Pilot Analysis of the Risk Factors for 30 Day Readmission in Hip Fracture Patients

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The results found in this study demonstrate that patients with a high likelihood of rehospitalization can be identified during the initial encounter. Early identification of high-risk patients can alter management of these patients to decrease readmission. This would decrease financial burden and improve patient outcomes.

**Background**

The Affordable Care Act currently requires hospitals to report 30-day readmission rates for certain medical conditions [1]. It has been suggested that surveillance will expand to include hip and knee surgery-related readmissions in the future [2]. To ensure quality of care and avoid penalties, readmissions related to hip fracture require close attention. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery [3]. The financial burden of hip fracture readmissions is significant as hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery. Hip fractures are the most common orthopedic admitting diagnosis, outside of elective spinal surgery.

There is literature reporting that there are predictors of readmission based on a large number of factors [4]. The total number of charts was 641. The number of risk factors present in the percent of readmitted patients is presented in Figure 3.

A total of 641 charts were reviewed looking for pre-existing pulmonary disease, discharge to a skilled nursing facility, and hospital stay for greater than 8 days. Of the 641 patients treated for hip fractures, 78 were re-admitted to the hospital within 30 days. The percentage of risk factors present in all 641 patients treated for hip fractures is presented in Figure 1. The percentage of risk factors present in the percent of readmitted patients is presented in Figure 2. The number of risk factors present in the percent of readmitted patients is presented in Figure 3.

**Methods**

This was a retrospective chart review of patients admitted and treated for hip fractures at LVHN Cedar Crest from September 2018 to August 2018. Patients were included in the review if they had a primary diagnosis of any of the following: dislocation non-displaced proximal femur fractures located intracapsular, intertrochanteric, subtrochanteric, or unspecified fracture of the femoral head or neck. Patients were excluded if they were an inpatient encounter for a closed fracture. Open fractures were excluded.

Included patients were reviewed and the following data points were collected for each patient: history of existing pulmonary disease, length of hospital stay, and location of discharge. Pre-existing pulmonary disease includes conditions that explain the most recent exacerbation of the disease: COPD, pulmonary hypertension, pulmonary fibrosis, asthma, acute respiratory distress syndrome, chronic bronchitis, interstitial lung disease, chronic airway obstruction, sleep apnea, congenital heart failure, respiratory failure. The patients were designated as either having pre-existing pulmonary disease or not. The length of hospital stay was divided into 2 groups, those that stayed greater than or equal to 8 days and those that stayed less than 8 days. Patients were discharged to skilled nursing facilities versus inpatient rehab facilities.

**Results**

Percent of readmitted patients with specific risk factor

John Doe

Figures 1-3 show the relationship between the number of risk factors and the percent of readmitted patients. The figures illustrate that as the number of risk factors increases, the percent of readmitted patients also increases. The figures also show that patients with a large number of risk factors are more likely to be rehospitalized than patients with fewer risk factors.

**Discussion**

General Discussion

The preliminary data collected during this review could provide opportunities for improvement in the way in which hip fracture patients are managed. The literature states that pre-existing pulmonary disease, discharge to a skilled nursing facility, and a hospital stay greater than 8 days are risk factors that predispose patients to readmission within 30 days. The percentage of risk factors present in all 641 patients treated for hip fractures is presented in Figure 1. The percentage of risk factors present in the percent of readmitted patients is presented in Figure 2. The number of risk factors present in the percent of readmitted patients is presented in Figure 3.

**Conclusions**

The results found in this study demonstrate that patients with a high likelihood of rehospitalization can be identified during the initial encounter. Early identification of high-risk patients can alter management of these patients to decrease readmission. This would decrease financial burden and improve patient outcomes.

**References**

7. These confounders make the variable of “discharge to skilled nursing facility” difficult to quantify.

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