Does the Orthopaedic Surgeon Really "Own the Bone?"

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Purpose: The American Orthopaedic Association established the "Own the Bone" program in 2009 to promote a more active involvement of orthopaedic surgeons in managing osteoporosis following fragility fractures. This study investigates the effectiveness of the program by examining the changes in yearly dual x-ray absorptiometry (DXA) bone scans and bisphosphonate prescriptions since the program's inception.

Methods: A longitudinal cohort study database (PearlDiver Inc) was queried for patients (age 55-85) who sustained a hip fracture requiring surgical intervention from 2010-2022. The annual rate of DXA scan within 1 year of fracture fixation and bisphosphonate treatment within 6 weeks and 1 year were compared. Other independent variables used for comparison were age, gender, obesity, tobacco use, and alcohol abuse.

Results: A total of 227,039 patients (mean age male patients 73.7 ± 6.9 and mean age female patients 74.4 ± 6.2) met inclusion criteria. Patients receiving DXA within 1 year of fracture fixation were younger (72.0 ± 7.2 vs 74.3 ± 6.4) and more likely to be female than male (6.5% vs 3.0%). Patients who use tobacco, abuse alcohol, and are obese were all more likely to obtain DXA. Comparison of annual rate of DXA scan (2010-2019) showed no significant change, ranging from 5.5% to 6.2%. Bisphosphonate prescriptions within 1 year of fracture fixation decreased from 7.5% in 2010 to 6.0% in 2019. Less than 2% of the patients received bisphosphonates within 6 weeks of fracture fixation and rates did not change over the year compared. Those patients receiving bisphosphonates were younger (72.9 ± 6.4 vs 74.2 ± 6.4), more likely to be female (8.6% vs 2.2%), obese (7.5% vs 6.3%), and tobacco users (7.0% vs 6.1%).

Conclusion: The Own the Bone program has not positively changed physician behaviors in treating patients with osteoporosis. This program may not provide adequate incentive for the physician’s time or consider that surgeons lack the bandwidth to provide extensive osteoporosis counseling following fracture. Ultimately, leaving osteoporosis counseling and treatment to orthopaedic physicians alone is not improving outcomes. Instead, health-care institutions should consider a systemic program that promotes teamwork between medical specialties to help increase the effectiveness in providing osteoporosis care.