

Study finds race-neutral testing could have provided access to life-saving lung transplants for more Black patients

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Race-neutral lung function interpretation could increase access to lung transplants for Black patients with respiratory disease, according to new research published in the *Annals of the American Thoracic Society* online ahead of print.

In "Race-Specific Interpretation of Spirometry: Impact on the Lung Allocation Score," lead researcher J. Henry Brems, MD, MBE, of the Johns Hopkins School of Medicine, and colleagues investigated how race-specific versus race-neutral equations alter the lung allocation score (LAS) and the priority for [lung transplant](#) across races. The lung allocation score determines which patients get priority on the lung transplant listing.

A group of 8,982 patients were selected from the United Network for Organ Sharing database and the LAS calculated for each patient from both a race-specific and race-neutral approach. Dr. Brems noted "that a race-specific approach to lung function interpretation has the potential to systematically bias care to the disadvantage of Black patients with respiratory disease."

He added, "Our results support the recent shift in ATS recommendations to use race-neutral equations as a way to advance the equitable care of respiratory disease." In an article announcing the American Thoracic Society's [official statement on race, ethnicity and pulmonary function test interpretation](#), the lead author of the statement noted, "Reviews of clinical algorithms throughout medicine in the past decade have spawned concerns about bias and harm when race is used as a variable and has led to revisions of these algorithms."

The degree of harm that may result from bias is critical to examine as lives literally hang in the balance. Lung transplantation is a life-saving option for people with end-stage lung disease. Candidates for a transplant are assigned an LAS score, which is based on—among other

things—age, oxygen requirement and lung function test results. A high LAS score will give a patient a higher priority on the transplant list.

In this latest study, the researchers noted, "Compared to a race-neutral approach, a race-specific approach resulted in a lower LAS for Black patients and higher LAS for white patients, which may have contributed to racially biased allocation of lung transplants."

As medicine shifts to a race-neutral approach in disease evaluation and management, more studies will be needed to understand the impact on patient care. "We may need to develop alternative or more holistic approaches to replace current threshold-based decisions, which are used for some [diagnostic criteria](#), treatments, referrals, [disability benefits](#), and even employment eligibility for some occupations," said Dr. Brems.

More information: Race-specific Interpretation of Spirometry: Impact on the Lung Allocation Score, *Annals of the American Thoracic Society* (2023).

Provided by American Thoracic Society

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