Preventing 30 Day Readmission for Patients with Heart Failure

PICO: In heart failure patients, how does utilizing post-discharge interventions decrease 30 day hospital readmission rates compared to not receiving follow-up interventions?

Lindsey Connors RN; Erin Gardiner RN; Davrener Garnett RN; Sarah Hall RN; & Selina Watts RN

Purpose

Our goal is to determine if post-discharge interventions are effective in reducing 30 day readmission rates for heart failure patients.

Background

-Heart failure is a chronic, progressive condition in which the heart muscle is unable to pump enough blood to meet the body's needs for blood and oxygen (American Heart Association, 2019).

-The Hospital Readmissions Reduction Program (HRRP) is a Medicare value-based purchasing program that reduces payments to hospitals with excessive readmissions. The program supports the national goal of improving healthcare for Americans by linking payment to the quality of hospital care.

-Heart failure ranks in the top 10 most expensive inpatient conditions in the United States. Researchers predict this expense to escalate as the country's population ages. Annual direct medical costs are projected to increase from $24.7 billion to $77.7 billion (Hospital Readmissions Reduction Program for Heart Failure, 2016).

-The 30 day readmission rates for Heart Failure patients at UM Baltimore Washington Medical Center is 25.8%. The national average is 22% (Readmission Rates at University of MD Baltimore Washington Medical Center, 2019).

Current Practice

-Patient discharge instructions include information on diagnoses
-Medication reconciliation and review completed
-Referrals made to Transitional Care Center (TCC)
-Follow-up appointments suggested
-Not all patients with heart failure are referred
-Referral is based on physician's decision

Literature Review

Level IA - 4 Studies:

Guirguis-Blake et al. research shows positive outcomes when high-intensity (increased time spent and frequency) home visiting programs, telephone support, and multidisciplinary heart failure programs are utilized.
"High intensity, face-to-face delivery, and multidisciplinary team involvement appear to be key elements of successful interventions, regardless of intervention type"
-Guirguis-Blake, J. (2016, March). Transitional Care Interventions to Prevent Readmissions for Patients with Heart Failure. Retrieved from https://www.aafp.org/afp/2016/0301/p401.html

Casimer et al. study focused on the importance of individualized education specific to each patient, as well as a multidisciplinary approach
"Casimer, Y. (2014). The effectiveness of patient-centered self-care education for adults with heart failure on knowledge, self-care behaviors, quality of life, and readmissions: a systematic review. Retrieved from https://journals.lww.com/jbisrir/Fulltext/2014/12020/The_effectiveness_of_patient_centered_self_care.16.aspx

Level IIA - 1 Study:

Mirkin et al found that socioeconomic factors including race and age, as well as comorbidities and being covered under Medicare, were large predictors of heart failure readmission.
-Mirkin, K., Enomoto, L.M., Caputo, G.M., Hollenbeak, C.S. (2017). Risk factors for 30-day readmission in patients with congestive heart failure. Retrieved from https://www.sciencedirect.com/science/article/pii/S0147956316302965

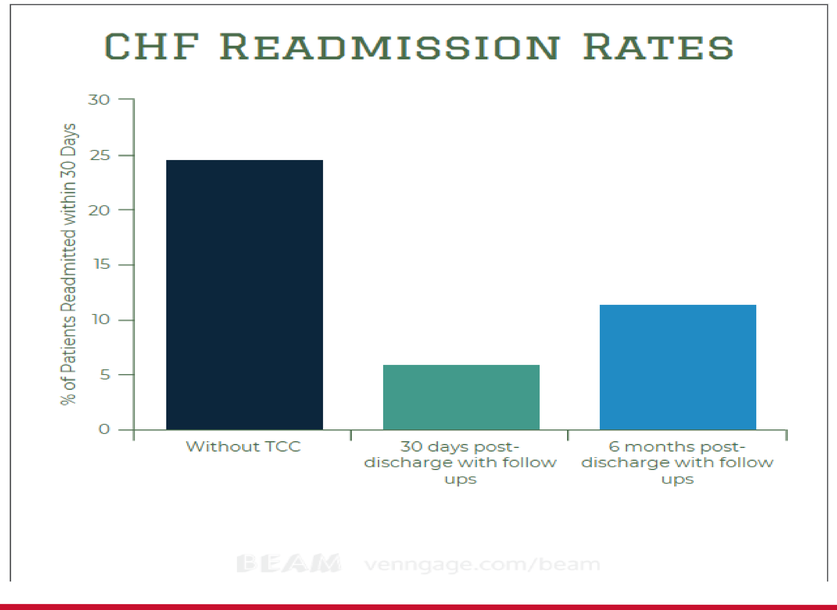
During the study, researchers developed a "risk stratification table" that represented certain characteristics of patients and scored them on a scale of least likely to most likely to have a heart failure readmission. With this method, researchers could aim transitional care models directly at those that fell into the high probability of readmission. This showed positive readmission scores when utilized.
-Dermenchyan, A. (2017, July). Preventing Heart Failure Readmissions By Using a Risk-Stratification Tool. Retreived from https://stti.confex.com/stti/congrs17/webprogram/Paper84609.html

Level IIIA - 2 Studies:

The findings suggest that inpatient unit HF discharge volume may negatively impact care processes, increasing the odds of hospital readmission. "The discharge period is a vulnerable point in care transition that warrants further investigation."
-Dordunoo, D., Thomas, S., Friedmann, E., Russell, S., Newhouse, R., Akintade, B. (2017). Inpatient Unit Heart Failure Discharge Volume Predicts All-cause 30-Day Hospital Readmission. Retrieved from: https://journals.lww.com/jcnjournal/Abstract/2017/05000/Inpatient_Unit_Heart_Failure_Discharge_Volume.4.aspx

Level IVA - 2 Studies:

Clinical guidelines from American Heart Association considering heart failure patients and the statistical importance of those readmission rates.
-Go AS, Mozaffarian D, Roger VL, et al. (2014). Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/24352519



Recommendations For Practice Change

- Connect patients to resources, primary care providers and specialists in their community prior to discharge
-Individualize patient education about chronic conditions and medications
-Include discharge follow up phone calls, individualized patient education to include nutritional journaling, daily weights, and medication education beyond the hospital setting
-Follow up appointments scheduled prior to discharge from the hospital
-Nurse-driven protocol to make referrals to transitional care:
- education to new and current nurses on transitional care and how it is implemented
- During rounds with physician, RN addresses whether transitional care should be utilized

-Addition of transitional care staff member to multidisciplinary care team
-In-service semi-annually speaking to staff about transitional care

Conclusion

Many studies have shown that transitional care interventions "promote patient safety and contribute to other positive outcomes," but more research is needed to clarify what the interventions should be and which benefit the patient the most. Transitional care is available at UM BWMC and needs to be utilized more frequently. One way this could be achieved would be through a nurse-driven protocol. This would give nurses the autonomy to refer patients to transitional care if it is deemed necessary. Another way transitional care use can be increased is through the addition of a transitional staff member to the multidisciplinary team. This would ensure communication between case management and other members to ensure the best possible patient outcomes.

Research Method / Terms Searched

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Inclusion: 2015 - current; peer-reviewed journals
Keywords: heart failure; readmission rates; transitional care; heart failure nutrition; heart failure care coordination; "patient engagement in discharge care"

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References available upon request.