Adeseye and Ghanta Commentary

## Commentary: Disparities in use of durable mechanical circulatory support device: Does ethnicity tilt the balance?



Ademola Adeseye, MD, and Ravi K. Ghanta, MD

From the Division of Cardiothoracic Surgery, Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Houston, Tex.

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Address for reprints: Ravi K. Ghanta, MD, Division of Cardiothoracic Surgery, Michael E. DeBakey Department of Surgery, Baylor College of Medicine, One Baylor Plaza, MC 390, Houston, TX 77030 (E-mail: Ravi. ghanta@bcm.edu).

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The advent of durable mechanical circulatory support device (MCSD) therapy was a game changer in the management of patients with advanced heart failure. Whether as a bridge to transplant or as destination therapy, studies have shown that MCSD therapy improves survival in patients with advanced heart failure. As with all novel therapies that require additional resources, the question of equal access inevitably arises. Equal access to optimal care is a fundamental tenet of our health care system. However, multiple studies have demonstrated the existence of geographic and racial disparities in access to cardiac surgical procedures and heart failure outcomes. 2-5

In this study, Bourque and colleagues<sup>6</sup> analyze a national cohort to evaluate regional and racial disparities in use of MCSD. They found that MCSD use has increased overall and differences in use vary based on geography and race. Their study methodology notably makes use of multiple large data sources, including Medicare-linked Interagency Registry for Mechanically Assisted Circulatory Support patient data and Centers for the Disease Control Wide-ranging Online Data for Epidemiologic Research database. Most surprisingly, this study observed that minority patients had greater rates of MCSD use than white patients, which was consistent through virtually all United Network for Organ Sharing regions. Although this represents the best available data, one important caveat is the denominator used to determine MCSD rates. Rather than total population, the population of true interest is the heart failure population. Heart failure rates differ between race and geography. Consequently, greater MCSD rates in non-white patients may be secondary to greater rates of heart failure in this subcohort. Another important consideration is the rate of destination therapy versus heart transplantation. It is unclear whether minority patients have a greater MCSD implantation rate because they are not being considered for heart transplant.



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## Central Message

Although geographic and racial disparities remain in virtually all fields of medicine and surgery, MCSD use has increased in the United States in both minority and white patients.

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Another important finding from this study is the overall use of MCSD has increased throughout the United States. Across all 11 United Network for Organ Sharing regions, rate of annual MCSD implantation increased from 5.14 MCSD/million population to 13.97 MCSD/million population—a near tripling of MCSD use. Clearly this game-changing therapeutic strategy for the management of patients with advanced heart failure is being increasingly used. Although geographic and racial disparities remain in virtually all fields of medicine and surgery, MCSD use has increased in the United States in both minority and white patients. Further studies to investigate additional disparities in MCSD and heart transplantation access are warranted.

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