

The Use of Supplemental Pharmacy Data to Improve Outcomes in Hospitalized Patients with Heart Failure

Abstract

Heart failure is the only cardiovascular disease with an increasing prevalence. This is largely related to improved management of other primary cardiovascular conditions, most notably acute ischemic heart disease. According to the American Heart Association, nearly 2.6 million hospitalizations will be attributed to heart failure this year. Along with this growing heart failure population has come multiple clinical trials demonstrating significant improvements in morbidity and mortality outcomes utilizing specific pharmacotherapeutic agents that antagonize neurohormonal pathways. As we expand our knowledge of beneficial medical therapies for patients with depressed left ventricular systolic function, the complexity of the evidence-based approach to heart failure pharmacotherapy increases. This has important cost, compliance, and tolerability implications.

Previous trial data has suggested that the majority of heart failure hospitalizations result from non-compliance with prescribed medical therapy, dietary restrictions or both. Additionally, heart failure hospitalization may result from the addition of a new medication used for the treatment of a co-morbid disease process. An obvious example is the addition of a non-steroidal anti-inflammatory drug for the treatment of either degenerative joint disease or an acute pain syndrome causing renal failure in a patient on an ACE inhibitor and a loop diuretic.

Finally, the complexity of contemporary medical regimens coupled with inadequate outpatient support systems, and the increasing availability of generic and over-the-counter medications is frequently confusing to the general population. It should be emphasized that the incidence of heart failure increases with age. Therefore, many heart failure patients live on a fixed income and rely on Medicare for health care coverage. These patients have significant difficulty adhering to complicated and costly medical regimens. Intentional and unintentional misuse of medications may result in adverse outcomes and hospitalization.

RxHub was founded in 2001 as a link between prescribers, pharmacies, pharmacy benefit managers and insurance carriers to share prescription benefit information. The product provides the caregiver of a hospitalized patient with point-of-care access to information pertaining to a prescription drug history and compliance with the prescribed drug regimen. The focus of this study is to assess the utility of the RxHub database in patients hospitalized for heart failure to improve outcomes and patient safety by detection of patient non-compliance, inadvertent use of duplicative medications and detection of unrecognized drug interactions.