

EDITORIAL COMMENT

A Global Challenge and a Global Opportunity for the Heart Failure Community*



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The only true voyage of discovery, the only fountain of Eternal Youth, would be not to visit strange lands but to possess other eyes, to behold the universe through the eyes of another, of a hundred others, to behold the hundred universes that each of them beholds, that each of them is.

—Marcel Proust¹

During the last decade, the cardiovascular community successfully placed a spotlight on outcomes after a hospitalization for acute heart failure (HF). Early data from the United States suggested that many HF readmissions were preventable and that improved transitional care could lead to both better outcomes for patients and cost savings for health care systems.² The Hospital Readmission Reduction Program was enacted in the United States in 2010 with the hope that hospital-based public reporting of HF readmissions and payment incentive programs would incentivize health systems to reduce both unwanted variation in HF care and preventable HF readmissions. Since then, nearly all U.S. hospitals have implemented HF quality initiatives focused on short-term outcomes. There

have been challenges. For one, there is a paucity of evidence around initiatives that can safely reduce HF readmissions. Additionally, hospital-based initiatives do not always impact other care domains, including home and clinic.³ There may be unintentional reductions in necessary HF readmissions that could increase mortality.^{4,5} Finally, the COVID-19 pandemic identified vulnerabilities of hospitals to fully deliver HF care during unanticipated stressors.⁶ Nevertheless, HF readmissions are now a foundational quality and outcome metric in the United States, and the HF community needs to continue its work in identifying ways to improve hospital-based and transitional HF care. One possibility is to look beyond the United States at how other countries perform in this domain.

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In this issue of the *Journal of the American College of Cardiology*, Foroutan et al⁷ provide a detailed assessment of postdischarge HF outcomes from around the world. The investigators performed a systematic meta-analysis of observational data published between 2010 and 2021 to assess for variation in outcomes (HF readmission rates and mortality) by country, and to explore the relationship between health care expenditures and outcomes. This comprehensive study includes data from 38 countries. For 30-day readmission rates, using data from 18 countries and >1.4 million hospitalizations, the pooled estimate was 13.2%, with the highest readmission rate in South Korea (28%), the lowest rate in Nigeria (1.5%), and the U.S. rate at 25%. There was similar variation in 30-day mortality rates and 1-year outcomes. As the investigators highlight, there was heterogeneity globally and between countries on the same continent. Notably, the observed heterogeneity was not associated with health care spending as

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measured using national gross domestic product and the proportion of gross domestic product spent on health care. The heterogeneity was also not associated with the country's Gini coefficient (a measure of income inequality), the competing risk of mortality, or the selected comorbid conditions.

The reported heterogeneity by country is not surprising. Not only are HF populations significantly different between countries (as also reported), but hospitalization for HF across countries reflects different health system structures with different capabilities, different thresholds for hospitalization, different lengths of stay, and different practices. Reporting practices, as captured in the systematic review, also likely included important differences and limitations. The fact that the investigators were unable to explain some of the observed heterogeneity with the available data, including on health care spending, leaves us with more questions than answers.

The challenge posed here for the HF and cardiovascular community is how are these data used? These data will surely be used for planning of global clinical trials to improve estimates of event rates by country, which will hopefully lead to more efficient trial planning. There is also an important opportunity to understand why such variation in outcomes exists across the globe. We need additional data using various research methods to identify best practices that are scalable and transferrable across health systems. We believe the data by Foroutan et al⁷ should encourage investigators to perform in-depth analyses that harness key differences in systems-based care. For example, prior cross-sectional research on high- and low-performers in other areas of cardiovascular care, such as faster door-to-balloon time for ST-segment elevation myocardial infarction, have identified actionable hospital-based strategies to improve care.⁸ There is sufficient variation across the globe to apply the principles of positive and negative deviance methods.

Ultimately, all countries need better tools to improve care for the high-risk population of patients hospitalized with HF. To us, these tools should

accomplish 4 main goals. First, they should allow better connection between patients/caregivers and health care teams. Much of HF care after discharge is siloed (eg, hospital discharge, transitional care services, and HF clinic) and we believe engagement with patients and caregivers to place them at the center of care is essential. Looking across countries with various levels of health integration may naturally show what approaches to postdischarge care seem to best promote health outcomes. Second, we need to improve access to HF therapies. This includes improving prescribing of evidence-based therapies for chronic HF at the time of hospitalization, but also before and after. We also know very little about real-world use and adherence of HF medications after discharge. Third, we need better methods of engagement that extend care beyond traditional health care settings to meet patients and their caregivers in the home. Current digital tools are ripe for implementation. Finally, we need new discovery of monitoring devices and HF therapeutics that improve our ability for early detection and treatment for signs/symptoms of recurrent HF. A global approach, uncovering best practices and integrating fresh perspectives, is most likely to accelerate our progress toward these goals and improve the outcomes of people with HF all over the world.

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