Improving the Discharge and Follow up Process of Heart Failure Patients Discharged to Skilled Nursing Facilities Utilizing a Multidisciplinary Team Approach Reduces 30-Day Readmission Rate.

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Overview/project description

Value Based Purchasing (VBP) Initiatives were developed by Medicare in an effort to reduce expenditures while preserving quality of care. The challenge is the large volume of hospitalized Heart Failure (HF) patients (4,000/year) with a historically high 30-day readmission rate (27%). HF patients discharged to Skilled Nursing Facilities (SNF) (23%) were at higher risk of readmission, p-value <0.05.

Goals/objectives

Development of a designated multidisciplinary HF Team (NP, PharmD, Case manager and SNF leadership) approach that integrates a standardized comprehensive pre/post discharge multidisciplinary management plan will decrease 30-Day readmission rates.

Methods/measurements

January 15 – April 1, 2019 was the implementation phase of the SNF Heart Failure Readmission Reduction Initiative (SNF-HFRRRI) Pilot Project which included generation of a daily patient list with Primary HF (ICD-10) and HF anticipated discharge list from case management. Daily HF Team morning rounds were conducted to review patient/family education, appropriate medication/adherence, and discharge readiness. HF patients identified to be discharged to a SNF were flagged for further in-depth pre-discharge HF NP consult/PharmD counsel and to develop a warm handoff to SNF leadership. Post discharge HF weekly telephone assessment with SNF senior RN leadership and attendings were conducted.

Results/findings/conclusions

Retrospective review of prospectively collected data was analyzed based on age, gender, NYHA, ACC stage, LOS, Unit of discharge and 30-Day Readmission and included Pre-SNF-HFRRRI (June 1, 2018 – January 15, 2019); Implementation Phase (January 15, 2019 –March 31, 2019); Post SNF-HFRRRI (April 1, 2019 November 15, 2019). We identified 182 HF patients (88-Pre-SNF-HFRRRI and 94 Post SNF-HFRRRI). Continuous variables (age, LOS) and categorical variables (gender, NYHA, LVEF, reason for readmission, hospital units discharged and 30-day readmission) were summarized; pre/post groups were compared using Wilcoxon rank, chi square and Fisher’s exact test. The groups were comparable to age, LOS, LVEF, ACC class, units discharged. A structured weekly post discharge phone assessment was statistically significant, p<0.001 by Fisher’s exact Test. The 30-day readmit rate was lower in the POST SNF-HFRRRI group compared to PRE SNF-HFRRRI group, 20.2% (19/94) vs. 28.4% (25/88) with a relative risk reduction of 28.87%, respectively, p=0.20.

Implications

Our newly integrated multidisciplinary HF team approach that incorporates a structured post-discharge collaborative approach can prevent avoidable 30-day readmissions and improve discharge preparedness.

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Process

HF Multidisciplinary Discharge checklist (HF NP, HF MD, PharmD and CM)
- HF, HF MD Consult (Criteria Checklist)
- NP (Education and screening)
- Designated HF Pharmacist (Medication review)
- Anticipated discharge date / CM provides 24 hour discharge notice
- Refer to collaborating SNFs /Homecare agency
- 7-10 day HF / Cardiology appointment
- Medication review
- Warm handoff completed and sent

HF Warm handoff
- Weight (Admission and discharge)
- Activity tolerance
- Cardiac Medication List
- Diet
- MD: Cardiologist information and appointment
- Allergies
- HF Type and co-morbid conditions
- Echocardiogram: Ejection fraction
- BNP
- Creatinine (baseline)

HF multidisciplinary post-discharge call WAMD-MD checklist
- Weight monitoring log
- Activity tolerance log
- Medication review
- Diet reinforcement (low-sodium, fluid restriction).
- MD: follow-up with outpatient cardiologist /HF clinic and/or SNF cardiologist

- Patient review/ screening
- Identification via CHF ICD10 codes
- Risk Stratification Assessment Tool

- Discharge Rounds with Case Manager (CM)
- Identification of patients leaving to skilled nursing facilities (SNF)
- Generation of warm-handoff document within 24 hours of patient discharge. This document gets faxed or emailed to designated person in SNF

- Post Discharge Follow up Weekly Telephone Call with HF NP, PharmD, MD and RN leadership
- Medication Review
- 7 Day Appointment
- MD follow up visit
- CHF clinic visit
## Results

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<tr>
<th>Objectives</th>
<th>Pre-intervention</th>
<th>Post-Intervention</th>
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<tr>
<td><strong>Enhance HF discharge preparedness</strong></td>
<td>18 of 88 = 20.45%</td>
<td>28 of 94 = 29.78%</td>
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| **Increase collaboration between hospital HF team and SNF providers** | Weekly phone calls  
Week 1=12  
Week 2 = 5  
Week 3= 5  
Week 4 = 5 | Weekly phone calls  
Week 1= 64  
Week 2 = 64  
Week 3=70  
Week4 = 53 |
| **Increase post-discharge MD appointment scheduled** | 5.6% | **61.7%**  
P-value <0.001 |

### Intervention: Daily HF Discharge Preparedness Rounds

**Post-implementation: Non-readmitted versus readmitted**

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<tr>
<th>Readmitted (N=13)</th>
<th>Non-Readmitted (N=75)</th>
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<td>10.50%</td>
<td>84.70%</td>
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P-value <0.01 (Chi Square Test)

### Post-intervention

- **Re-admission rate:** 20.2%
- **N:** 94

### Pre-intervention

- **Re-admission rate:** 28.4%
- **N:** 88

P Value = 0.20
Relative Risk Reduction = 28.9%
Absolute Risk Reduction = 8.2%