

Poster presentations

057 UTILISATION OF LEAN SIX SIGMA PROCESS IMPROVEMENT METHODOLOGIES IN ACUTE HIP FRACTURE CARE OF THE OLDER PERSON

Ronan O'Toole, Cairiona Murphy, Kamie Hogan, Eithne Mullen, Aileen Igoe, Sean Paul Teeling, Dermot Power, Joseph Duggan
Mater Misericordiae University Hospital, Dublin, Ireland

Background: Hip Fracture care is increasingly being recognised as a hospital care quality tracer condition to evaluate a hospital's organisational and interdepartmental clinical effectiveness.

Methods: A 6-month Acute Hip Fracture Care Project was initiated in May 2015 as part of a University affiliated Hospital Lean Academy 'green belt' professional certificate training programme in our hospital. Three key hip fracture standards of care were utilised. These were: 1) proportion of patients operated on within 48 hours of Emergency Department (ED) presentation, 2) proportion of patients administered fascia iliac nerve

block, 3) proportion of patients admitted to the orthopaedic ward within 4 hours of hospital presentation. Following the utilisation of structured Lean Six Sigma process improvement methodologies and extensive stakeholder engagement, key changes implemented included introduction of a hip fracture fast track admission protocol, development of an OrthoGeriatric Electronic Patient Record pre-operative assessment template, and targeted multi-departmental hip fracture care education and Irish Hip Fracture Database awareness dissemination.

Results: Changes were implemented on a phased basis during November 2015. Our hospital's IHFD 2014 report data was compared to 3 months of data on older person hip fractures admitted from November 2015 to January 2016. 1) Proportion of patients operated on within 48 hours improved from 62% (n = 106/169) to 79% (n = 37/47), 2) fascia iliac block utilisation improved from 8.5% (n = 13/154) to 60% (28/47). 3) Percentage of patients admitted to the orthopaedic ward within 4 hours did not improve with a slight decrease from 0.6% (1/172) to 0% (0/47) noted; however, mean time to hospital ward was shown to have improved from 15 hours (over the 10-month period preceding project completion January to October 2015) to 10.45 hours.

Conclusions: Substantial improvements in older person acute hip fracture care can be achieved with the utilisation of Lean Six Sigma process improvement methodologies.