

## **A Multidisciplinary Protocol Reduces the Time to Surgery and In-House Mortality for Hip Fracture Patients**

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**Purpose:** Many recent studies have shown that early definitive stabilization of hip fracture in the geriatric population improves outcomes in terms of reduced mortality, length of stay, and incidence of complications. However, multiple administrative, resource, and cultural barriers hinder attempts to reduce time to surgery in most institutions. At one Level II trauma center with a high volume of geriatric hip fractures, we went through a year-long process involving all stakeholders to develop a protocol for prompt treatment of these injuries. The protocol directed emergency department (ED) physicians to identify which patients needed cardiac evaluation and to initiate that process based on Metabolic Equivalent of Task (MET) and Revised Cardiac Risk Index (RCRI) scores. Patients who did not meet specific criteria for delay were immediately posted for surgery, and taken from the ED to the operating room (OR) whenever possible.

**Methods:** Utilizing the trauma center's American College of Surgeons Trauma Quality Improvement Program database we prospectively reviewed the time to surgery as well as outcome variables before and after institution of a protocol developed by a multidisciplinary team of physicians, staff, and administration.

**Results:** In the first year after institution of the protocol, we were able to reduce the time to surgery from a median value of 31.7 hours to 24.9 hours, and increase the percentage of patients treated within 24 hours from 45% to 64%. Over that same time period, the in-hospital mortality for these patients dropped from 2.95% to 0.51%. In the second year of the protocol, the time to surgery dropped further, to 21 hours; the percentage treated within 24 hours rose to 90%, and the in-house mortality dropped to 0%.

**Conclusion:** In our Level II trauma center, a multidisciplinary protocol involving the ED, the OR, the orthopaedic team, and consultant medical services, and managed by the trauma team, was able to substantially reduce the time from admission to definitive stabilization for hip fracture patients with concurrent significant reductions in mortality. This reflected an improvement in a habitual care culture that required buy-in from all physician specialties involved in the care of these patients.