

Prevention of Hip Fracture:**An Analysis of "Preadmission" and Opportunity for Intervention***Sarah Pierrrie, MD; Christine Churchill, MA; Joshua Patt, MD, MPH;**Rachel Seymour, PhD; Madhav Karunakar, MD**Carolinas Medical Center, Charlotte, North Carolina, USA*

Background/Purpose: Hip fractures are associated with significant morbidity and mortality among older adults. While considerable literature exists on the injury burden, loss of independence, and mortality following hip fracture, little attention has been paid to primary or secondary prevention in the acute care setting in this medically comprised population. The purpose of this study was to describe the incidence of and reasons for emergency department (ED) visits or inpatient hospitalizations in the 12 months prior to admission for hip fracture in order to identify opportunities for intervention.

Methods: A retrospective study of patients aged 55+ with hip fractures treated in our hospital over a 1-year period was performed. Medical records were reviewed for patients who experienced one or more "preadmissions," defined as ED visits (excluding those that led to admission) and inpatient admissions for the year prior to the hip fracture. Demographic characteristics, reason for visit, interventions, discharge disposition, and complications were documented.

Results: 157 patients with an average age of 78.4 years (range, 55-100) were treated for a hip fracture at an urban academic trauma center during a 1-year period. 66% were women and 34% were male. 45% (N = 70) were admitted to the hospital in the year prior. Of these, 39% (N = 27) visited the ED (N = 13 with 2+ visits), 37% (N = 26) had at least one inpatient stay (N = 18 with 2+), and 24% (N = 17) had both an ED encounter and inpatient stay in the 365 days prior to the hip fracture. 50% of "preadmissions"—35% (N = 15) of ED visits and 24% (N = 10) inpatient admissions—were due to either mechanical or syncopal falls. The remainder presented for medical issues, including altered mental status (16%, N = 11), shortness of breath (19%, N = 13), and chest pain (13%, N = 9). 75% of patients presented with an exacerbation of an existing medical illness.

Conclusion: 45% of hip fracture patients presented for emergency or inpatient care in the year prior to the injury, presenting an opportunity for intervention. While medical issues are more common, 50% sought care related to a fall. Targeting these patients with programs such as falls education, in-home safety evaluations, and balance training might prevent future fragility fracture.