

## Editorial



# Understanding the Epidemiologic Profile and Predictors of Readmission of Heart Failure: Unveiling Opportunities for Improved Care

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► See the article “Etiologies and Predictors of 30-Day Readmission in Heart Failure: An Updated Analysis” in volume 5 on page 159.

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Heart failure (HF) is a significant and costly public health issue that poses challenges to patients, healthcare systems, and society.<sup>1)</sup> As the population ages and risk factors change, it is important to periodically reassess the epidemiologic profile of HF. By investigating the characteristics and factors associated with HF readmissions, we can gain valuable insights to improve patient outcomes, mitigate risks, and optimize healthcare resource utilization.<sup>2-4)</sup>

In the latest issue of the *International Journal of Heart Failure*, Jain et al.<sup>5)</sup> conducted a study to investigate the epidemiologic profile and predictors of readmission in HF patients using the 2019 National Readmission Database (NRD). The study included 48,971 HF patients and revealed that a significant proportion of them experienced a high readmission rate (21.2%) within 30 days, leading to patient morbidity and increased healthcare costs. The analysis showed that readmitted patients were younger, had a higher percentage of males, had a greater burden of comorbidities, lower socioeconomic status, and paradoxically higher resource utilization compared to non-readmitted patients.

Despite advancements in medical and device therapies in the HF management era, readmissions continue to be a significant issue, requiring further research to identify areas for improving patient outcomes. Unfortunately, when comparing the results to a previous study that used NRD data from 2010–2017 (with a 30-day readmission rate of 18%), there does not seem to be a significant improvement in the HF readmission rate, and the risk factors have remained unchanged.<sup>6)</sup> Understanding these factors can assist healthcare providers in identifying high-risk patients and implementing targeted interventions to reduce readmissions. The study also highlights the disparities in readmission rates based on socioeconomic status, with lower-income patients being more susceptible to readmissions. This emphasizes the need for targeted interventions and support systems for vulnerable populations, which can be achieved through societal and governmental efforts or research addressing the social determinants of cardiovascular disease.<sup>7)</sup> This will help improve their access to healthcare resources and reduce readmission rates.

Furthermore, Jain et al. also demonstrated that multiple etiologies contribute to readmissions in HF patients, including not only for HF aggravation or other cardiovascular events but also respiratory, infectious, and renal causes. The findings underscore the importance of address-

ing both cardiac and non-cardiac comorbidities in HF patients to reduce the risk of readmission. Physicians need to take a holistic approach to patient care, considering the management of other chronic conditions alongside HF.

Finally, with the introduction of SGLT2 inhibitors and ARNIs as new cornerstones in the HF treatment,<sup>8,9)</sup> along with the implementation of the four-pillar strategy and the use of heart transplantation and LVADs,<sup>8,9)</sup> it is expected that future studies will yield different results and offer new perspectives on HF management.

Overall, the study highlights the need for comprehensive strategies to reduce readmissions in HF patients. By identifying high-risk predictors and addressing both cardiac and non-cardiac comorbidities, healthcare providers can improve patient outcomes, reduce morbidity, and optimize healthcare resource utilization. Future research should focus on evaluating the effectiveness of interventions targeted at these high-risk factors to further enhance patient care in HF management.

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#### Conflict of Interest

The author has no financial conflicts of interest.

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