on to descendants; as a result, the disease is more common among blacks than whites. Similarly, Caucasians are far more likely to carry the gene mutations that cause multiple sclerosis and cystic fibrosis.

Admittedly, race is a rough marker. A black American may have dark skin -- but her genes may well be a complex mix of ancestors from West Africa, Europe and Asia. No serious scientist, in fact, believes that genetically pure populations exist. Yet an imprecise clue is better than no clue at all.

Jay N. Cohn, a professor of medicine at the University of Minnesota, explains that skin color and other physical features can be a diagnostic surrogate for the genetic differences that influence disease and response to treatment. ''Physical appearance, including skin color, is now the only way to distinguish populations for study,'' he says. ''You'd have to use a blindfold to keep a physician from paying attention to obvious differences that may and should influence diagnosis and treatment!'' Lonnie Fuller, a professor emeritus at Morehouse School of Medicine, says: ''Drugs can stay in the body longer when their metabolism in the liver is slower. We know this can vary by race, and doctors should keep it in mind.''

Recognizing that our one-size-fits-all approach to medicine has serious flaws, some doctors are urging research into the development of racially targeted drugs. In March 2001, the Food and Drug Administration allowed the testing of a

drug called BiDil in about 600 black subjects who will participate in the African-American Heart Failure Trial, the largest clinical trial ever to focus exclusively on African-Americans.

In previous studies including both white and black patients, BiDil provided a selective benefit for the black subjects. White subjects did no better on average than those given a placebo. The leading explanation for this disparity revolves around the molecule nitric oxide, a chemical messenger that helps regulate the constriction of blood vessels, an important mechanical dynamic in the control of blood pressure. High blood pressure contributes to and worsens heart failure because it makes the heart pump harder to overcome peripheral resistance in the arteries. BiDil acts by dilating blood vessels and replenishing local stores of nitric oxide. For unexplained reasons, blacks are more likely than whites to have nitric oxide insufficiency.

To be sure, a small percentage of blacks with high blood pressure do not have low nitric oxide activity. And the fact that BiDil's intended use relies on a crude predictor of drug response -- a poor man's clue'' is how one scientist described race -- is something its developers at the University of Minnesota School of Medicine readily acknowledge. Nevertheless, in the sometimes cloudy world of medicine, a poor man's clue is all you've got. Perhaps that's why members of the Congressional Black Caucus voiced support for the clinical trial. So did the Association of Black Cardiologists, which is helping recruit patients for the trial. B. Waine Kong, the organization's head officer, put it simply: ''It is in the name of science that we participate.''

Doctors look forward to the day when they can, in good conscience, be colorblind. Researchers predict that it will eventually be common practice for doctors to generate a ''genomic profile'' of every patient -- a precise analysis of a person's genetic makeup -- so that decisions about therapies can be based on

subtle characteristics of the patient's enzyme and receptor biology. At that point, racial profiling by doctors won't be necessary. Until then, however, group identity at least offers a starting point.

A high level of sensitivity about race is understandable in view of eugenics programs in early 20th-century America and ethnic cleansing abroad. The memory of the Tuskegee syphilis study, in which hundreds of rural blacks were never told they had the disease nor offered penicillin for it, still haunts the U.S. Public Health Service, the agency that conducted the study. Other scholars have expressed the worry that genetic differences among races could become the only explanation for the health disparities among them -- allowing interest in examining social and economic factors to dwindle.

Indeed, the public seems to have embraced the idea of colorblind medicine. ''In the last decade, many Americans have urged that the concept of race be abandoned, purged from our public discourse, rooted out of medicine and exiled from science,'' writes Troy Duster, a sociologist at N.Y.U.

But in this case, the public is wrong. As rough a biological classification as race may be, doctors must not be blind to its clinical implications. So much of medicine is a guessing game -- and race sometimes provides an invaluable clue. As citizens, we can celebrate our genetic similarity as evidence of our spiritual kinship. As doctors and patients, though, we must realize that it is not in patients' best interests to deny the reality of differences.

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