Using the Yale Heart Failure Readmission Tool to Predict Patients at High-Risk for Readmission

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1 Background

Heart failure is a chronic condition with no cure and is one of the most expensive diseases in the United States (Stamp, Flanagan, Gregas, & Shindul-Rothschild, 2014). It is a progressive disease in which the heart muscle enlarges in compensation for inefficient pumping (Sterne, Grossman, Migliardi, & Swallow, 2014). "Heart failure affects 5.1 million Americans. It is the leading cause of hospitalization in older adults and the most common cause of re- admissions, which cost approximately $12 billion annually. Re- admissions can be reduced through increased nurses' knowledge in heart failure" (Sterne et al., 2014). Heart failure prevalence and readmission rates are disappointingly high despite recent evidence-based guidelines and therapies. It is estimated that by 2030, heart failure prevalence will have increased by 20% (Alspach, 2014). Currently, nearly one fourth of patients who are hospitalized with heart failure are readmitted within 30 days of discharge (Bradley et al., 2012). The goal of hospitals and health care providers is to lower the readmission rates of heart failure patients as mandated by the Center for Medicare & Medicaid Services. Reducing readmissions will also reduce healthcare costs and increase the quality of life in these patients.

2 Objectives

The goal of this project is to create a standardized way that heart failure patients are evaluated upon admission to the hospital in order to identify patients at a high risk for readmission and to provide inpatient and transitional services to improve patient outcomes.

3 Methods & Materials

For the pilot study there was a retrospective review of 303 heart failure patients who were admitted to Johns Hopkins Hospital from September 1, 2014 to December 31, 2014. We used the Yale Heart Failure Readmission Risk Tool with a cut-off score of 23. The Yale Heart Failure Readmission Risk Tool uses clinical information and lab values gained from a patient's initial admission to the hospital and calculates a percentage for how likely it is that that patient will be readmitted within 30 days.

http://www.readmissionscore.org/heart_failure.php

4 Conclusions/Future Directions

This is an ongoing project. The pilot project using retrospective chart data on heart failure patients admitted from September 2014 through December 2014 provided data to determine a cutoff score of 23% in this patient population. This project reflects the pilot project information and the next phase of the project will track all patients admitted from September 1, 2015 through December 31, 2015. Yale scores on all inpatient heart failure patients will be calculated within 24 hours of admission and based on the Yale score, referrals to evidence-based services will be made in an attempt to improve patient outcomes. These services are: a consultation with the Heart Failure Nurse Specialist (CNS), an early case management consultation, a recommended cardiology consultation for any patients with newly diagnosed systolic heart failure, and a recommended Heart Failure Bridge Clinic follow-up for 30 days. Individual values from the Yale Risk Tool will also be examined to determine if any specific factors lead to higher readmission rates in this population. Although the Yale Readmission Risk Tool only provides an estimate of risk for readmission, it may provide hospitals with valuable insights regarding chances of the patient being readmitted. Both the retrospective and prospective samples will be analyzed to determine whether using the Yale Heart Failure Readmission Risk Tool along with access to specialized services decreases readmission rates.

5 References

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