

Evaluation of Nurse Telemonitoring for Congestive Heart Failure

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Problem: There are 500,000 new cases of congestive heart failure (CHF) a year in the US at a cost of 10 billion dollars¹. As the population ages, this total increases. The highest costs associated with CHF result from hospital admissions. Within the Veterans Affairs (VA) health system, CHF accounts for 13% of all deaths and approximately \$15,000 total costs per person with CHF each year². Complex care and frequent CHF readmissions in the VA cost over \$243 million dollars.

Evidence: National and international guidelines for CHF management identify interventions to decrease re-admissions and improve outcomes³. These recommendations concentrate primarily on medical interventions, such as clinical assessments, invasive procedures, and pharmacological therapies, with less attention to effective case and patient self- management.

Strategy: Though improved communication post discharge is recommended for CHF management⁴, few studies examine nurse communication interventions sufficiently⁵. Telemonitoring was developed within the VA to decrease hospital admissions and improve outcomes and quality of life⁶, but evaluation tends to lack sufficient comparisons⁷, defined components and time periods⁸, and be less generalizable to Veterans⁹.

Practice Change: This retrospective, case-control study examines a nurse-run telemonitoring intervention over a two-year period with CHF patients within one VA medical center. This study with a power analysis compares a cohort of 70 CHF patients involved in telemonitoring and a randomized matched control group of 210 similar patients receiving usual care.

Evaluation: Outcomes include: hospital discharges, bed days of care, mortality, and costs.

Findings: Differences in mortality and hospitalization will demonstrate the implementation and evaluation of an evidence-based nurse intervention meant to improve congestive heart failure outcomes in primary care.

Recommendations: This evidence based approach to evaluation will identify components for improvement and dimensions for further testing. The process demonstrates how research translates chronic care evidence into practice to improve quality in CHF care.

Bibliography

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