AAOS American Academy of Orthopaedic Surgeons
American Association of Orthopaedic Surgeons

*Position Statement*

# Orthopaedic Care of Patients with Fragility Fractures

*This Position Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.*

In 2011, care of the geriatric hip fracture (the hallmark fracture of fragile bone) was the third most expensive musculoskeletal diagnosis for the US Centers for Medicare and Medicaid Services (CMS), following only total hip & knee arthroplasty. The number of patients at risk for presenting with fragile bone resulting in hip, vertebral, proximal humerus, or distal radius fragility fractures are increasing as the population ages. It is important that these patients not only receive optimal treatment for the presenting fracture, but also for the prevention of future fractures. Many strategies to provide optimal care for patients who present with acute fragility fracture have been developed. Similarly, risk assessment tools to predict risk of a secondary fragility fracture are available, and interventions to treat patients at risk for subsequent fragility fracture are well described and cost effective. While there have been significant advancements in the surgical management of fragile bone, avoiding fracture is in the best interest of the patient and society. Unfortunately, despite the compelling evidence that treatment of patients with fragility fractures can reduce the risk of future fractures by up to 50%, the overwhelming majority of patients with fragility fractures are not effectively treated to prevent a secondary fracture.

This backdrop provides Orthopaedic Surgeons with an opportunity to continue their leadership role in two critical issues, 1) ensuring the use of best practices in patients with potential fragility fractures to suspect and detect fragile bone disease and 2) enter patients confirmed to have such conditions in treatment programs that protect against secondary fractures.

The American Academy of Orthopaedic Surgeons (AAOS), American Orthopaedic Association (AOA), Orthopaedic Trauma Association (OTA) and the International Geriatric Fracture Society (IGFS) developed this position statement to engage every orthopaedic surgeon in providing optimal care for patients with a fragility fracture and ensuring essential evaluation and treatment of patients identified as being at risk for secondary fractures. The following are key elements of this engagement.

- Disseminate ***best practices*** for patient management of patients with fragility fractures as identified in the Critical Care Pathways, Fracture Liaison Services, Clinical Practice Guidelines (CPG), Appropriate Use Criteria (AUC) and Performance Measures (PM) available for this population.

- Disseminate and implement ***best practices*** in secondary fracture prevention for patients who present with a fragility fracture including appropriate screening and monitoring of bone mineral density. Broad adoption of these evidence based care algorithms using established criteria for a quality geriatric fracture program have been outlined by IGFS's Critical Care Pathways, AOA's Own the Bone Program (OTB), and the AAOS' Hip Fracture Clinical Practice Guideline (CPG), as well as AAOS' Appropriate Use Criteria (AUC) and Performance Measures (PM) quality documents.

- Develop and implement data registries that track the complete processes of care as well as patient demographics and outcome. These registries should accomplish two goals: 1) Tracking hospital reported data that include patient demographics, fracture type, appropriate in-patient and out-patient outcome measures for hip and fragility fracture care, and 2) qualified clinical data registry (QCDR) reporting elements which will allow surgeons who manage fragility fractures to document their appropriate delivery of care. Ultimately, systems to track outpatient data registries is aspirational but necessary to address the continuum of preventing secondary fragility fractures.

- Disseminate educational materials to aid in identifying at-risk patient as well as institution and of medical therapy for fracture prevention. The initiation of evaluation and treatment to prevent secondary fractures is within the skill set of every orthopaedic surgeon. However, it is likely that the care team will also include internists, family practitioners, mid-level care providers (Physician Assistants and Advanced Practice Nurses), radiologists, endocrinologists as well as tertiary care physicians trained in bone mineral research in order to accomplish the full spectrum of necessary care. Education should be readily available from leading associations for Orthopaedic Surgeons, Physician Assistants and Advanced Nurse Practitioners which delineate how to monitor therapy with bone protective medication and bone mineral radiographic and biochemical assessment.

- The AAOS, AOA, IGFS and OTA are committed to partnering with the Centers for Medicare and Medicaid Services (CMS) in reducing the variation in fragility fracture care. In particular, hip fracture care (as distinct from joint arthroplasty) has unique treatment needs and requires a clearly articulated care pathway. Potential focus areas for the partnership, in concert with the American College of Surgeons (ACS), Center for Medicare and Medicaid Innovation (CMMI) and CMS, include developing a hip fracture bundle and criteria for Medical Home or Medical Neighborhood programs (based on proven Fracture Liaison Service and critical pathways) for fragility fracture care. This should include appropriate mechanisms to ensure fragility fracture risk assessment and long term care coordination which encourages adherence to recommended therapies and implementation of a falls prevention program supported by physical therapy to improve mobility.



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