Ready for Discharge? Factors Associated With Prolonged Length of Stay Following Geriatric Hip Fracture

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Purpose: Our objective was to identify factors associated with prolonged length of stay (LOS) following geriatric hip fractures.

Methods: We conducted a single-center retrospective review of geriatric (age >65) hip fractures between October 1, 2014 and November 1, 2024. Patient demographics, injury/surgery characteristics, and inpatient complications were reviewed. Patients who died during hospitalization were excluded. Patients were cohorted into “normal” LOS (nLOS) and “prolonged” LOS (pLOS); pLOS was defined as 1 standard deviation above the mean LOS. Cohort variables were compared using standard statistical tests. Multivariable analysis was used to isolate covariates associated with pLOS while controlling for confounders.

Results: A total of 3523 patients were identified. Mean LOS was 6.36 days (standard deviation = 4.41 days) and pLOS LOS was 10.77 days. The pLOS cohort was sicker, and less functionally independent at baseline. The pLOS cohort had a more complicated hospital course with a 6x increase in major complications (P<0.001) and 2x increase in minor complications (P<0.001). The demographic characteristic contributing the most to pLOS was American Society of Anesthesiologists (ASA) status (Table 1). The injury/surgery characteristic contributing the most to pLOS was time from admission to surgery (Table 1). The complication contributing the most to pLOS was new-onset stroke (Table 1).

Conclusion: Multiple factors are associated with pLOS in geriatric hip fractures and a targeted approach to identifying patient characteristics and minimizing complications can be undertaken with these data.

Table 1: Multivariate Regression of Factors Associated with Prolonged LOS

Variable	O.R.	95% CI	Sig.
Stroke	4.81	1.26 - 18.39	**0.022**
Decubitus Ulcer	3.42	1.39 - 8.57	**0.009**
Pneumonia	3.40	1.93 - 6.01	**<.001**
Acute Respiratory Failure	2.48	1.43 - 4.3	**<.001**
ICU	2.26	1.66 - 3.09	**<.001**
Sepsis	2.09	1.02 - 4.27	**0.044**
ASA	1.44	1.15 - 1.79	**<.001**
CCI	1.08	1.01 - 1.17	**0.039**
Admission to Surgery (days)	1.08	1.02 - 1.14	**0.005**
Sex	0.61	0.46 - 0.81	**<.001**