Improving Quality Outcomes in Hip Fracture Patients through Development and Implementation of an Evidence-Based Protocol

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Objectives

1. Describe innovative process improvement strategies used to develop and implement an evidence-based hip fracture protocol
2. Identify quality outcomes resulting from protocol implementation

Methodology

Baseline and post-protocol implementation data was collected for hip fracture length of stay, mortality and several other quality measures. Retrospective and prospective patient chart reviews were also conducted to measure protocol compliance. Protocol components included: 1) Co-managed approach to patient care (medical/orthopaedic collaboration), 2) evidence-based order sets and clinical pathways, 3) appropriate VTE prophylaxis, 4) patient/family education, 5) multi-modal pain management with focus on geriatrics, delirium prevention and decreased opioid use, 6) early mobility, 7) automatic nutrition consults, 8) speech language pathology for swallow evaluation, 9) palliative care consults, and 10) osteoporosis awareness. The protocol was implemented in June 2013.

Outcomes

See Graphs: Hip Fracture Length of Stay (LOS) and Mortality Rates. Prior to protocol implementation in 2013, the hip fracture mortality rate was 5.15% and FY 2013 LOS was above benchmark, at 4.72 days. Over the last 3 fiscal years following protocol implementation, mortality rates and LOS have decreased, trending toward Inpatient Quality Indicator (IQI) benchmarks for Top Decile (i.e., top performer peer facilities), with both currently better than benchmark. Other improvements in quality outcomes noted since protocol implementation include protocol compliance (98 - 99% compliance), postoperative metrics (as high as 100%) and discharge metrics (as high as 96%).

Discussion/Conclusions

This protocol demonstrates a state-of-the-art approach to a common problem seen throughout the US and internationally and serves as a model for integrating best-practices and a co-managed approach in providing standardized top-tier care to hip fracture patients. Outcomes at this healthcare system continue to improve following implementation of this protocol.

Implications

This protocol can be utilized to assist other facilities with protocol development. It can be used as a framework to direct and drive best practices in caring for the hip fracture population. The model can be used to standardize care and produce better results by improving mortality, postoperative care, and the transition from hospital to home. It also showcases an innovative strategy for engaging physicians from multiple practices to lead the implementation of clinical process improvement utilizing this approach. Continuation of collaborative efforts is required to sustain positive outcomes with the goal of top-tier patient care.

References