

Primary Care Physician Follow-Up and 90-day Readmission Rates and Costs Following Hip Fracture Surgery

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INTRODUCTION:

Hip fractures in older adults are associated with high morbidity, mortality, and healthcare costs. Optimizing post-discharge care is critical to improving outcomes. While early primary care physician (PCP) follow-up has been linked to reduced readmissions in general surgery, its impact on orthopaedic hip fracture surgery remains unclear. This study evaluates the association between PCP follow-up and 90-day emergency department (ED) visits, readmissions, and Medicare expenditures in a nationally representative cohort of Medicare beneficiaries undergoing hip fracture surgery.

METHODS:

A retrospective cohort study was conducted using 100% Medicare claims data (2018-2022). Patients aged ≥ 65 years undergoing hip fracture surgery (Diagnosis Related Groups (DRGs) 480-482) from 2019-2021 were included. Continuous Medicare Part A & B enrollment for 365 days pre-admission and 90 days post-discharge was required. PCP follow-up within 30 days was identified using Current Procedural Terminology (CPT) codes. Primary outcomes included 90-day ED visits, 90-day readmissions, and total 90-day Medicare expenditures. Multivariable logistic regression models with generalized estimating equations (GEE) were used to assess associations, adjusting for socio-demographics, clinical factors, and hospital-level clustering.

RESULTS:

A total of 185,165 Medicare beneficiaries met inclusion criteria (mean age: 81 years; 74.3% female; 92.4% White, 2.8% Black, 1.2% Asian, 1.1% Hispanic). The overall PCP follow-up rate was 31.9%. Lower follow-up rates were observed among patients from high Area Deprivation Index (ADI) areas (7.7% vs. 9.4%, $p < 0.001$) and rural regions (16.6% vs. 23.3%, $p < 0.001$). PCP follow-up was associated with slightly higher 90-day readmission (Adjusted OR 1.04, 95% CI 1.01-1.08, $p = 0.01$) and ED visit rates (Adjusted OR 1.06, 95% CI 1.02-1.09, $p < 0.001$). No significant association was found between PCP follow-up and total 90-day Medicare expenditures (Adjusted OR 1.02, 95% CI 1.00-1.05, $p = 0.07$).

DISCUSSION AND CONCLUSION: Despite its importance in continuity of care, PCP follow-up was associated with increased ED visits and readmissions, potentially reflecting a higher baseline comorbidity burden or increased detection of complications. Disparities in follow-up access were evident, warranting targeted interventions to enhance post-discharge care coordination and optimize outcomes for hip fracture patients.

Figure 1: Forest Plots displaying unadjusted relationship between ADI, Dual-Eligibility, Race and the outcome PCP Follow-up

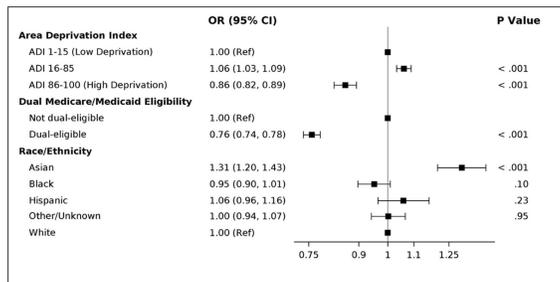


Figure 2: Forest Plots displaying adjusted relationship between ADI, Dual-Eligibility, Race and the outcome PCP Follow-up

