

Abstract

ABSTRACT TITLE: Using a Discharge Readiness Checklist to Reduce Heart Failure Readmissions

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Background: HF readmission may suggest inadequate treatment during a previous stay. The national average of HF readmission rate was 24.6%. Our HF readmission rate at our institution was as high as 25.5% in 2011.

Purpose: Our goal was to decrease our 30-day HF readmission rate to less than 18% within a year.

Methods: We applied John Kotter's eight steps to successful change. We identified various knowledge gaps, then determined best practices, and applied six sigma principles to reduce unexplained practice variations. We used the evidence-based methodologies to effect behavioral changes and Jidoka principle to create a culture of shared knowledge and accountability. We set a low SMART goal at 20% compliance during the first phase based on Maloney's 16% rule followed by a robust PDCA cycle.

We compared the HF readmission rate before and after implementing the checklist by two methods. We used a statistical test of proportions with a confidence level of 95%. We compared the HF readmission rate for 18-months prior to implementation of the checklist (Group One: 2,253 patients) to those spanning 18-months after (Group Two: 2,626 patients). We also monitored our progress by comparing our observed readmission rate to the expected readmission rate.

Results: Group 1 had a readmission rate of 19.1% and Group 2 a rate of 15.6%. This is a 3.5% point reduction and an 18% improvement. The test of proportions comparing the two groups demonstrates a statistically significant difference with a P-Value = 0.001. Additionally, our 30-day O/E readmit ratio 12-month rolling average fell from roughly 1.2 to 0.8.

Conclusion: Use of a checklist is strongly associated with a reduction in HF readmissions. It serves as a guide for better patient care coordination to decrease unexplained practice variations. It has strong implications in terms of quality of care, morbidity, patient satisfaction, and cost reduction.