

Maturation of a Comprehensive Multidisciplinary Geriatric Hip Fracture Program Affects In-Hospital Outcomes but not 1-Year Mortality

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Purpose: Our institution has attempted to improve outcomes for geriatric hip fracture patients by instituting a comprehensive multidisciplinary hip fracture program. We previously reported outcomes before, during, and soon after implementation; that study showed that a learning curve existed. Our patients' outcomes including length of stay (LOS) and in-hospital mortality (IHM) deteriorated during implementation of the program. As the program has now matured, we reviewed the net effect on patient outcomes for the 5 years since implementation. The goal of this study was to evaluate the sustained effects of our geriatric hip fracture program on patients' clinical outcomes.

Methods: This is a retrospective study of consecutive geriatric hip fracture patients treated at a busy metropolitan community hospital. A large contemporary study cohort of patients treated after program maturation (May 2011 to Dec 2012) was studied and compared to outcomes previously reported. Patients aged 60 years of age and older with operatively treated low-energy proximal femur fractures were included. Patients underwent workup and fixation of their hip fracture per protocol; demographic and clinical outcome data were recorded. Outcome measures include LOS, IHM, and 1-year mortality. Statistical analysis was performed using χ^2 and analysis of variance testing.

Results: A total of 1268 patients treated in our hip fracture program were studied, 611 treated since the program had matured. These were compared to 211, 212, and 234 patients in the before, during, and soon after implementation cohorts. Demographic and treatment data were similar between study groups. Once established, average LOS was 6 days, significantly shorter than the 7.4, 6.7, and 6.5 day LOS of the prior cohorts ($P < 0.001$). In-hospital mortality after the program's maturation was 1.8%, lower than the previously reported mortality during (5.1%) and early after (3.0%) the start of the program ($P < 0.01$). However, 1-year mortality remained similar through all study periods at 25%, 25%, 20%, and 24.5%, respectively.

Conclusion: Significant improvements in hospital outcome measures, including LOS and IHM, was seen with maturation of our comprehensive, multidisciplinary hip fracture program. This follows up our previous work that showed notably poorer outcomes during and shortly after implementation of a hip fracture program, ie, a learning curve. A well-established comprehensive geriatric hip fracture program improves hospital-based patient outcomes but does not affect 1-year mortality.