

**Outcomes in Hip Fracture Surgery in Geriatric Patients Receiving Direct Oral Anticoagulation: Should We Delay?**

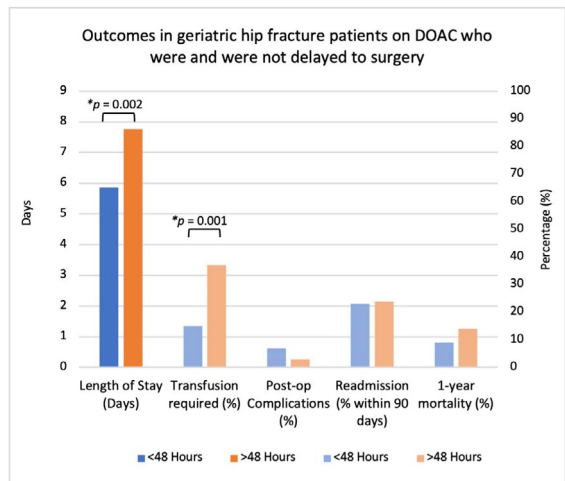
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**Purpose:** Direct oral anticoagulants (DOACs) have attracted providers and patients given their improved safety, rapid onset, and no routine monitoring requirement. Unfortunately, reversal agents are cost-prohibitive. As a result, DOAC discontinuation guidelines have been developed for elective surgeries to manage bleeding risk. No guidelines for emergent operations exist nor definitive recommendations to delay surgery. This has led to frequent delays to hip fracture surgery in patients on DOACs. Our study compares outcomes in patients on DOACs treated within 48 hours of last dose to those with surgical delays >48 hours.

**Methods:** A retrospective review of patients aged 65+ years on DOACs prior to hip fracture treated at 3 Level I trauma centers between 2010 and 2018 was performed. Descriptive and inferential statistics were used to analyze results. Patient charts were evaluated to confirm delay in surgery due to DOACs, with delays for other reasons excluded.

**Results:** A total of 205 geriatric hip fracture patients on DOACs were identified, with 71 patients undergoing surgery <48 hours following final preoperative DOAC dose and 134 patients undergoing surgery >48 hours after. Both cohorts were similar in age, gender distribution, and Charlson Comorbidity Index (CCI), with an average age of 82.6 years (standard deviation [SD]± 7.4), 66% female population, and CCI of 6.4 (SD ± 1.9) for the early cohort and 81.6 years (SD ± 8.2), 61% female population, and CCI of 6.5 (SD ± 2.5) for the delayed cohort. Patients treated after 48 hours were more likely to require transfusion (odds ratio [OR] 3.02, 95% confidence interval [CI] 1.45, 6.23; P = 0.003). Patients treated within 48 hours had significantly shorter lengths of stay (5.9 days vs 7.6 days, P<0.005). There was no difference in estimated blood loss, anemia, complications, reoperations, readmissions, 90-day mortality, or 1-year mortality (Figure 1).

**Conclusion:** Geriatric patients with hip fractures undergoing surgery within 48 hours of their last dose of direct oral anti-coagulants did not experience increased bleeding, need for transfusion, perioperative complications, or mortality and required less transfusions than those who were delayed to surgery. Additionally, they experienced significantly shorter lengths of stay. Previous studies show delays to hip fracture surgery >48 hours are associated with increased mortality. Providers should consider early intervention in this population rather than adherence to elective procedure guidelines.



See the meeting website for complete listing of authors' disclosure information. Schedule and presenters subject to change.