



Study: Black men may be less likely to receive heart transplant than white men, women

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Khadijah Breathett, MD, MS, FACC, FAHA, FHFSA

INDIANAPOLIS – Black patients in need of a heart transplant may be less likely to receive one than white patients, according to a new study led by Indiana University School of Medicine researchers.

The study, [recently published in JAMA](#), is the first to analyze data about organ acceptance for Black and white patients on the waiting list for a heart transplant. The team used information from the United Network for Organ Sharing about patients listed for a heart transplant in the United States from October 2018 to March 2023. Of the 14,890 heart transplant candidates, about 31% were non-Hispanic Black race, 69% were non-Hispanic White race, and about 26% were women.

Researchers found the odds of acceptance were higher for white candidates than Black candidates. Odds were also higher for women than for men.

“Black patients have a two to three times greater risk of developing heart failure than white patients, and they have the highest risk of dying from heart failure compared with all other racial and ethnic groups,” said [Khadijah Breathett, MD, MS, FACC, FAHA, FHFSA](#), associate professor of medicine at the IU School of Medicine and lead author of the study. “But Black patients are less likely to be referred for a heart transplant, approved for transplant and receive a transplant after listing. The intersection of race and gender often worsens access for Black women.”

Breathett, who is also a physician scientist at the IU School of Medicine's [Krannert Cardiovascular Research Center](#) and a cardiologist at Indiana University Health, said when a patient is listed for a heart transplant, a computer algorithm ranks and matches candidates and donors according to specific characteristics, such as blood type, severity of illness, urgency for transplant and location. Designated team members at a transplant center review the data and decide whether to accept the organ donation.

"Since the algorithm for matching patients with donors is changing across for all organs, this was a prime time to better understand whether transplant team decisions to accept a donated organ varied by patient race and gender," she said. "We wanted to understand how the process of receiving a transplant after listing varied by race and gender, and the combination of the two, so that steps can be taken to make that process more equitable."

Breathett said after the algorithm, clinicians need to quickly make the final determination of whether the donated heart is good enough for the patient. They consider the physiology of the heart, different diseases the donor had, cause of death, size of the patient compared to size of the donor, and distance between their hospitals.

"It is hard work to make sure that the decision is the right one," Breathett said. "You do not want to accept a donation that will not be beneficial for the patient. Our study took the step of only including 'good hearts,' or hearts that were for the most part eventually accepted by some team. Our discovery is concerning. Overall, we found that the decision to accept a 'good heart' requires many more matches prior to acceptance for Black patients than for white patients and for men than for women."

Breathett also leads a [national, randomized cluster trial and implementation science study](#) to potentially make the approval process more equitable. She hopes the results from both studies will help address structural racism in health care.

"Structural racism contributes to increased social determinants of health and less access to quality and timely care," Breathett said. "It is being increasingly recognized that structural racism contributes to biological changes such as increased inflammation and telomere shortening, which accelerates and increases severity of disease."

In the future, Breathett said she hopes to see hospitals and organ transplant centers look at their own data concerning transplants and patient race and gender and provide incentives for making changes that lead to more equitable care.

"I doubt it is intentional, but this study may demonstrate how bias leads to unfair decision-making that may mean life or death based upon race and gender," Breathett said. "We should provide centers with their data and incentivize them for doing the right thing. Evidence-based bias training and anti-racism training are also important for centers to complete."

Other study authors from IU include Shannon Knapp, PhD, and [Onyedika Ilonze, MD](#).

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Media Contact

IU School of Medicine

Rory Appleton

P: [317-671-3114](tel:317-671-3114)

E: rapplet@iu.edu

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