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Commentary: This heart will travel

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In this issue of the *Journal*, Ganapathi and colleagues¹ report on how the change in the heart allocation system has altered transplantation practice. This change in the allocation system was thoughtfully and carefully deliberated by the United Network for Organ Sharing (UNOS).² Indeed, after a lengthy period considering input from all stakeholders, an extensive review of data from the Scientific Registry of Transplant Recipients, and public comment, UNOS changed the allocation policy in 2018.³

As is the case when a very scarce resource—like donor hearts—undergoes a change in allocation, there are divergent opinions regarding whether the change is positive. The least controversial changes included a more standardized definition of cardiogenic shock and tightened time limitations for patients listed at highest status. The most controversial change was to broaden the geographic sharing of donor hearts. This controversy reflects the competing interests of listed patients in each transplantation center. Collectively, as professionals, we should have no argument with the concept of allocating a donor heart to the sickest patient, wherever that patient may be located.

Ganapathi and colleagues used the Scientific Registry of Transplant Recipients database, the gold standard for evaluating waitlist donor and recipient data. They divided the analysis into 2 cohorts, one before the allocation change from 2017 to 2018 and the other after the change from 2018 to 2019. The newer heart allocation system assigns higher status (status 1 or 2) to listed patients with nondischageable mechanical circulatory support (MCS), venoarterial extracorporeal membrane oxygenation

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CENTRAL MESSAGE

The change in heart allocation policy has resulted in greater use of temporary mechanical circulatory support and longer allograft ischemic times, with no change in 1-year posttransplantation outcomes.

(ECMO), and intra-aortic balloon pumps (IABPs). Of note, implantable, “durable” MCS pumps are now status 4—with a discretionary 30-day upgrade to status 3. Not surprisingly, the authors’ analysis showed a marked increase in the use of nondischageable MCS, ECMO, and IABPs along with a corresponding decrease in durable left ventricular assist devices as strategies to bridge patients to transplantation. The distance traveled by centers to procure allografts increased by 3-fold, and ischemic times for the cardiac allograft increased correspondingly. Most reassuring, however, were the findings of no significant change in individual center volume and 1-year posttransplantation survival.

My conclusions based on this analysis can be summarized as follows. First, it is early, and we are just beginning to receive small (nearly 5400 hearts in this analysis) bits of data to analyze the effects of change in heart allocation. Second, the UNOS heart allocation policy actually translates to a greater geographic sharing of organs. This observation is reassuring. Third, the changes in each transplantation center’s listing strategies are evident by the transition away from durable MCS to temporary forms of MCS and IABPs. Although the 1-year posttransplantation outcomes from this study appear unchanged, others propose that the increased use of temporary MCS and ECMO may adversely affect 1-year outcomes.⁴ We need long-term follow-up (5- and 10-year data) to ensure that we are not compromising outcomes with the

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greater use of temporary devices as our strategy to bridge our patients to transplantation.

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