Discordance Between Initial Inpatient Discharge Recommendation and Final Discharge Destination Increases Length of Stay for Geriatric Hip Fracture Patients

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INTRODUCTION:

Geriatric hip fractures are one of the most common orthopedic injuries requiring hospitalization and with an estimated annual cost of nearly $6 billion, they represent a significant burden on the United States healthcare system. Predicting discharge to appropriate post-acute care facilities can facilitate on-time hospital discharge, thereby decreasing hospital length of stay and healthcare cost. The objective of this study was to determine whether discordance between initial discharge recommendation and final discharge destination leads to an increased hospital length of stay, and whether length of stay can be decreased by altering guidelines for initial discharge recommendations for hip fracture patients at a Level 1 academic medical center.

METHODS:

A quality improvement (QI) initiative that reviewed pilot data on 39 patients found substantial discordance between initial recommendation (acute rehab vs subacute rehab (SAR) vs home) and final discharge disposition. Based on this (QI) data, new guidelines required patients over the age of 70 that use any assistive device at baseline be recommended for subacute rehabilitation facilities and not be considered for discharge to acute rehabilitation facilities.

232 consecutive geriatric patients (mean age 81.5 $\pm$ 12.6 years) treated surgically for hip fracture (OTA/AO 31) at a Level 1 academic trauma center were evaluated. 119 patients hospitalized prior to the guideline change (from October 1st, 2020 to March 7th, 2021) and 113 patients hospitalized after the guideline change (from March 8th, 2021 to September 30th, 2021) were compared regarding: 1) The rate of discordance between initial discharge recommendation and final discharge destination, 2) the average length of stay (LOS).

RESULTS: There was a statistically significant decrease in LOS from before to after guideline change (6.1 $\pm$ 2.7 days versus 5.5 $\pm$ 2.4 days, p=.036). LOS was significantly longer when there was a discordance between the initial and final discharge recommendation (7.1 $\pm$ 2.5 days with discordance, 5.5 $\pm$ 2.7 days without discordance, p=0.007). The guideline change resulted in a trend towards decreased discordance rate between initial discharge recommendation and final discharge destination from 25.2% to 17.7% (p=.11).

DISCUSSION AND CONCLUSION:

Hospital LOS for hip fracture patients treated surgically is affected by appropriate initial discharge recommendation. Geriatric hip fracture patients with a discrepancy between the initial discharge recommendation and final discharge destination have increased hospital LOS. Implementation of simple changes to discharge planning guidelines resulted in a trend towards fewer of these discrepancies and results in decreased hospital LOS for geriatric hip fracture patients. Specifically, limiting the initial discharge recommendation to SAR or home rather than acute rehabilitation for geriatric hip fracture patients with limited functional capacity at baseline resulted in significantly shorter hospital LOS in this population. A coordinated multidisciplinary team of orthopedic surgeons, anesthesiologists, medical co-management services, and physical therapists are required for optimal care for geriatric hip fracture patients; and careful initial assessment of these patients allows hospitals to maximize efficiency, minimize patient length of stay, and minimize overall cost to the healthcare system.