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ORIGINAL INVESTIGATIONS

Influence of Sacubitril/Valsartan (LCZ696) on 30-Day Readmission After Heart Failure Hospitalization

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CME Objective for This Article: After reading this article, the reader should be able to: 1) define the burden of readmissions after heart failure hospitalization in a contemporary population with heart failure and reduced ejection fraction; 2) explain the rationale for targeting early readmissions after heart failure hospitalization as a quality metric; and 3) compare the impact of different pharmacologic therapies for heart failure on rates of readmission after heart failure hospitalization.

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ABSTRACT

BACKGROUND Patients with heart failure (HF) are at high risk for hospital readmission in the first 30 days following HF hospitalization.

OBJECTIVES This study sought to determine if treatment with sacubitril/valsartan (LCZ696) reduces rates of hospital readmission at 30-days following HF hospitalization compared with enalapril.

METHODS We assessed the risk of 30-day readmission for any cause following investigator-reported hospitalizations for HF in the PARADIGM-HF trial, which randomized 8,399 participants with HF and reduced ejection fraction to treatment with LCZ696 or enalapril.

RESULTS Accounting for multiple hospitalizations per patient, there were 2,383 investigator-reported HF hospitalizations, of which 1,076 (45.2%) occurred in subjects assigned to LCZ696 and 1,307 (54.8%) occurred in subjects assigned to enalapril. Rates of readmission for any cause at 30 days were 17.8% in LCZ696-assigned subjects and 21.0% in enalapril-assigned subjects (odds ratio: 0.74; 95% confidence interval: 0.56 to 0.97; $p = 0.031$). Rates of readmission for HF at 30-days were also lower in subjects assigned to LCZ696 (9.7% vs. 13.4%; odds ratio: 0.62; 95% confidence interval: 0.45 to 0.87; $p = 0.006$). The reduction in both all-cause and HF readmissions with LCZ696 was maintained when the time window from discharge was extended to 60 days and in sensitivity analyses restricted to adjudicated HF hospitalizations.

CONCLUSIONS Compared with enalapril, treatment with LCZ696 reduces 30-day readmissions for any cause following discharge from HF hospitalization. (J Am Coll Cardiol 2016;68:241–8)

Despite considerable progress in the development of effective medical therapy, patients with heart failure (HF) remain at high risk for recurrent hospitalization (1). Among those >65 years of age, roughly 1 in 4 patients is readmitted within 30 days of hospitalization and nearly one-half are readmitted within 6 months (2). High costs associated with in-hospital care threaten a doubling of health care expenditure on HF by 2030 (3). This anticipated financial burden, coupled with the concern that many early readmissions may be preventable by improving the quality of in-hospital care and care transitions (4,5) has focused attention on HF readmission rates as a metric of quality of care. In 2009, the Centers for Medicare & Medicaid Services began public reporting of all-cause readmission rates in the United States, and since 2010, U.S. hospitals with higher than expected risk-standardized readmission rates at 30 days are at risk for substantial financial penalties as part of the Hospital Readmissions Reduction Program.

In the PARADIGM-HF (Prospective Comparison of ARNI with an ACE-Inhibitor to Determine Impact on

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