Vitamin D Deficiency in the UCSF Hip Fracture Population

Drew Lansdown, MD; Amanda Whitaker, MD; Rosanna Wustrack, MD; Erik Hansen, MD; Aenor Sawyer, MD
Department of Orthopaedic Surgery

The Problem
Fragility fractures are a common problem associated with significant short and long-term morbidity. The initiation of medical management in the acute setting may improve utilization of this optimal medical management and has been recommended by the American Academy of Orthopaedic Surgeons as the standard of care.

Project Goal
Our goal is to measure 25-OH Vitamin D levels upon admission for all patients with acute hip fractures. Additionally, we aim to treat patients with appropriate vitamin D and calcium supplementation if deficient. Our goal was 70% over the course of the year.

Project Plan
Information sessions were held each rotation block for residents with reminders. A spreadsheet of hip fracture patients was collected and the QI resident reviewed vitamin D levels and treatment for recording purposes. Reminders were sent with positive encouragement and updates on progress.

Results / Progress to Date

- Vitamin D screening was achieved in 86.4% of patients with acute hip fractures.
- 91.4% of our hip fracture patients who were screened were vitamin D deficient

![Graph showing Hip Fracture Patients Screened and Treated for Vitamin D Deficiency]

Lessons Learned
- This is the second year for this QI project in our department based on screening and treating vitamin D deficiency.
- Vitamin D deficiency is a significant problem in patients treated for an acute hip fracture.
- Through consistent reminders and encouragement, we have demonstrated that a housestaff-led project can impact meaningful change in patient care.

Moving Forward
- We have achieved our goal of screening and treating vitamin D deficiency in greater than 70% of patients with acute hip fractures.
- This initiative will be encouraged in future years, especially given the high prevalence of vitamin D deficiency in this population.
- We plan to adapt our quality improvement model of frequent reminders and encouragement from residents to a new project for the next academic year.