Characteristics of the Acute Geriatric Patient after a Femur Fracture and the Impact of a Multidisciplinary Team

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Purpose/Hypothesis: Falls in the geriatric population can threaten their independence and create a financial burden on the healthcare system. Trauma and hospitalization after a fall can lead to a decline in functional mobility, future falls, and mortality.¹⁻³ Femur fractures are a common injury and management guidelines suggest an interdisciplinary approach.⁴ The purpose of this study was to describe a geriatric trauma population at an academic medical center who were admitted for a femur fracture after a fall and to determine the impact of a multidisciplinary team specializing in geriatric trauma.

Number of Subjects: 200

Materials/Methods: This was a retrospective chart review of patients≥65 years of age who were admitted over a 2 year period with a femur fracture from a fall. One hundred charts pre-implementation of the multidisciplinary team and 100 charts post were randomly selected. General demographics, comorbidities, preadmission function, fall details, hospital/surgical information and rehabilitation notes were collected.

Results: Mean age of the patient was 80.4±9.4 years with 72.5% being female. Thirty percent were ambulating household distances and 57% were ambulating in the community. The following co-morbidities were seen: diabetes 27%, cardiac 82%, neuromuscular 26%, osteoarthritis 36% and cognitive impairment 22%. The reason for the fall was: 71% fell from standing, 13% fell from sitting, 7% fell on the steps and 9% had an unwitnessed fall. The majority of the patients (95%) required surgical intervention. Eighty-six percent of the patients were able to transfer out of bed prior to discharge but 70% required ≥50% assistance. Only 40% of patients were able to ambulate prior to hospital discharge. The discharge location was: home(4%), home with home health(10%), skilled nursing facility(64%), or acute rehab(22%). After implementation of the multidisciplinary team, there was a statistically significant decrease in length of stay from 6.3±4.8 to 5.1±2.7 days (p<.05). There was no change in the utilization of PT services (99%) but the average number of PT sessions decreased from 2.7±1.9 to 1.7±1(p<0.1). There was an increase in the utilization of occupational therapy (OT) services (78% to 95%, p<.05) but no
difference in the number of sessions. Days from surgery to out of bed decreased from 2±2.6 to 1.4±0.7 days (NS). No differences existed between groups for discharge destination.

**Conclusions:** This study provides a description of geriatric patients hospitalized after a femur fracture. It also demonstrates some benefits of a multidisciplinary team such as decreased length of stay, earlier mobilization and increased utilization of OT.

**Clinical Relevance:** Incorporating a structured interdisciplinary approach to the care of the geriatric patient may lead to positive clinical outcomes and reduce healthcare costs associated with falls. Future studies evaluating the long term impact of specialized multidisciplinary teams in the acute setting are needed.