

ABSTRACT

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An Evidence-Based Approach to Improve the Care of Patients with Heart Failure: The Use of Individualized Education and Tele-monitoring to Decrease Acute Hospital Days

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Background: More than 5 million Americans have heart failure and it's the only cardiovascular disease which is increasing in prevalence. Heart failure is the number one cause of hospital admission. Heart failure disease management is complex often resulting in hospitalization to control exacerbations. This chronic disease is associated with high mortality and carries a negative financial impact on the healthcare system. The growing epidemic of heart failure is associated with expanding mandated performance measures for providers caring for in-patient and ambulatory care patients.

Objective: The purpose of this project is to examine if new heart failure stage III and IV patients enrolled in a heart failure clinic led by a Clinical Nurse Specialist (CNS) utilizing individualized education and tele-monitoring with frequent follow up, experience fewer acute in patient hospital days compared to patients receiving usual care.

Methods: New heart failure patients were evaluated by the CNS to identify educational needs and learning methods. An individualized teaching plan was created including patient learning methods and preferences. Orientation to the HealthCall tele-monitoring system with accurate re-demonstration of the procedure was completed during their initial visit. Tele-management provided an opportunity for daily monitoring with frequent follow-up for re-education and support. This cycle provided a feedback loop to maximize self-care. Patient satisfaction was appraised via a survey collected on the tele-monitoring system (HealthCall, LLC).

Results: A 43.7% reduction in acute hospitalization days was experienced in the interventional group. Patient satisfaction results indicated patients in the interventional group felt they stayed out of the hospital longer and would recommend tele-monitoring to other heart failure patients. Satisfaction surveys indicated patients in the interventional group experienced greater overall satisfaction than the comparison group.

Conclusion: A CNS run heart failure clinic utilizing individualized education and tele-monitoring with frequent follow-up, increased the number of days a patient remains at home. The increase in at-home days, resulted in a savings to the acute care facility of \$216,150.00. Self-care improved patient perception of wellness and decreased hospitalized days for all admission diagnosis. Patients reported they were very satisfied with the care received at the CNS run heart failure clinic, the individualized education and utilization of tele-monitoring.