Hip Fracture Order Set Utilization as a Means to Identify Fragility Hip Fractures

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Introduction

- Osteoporosis is diagnosed by occurrence of a fragility fracture, bone densitometry (DEXA scan), or x-ray studies. A fragility or osteoporotic fracture is one that occurs during normal activities (i.e. falling from standing height).
- Approximately 2 million fragility fractures occur annually in the U.S. and this will rise to over 3 million by 2025 reaching a cost of $25 billion.
- 60% of patients do not regain pre-hip fracture functional capacity and significant psychological effects can occur.
- Across multiple studies, the rate of diagnosing osteoporosis is 60% of patients do not regain pre-hip fracture functional capacity and significant psychological effects can occur.
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Problem Statement

- A majority of hip fracture patients do not receive adequate follow up care (DEXA screening, osteoporosis treatment, and PCP referral).
- It is important to understand compliance by LVHN hospitalist departments using a Hip Fracture Admission Order Set to ensure patients receive coordinated care by a Fracture Liaison Service.

Methods

- Based on JHACO criteria, a retrospective chart review determined the baseline percentage of LVHN hip fracture patients from September 2016 – December 2016 who received a DEXA scan either 12 months prior to or 6 months after a hip fracture. This determined if LVHN would benefit from an FLS model.
- A Hip Fracture Admission Order Set that includes a FLS consult was implemented for LVHN hospitalists.
- Finally, a retrospective analysis was done of hip fracture admission order set compliance from January 2017–October 2017 by the hospitalist departments at LVHN CC and Muhlenberg.

Results

- From Sept 2016 to Dec 2016, just 6.8% of LVHN CC and Muhlenberg hip fracture patients received an outpatient DEXA scan either 12 months prior to a hip fracture or 6 months after discharge.
- Hip Fracture Admission Order Set usage by LVHN CC and Muhlenberg hospitalist departments was 34.3% and 12.8%, respectively.
- Compliance by hospitalists was 27.7% vs 28.2% by PA/CRNPs.
- Overall compliance for 293 hip fracture patients over 10 months was 27.9%

Figure 1. Osteoporosis Associated Fracture Pathway

Figure 2. Order Set Compliance by Department (from January - October 2017)

Figure 3. Order Set Compliance by Provider Type and Department

Conclusions and Future Implications

- Data showed Hip Fracture Admission Order Set compliance can substantially increase with another formal rollout at LVHN.
- Better order set compliance will lead to more care coordinated by the FLS model (once online), more outpatient PCP follow-up with DEXA scans, and greater outpatient osteoporosis treatment.
- Greater compliance is needed for higher hospital reimbursement and lower hip fracture morbidity and mortality long term for LVHN patients.