

Length of Stay for Geriatric Hip Fracture Patients Can Be Reduced by Optimized Initial Inpatient Discharge Recommendations to Rehabilitation Facilities

Gregory Schimizzi, MD; *Mark F. Megerian, BS; Scott M. Lavalva, MD; Kathryn Barth, MD; Ajay Premkumar, MD; Craig Klinger, MPH; Daniel Ri. Dziadosz, MD; Sean T. Campbell, MD; William M. Ricci, MD*

Purpose: For geriatric hip fracture patients, discharge planning that accurately predicts discharge disposition (acute rehabilitation vs subacute rehab [SAR] vs home) can facilitate timely hospital discharge, thereby decreasing hospital length of stay (LOS). The objective of this study was to determine whether discordance between initial discharge recommendation and actual discharge destination lead to an increased hospital LOS, and whether LOS could be decreased by altering guidelines for initial discharge recommendations for these patients.

Methods: A quality improvement (QI) initiative at a Level I academic trauma center reviewed pilot data on 39 patients and found substantial discordance between initial discharge recommendation (acute rehab vs subacute rehab [SAR] vs home) and final discharge disposition. Based on these data, new guidelines were created where patients with low-energy hip fractures over the age of 70 who used any assistive device at baseline would be recommended for subacute rather than acute rehabilitation facilities. Consecutive geriatric patients treated surgically for hip fractures (OTA/AO 31) prior to the guideline change (October 2020 to March 2021) were compared to patients after the guideline change (March 2021 to September 2021) regarding the rate of discordance between discharge recommendation and final discharge destination and LOS.

Results: 232 patients prior to guideline change and 113 after were included. The mean age for included patients was 81.5 ± 12.6 years. LOS was 29% longer (1.6 days) when there was a discordance between the initial discharge recommendation and actual disposition (7.1 ± 2.5 days versus 5.5 ± 2.7 days, $P = 0.007$). The guideline change resulted in a significant 10% (nearly 1 day) decrease in LOS (6.1 ± 2.7 days versus 5.5 ± 2.4 days, $P = 0.036$) and a trend toward decreased discordance rate between initial discharge recommendation and final discharge destination from 25.2% to 17.7% ($P = 0.11$).

Conclusion: This study demonstrated that accurate discharge disposition planning reduces hospital LOS for geriatric hip fracture patients. Careful review of discharge planning with a goal to implement simple discharge planning guidelines that reduce unrealized attempts for discharge to rehabilitation facilities can reduce LOS.