# The Heart Failure Bridge and Transition Team: A Multidisciplinary Intervention to Improve Quality and Reduce Cost of Care for Hospitalized Heart Failure Patients

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## Background and Rationale

- Heart failure admissions and readmissions drive cost of care.
- Our institution participated in Medicare Bundled Payments for Care Improvement (BPCI) for heart failure.
- We aimed to develop a transitional care intervention to improve quality and reduce costs.

## Objective

To analyze the impact of a multidisciplinary care team on heart failure admissions, readmissions, mortality, and cost.

## Methods

**Multidisciplinary Care Team:**
- Physician Champion
- 2 Nurse practitioners
- Social Worker
- Pharmacist
- Nurse educator
- Transitional care liason
- IT / Data analytics support

**Strategic Principle:**
- Identify patients hospitalized with heart failure
- Deliver inpatient interventions
- Coordinate post-hospital care

**Process Improvement Model**
- Scrum – an agile Lean process improvement methodology.

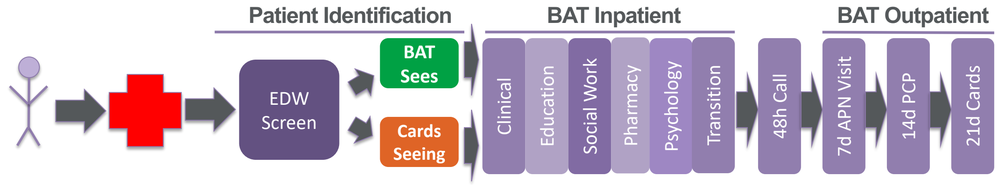


**Figure 1. Schematic of Heart Failure Bridge and Transition Team Process.** New heart failure admissions are identified through an enterprise data warehouse screen. Cardiology consultation is provided. Multidisciplinary inpatient services are offered. A 48 hour phone call is made. Followup in heart failure discharge clinic within 7 days is arranged.

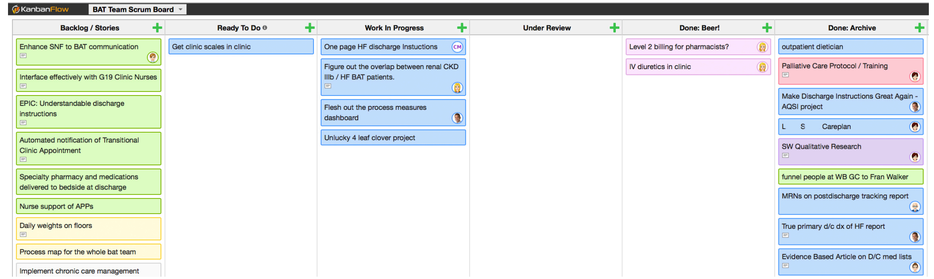


**Figure 2. Team Kanban Flow Board.** An online Kanban flow board supported process improvement using Scrum, an Agile process improvement implementation. Scrum emphasizes rapid iteration and shipping of new features and processes with minimal overhead.

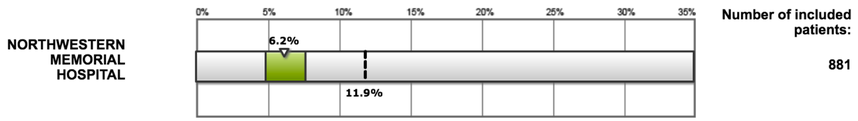


**Figure 3. Mortality.** Risk-adjusted 30-day mortality for Medicare patients with HF is 6.2% versus national mean of 11.9% for the 2014-2016 reporting window (hospitalcompare.gov).

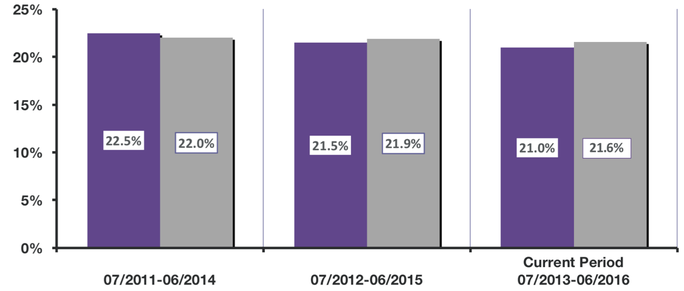


**Figure 4. Readmissions.** Readmissions decreased during the intervention.

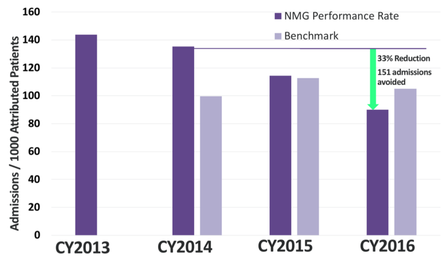


**Figure 4. Preventable Heart Failure Admissions.** During the intervention period, preventable HF admissions decreased by 33%, avoiding 151 HF admissions, equivalent to building 2 hospital beds.

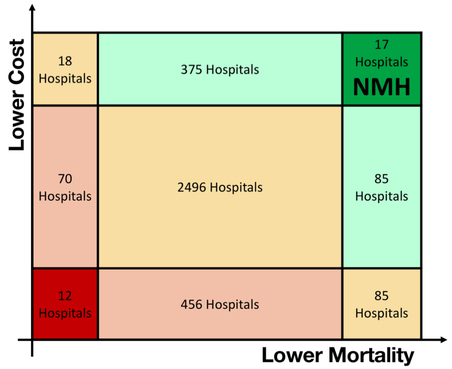


**Figure 5. Cost-Mortality Matrix.** Northwestern Memorial Hospital is one of 17 hospitals nationwide with the lowest cost / lowest mortality mix according to hospitalcompare.gov.

## Results

- Participants in HF bundled payments since July 2015.
- Risk-adjusted 30-day readmissions rates for Medicare patients have decreased.
- Risk-adjusted 30-day mortality has decreased and remains class leading at 6.2%.
- The Quality and Resource Use Report shows a 33% reduction in admissions/attributed patients.
- Our institution has received strong, sustained reimbursements under BPCI for all 8 quarters reported.
- Northwestern Memorial Hospital is one of 17 hospitals in the country with low mortality / low cost for heart failure.

## Conclusions

- Empowered multidisciplinary teams can make swift, significant, sustainable, and simultaneous improvements in health care quality and cost.
- Scrum is a simple and powerful process improvement paradigm that is well-suited to care redesign, and can drive rapid results.
- Further work will quantify impact on patient and provider satisfaction and therefore the Quadruple Aim.
- We are expanding this model across our hospital network.

**No Relevant Disclosures**