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See Article page 1839.

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Commentary: The only constant is change: Understanding the changes in the new heart allocation system

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CENTRAL MESSAGE

A change in UNOS heart allocation appears to be a step in the right direction. Further long-term and subgroup analysis remains necessary to ensure equal and fair allocation of a finite resource.

The 2018 change in the United Network for Organ Sharing heart allocation system emphasizes balance through a 6-tiered, weighted system. This change was motivated by overcrowding at the highest acuity levels in the previous system and subsequent inequities in disadvantaged groups such as adult congenital heart disease and restrictive cardiomyopathy as well as potential recipients who were ineligible for ventricular assist devices (VADs).[1]

Estep and colleagues[2] reviewed the current data and publications analyzing the influence of these 2018 changes. As with any change, it is important to observe and quantify the influence of those changes to determine whether they have had the desired effect and ensure that there are no major negative or unpredicted outcomes. They address the groups most influenced by those changes and offer guidance to programs navigating novel management strategies to optimize patient outcomes.

Finding balance between allocation of organs to the sickest patients before they die while ensuring longevity in the post-transplant recipient is a challenge the weighted system is designed to overcome. The highest tier is reserved for the sickest recipients, with the highest expected waitlist mortality, whereas the lowest tier represents the reciprocal. Significant findings discovered in these early analyses show that donor hearts are traveling further, with longer ischemic times.[3] Recipients also have shorter waitlist times but have worse hemodynamic status and increased use of temporary support

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at time of transplant.[3,4] Meanwhile, use of durable VADs has significantly declined, with most being utilized for destination therapy, at a time that left VAD outcomes continue to improve.[4-6] Diseases at a survival disadvantage, including restrictive, congenital, hypertrophic, and amyloidosis now have a home in status 4 unless they meet criteria for a higher status. Although early outcomes within this group are acceptable, the authors admit that numbers remain small and require further subgroup analysis.[3]

Initial reports analyzing the first year within the change in allocation reveal that its intended influence may be realized. There may be unintended consequences as result of these changes. Sicker patients are getting hearts earlier, which is saving lives, but we must also ensure that posttransplant survival remains at least equivalent. The increased use of temporary assist devices with their necessary intensive care unit stay adds to the complex logistics of heart failure management. This increased use of temporary circulatory support devices brings a new set of unanticipated complications such as bloodstream infections. Additionally, the financial implications of retrieving organs from greater distances may become prohibitive in the ever-changing world of reimbursement. Another result of longer travel is longer ischemic times, which have been shown to be adversely related to posttransplant survival.[7] Ongoing observation with critical analysis remains necessary when evaluating the influence of the 2018 United Network for Organ Sharing heart allocation changes to better navigate the complexities of managing end stage heart failure and optimize patient care.

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