

Evidence-Based Practice (EBP) - E136

Oral Presentation

Abstract Title:

Refining Our Geriatric Trauma Practice Management Guideline to Reduce Mortality

Authors:

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Background & Purpose:

In comparison to the American College of Surgeons Trauma Quality Initiative Program (TQIP) 2009 benchmark report (received in 2010), we noted that overall mortality was comparable in the risk adjusted geriatric population (KUH 10%, TQIP 10.8%). However, mortality in the risk adjusted multiple blunt geriatric trauma patient exceeded the TQIP benchmark (KUH 27.8%, TQIP 21%). Because our overall trauma mortality runs much lower than national benchmarks, we felt that we could do better for this high risk population. Recent literature suggests that more than 80% of geriatric trauma patients can return to their preexisting level of function with aggressive initial treatment and follow up-care.

Study/Project Design:

Pre-intervention= CY 2009 data. Intervention period = January 2010- July 2011. Post intervention period = FY 2012.

Setting:

The University of Kansas Hospital (TUKH), a Level I ACS verified trauma center and academic medical center.

Sample:

All patients age 65 or older, excluding those with isolated hip fractures admitted between January 1, 2009 and June 30, 2012 (N = 650 patients).

Procedures:

Revisions were made to our activation policy to emphasize low energy mechanisms and history of therapeutic anticoagulation. Our geriatric practice management guideline was revised to include recommendations for aggressive management by a surgical intensivist, minimally invasive monitoring, management of rib fractures to include posterior paramedian submuscular local anesthetic infusion, warfarin reversal and medication management guidelines with the Beers list reference. Additionally, we included a Geriatric Internal Medicine consult for all patients aged 75 and older as well as any patient aged 65 and older with two or more comorbidities. The purpose of this consult is to minimize the effect of medical complications, assist with goals of care, assist in coordinating discharge planning and follow up with a geriatrician, and to assist with medication management/avoidance of potentially inappropriate medications.

Findings/Results:

Pre-intervention overall geriatric mortality for TUKH CY2009 was 10% (TQIP CY2009 10.8%). Pre-intervention geriatric mortality for multiple system blunt trauma (AIS \geq 3 in 2 or more body systems) for TUKH CY2009 was 27.8% (TQIP CY2009 21%). During intervention overall geriatric mortality for TUKH CY2010 was 11.7% (TQIP CY2010 9.6%). During intervention geriatric mortality for multiple system blunt trauma for TUKH CY2010 was 23.5% (TQIP CY2010 20.1%). Post intervention data overall geriatric mortality for TUKH FY 2012 was 4.5% (TQIP 2011 11.2%). Post intervention geriatric mortality for multiple system blunt trauma for TUKH FY2012 was 13.3% (TQIP CY2011 21%). This was an overall reduction in geriatric trauma mortality of 5.5% and a reduction in mortality of 14.5% in the most severely injured geriatric patients.

Discussion/Conclusions/Implications:

This project represented a culture shift for nurses, surgeons and ancillary care providers from the belief that a severely injured elderly person had little chance for meaningful survival to the realization that with aggressive treatment, survival and recovery were possible. We had to overcome feelings of overtriage amongst our nursing staff as many of these patients who were not previously trauma activations and who had previously been admitted to the

med-surg floor were now trauma activations with admission to the ICU. Our next steps will be to attempt to measure one year survival and quality of life measures in survivors.