
INTRODUCTION: Undertreatment of osteoporosis is common, even for high-risk patients. Among the reasons for undertreatment may be a clinician’s perception of a lack of treatment benefit, particularly in light of patients’ expected future mortality. Among US Medicare beneficiaries, we evaluated the risk for second fracture versus death in the 5 years following a hip, clinical vertebral, and wrist/forearm fracture.

METHODS: Using data from 1999 to 2006 for a random 5% sample of US Medicare beneficiaries, we identified individuals who experienced an incident hip, clinical vertebral, or wrist/forearm fracture in 2000 or 2001. We evaluated the risk for a second incident fracture versus death in the following 5 years. Results were stratified by age, gender, race/ethnicity, and medical comorbidities. In light of the competing mortality risk, and assuming 30% efficacy of an osteoporosis medication to prevent a second fracture, we calculated the number of individuals needed to treat (NNT) for 5 years after first fracture to prevent 1 additional subsequent fracture.

RESULTS: We identified 18,853, 12,751, and 7635 persons with an incident hip, clinical vertebral, and wrist/forearm fracture, respectively. Although the 5-year risk of death
usually exceeded the risk for second fracture across age, gender, racial groups, and primary fracture type (median ratio of death to second fracture=1.4, interquartile range 0.9, 2.0), the 5-year risk for second fracture was high, varying from a low of 13% to a high of 43%. Across demographic groups, the NNT to prevent a second fracture was low, ranging from 8 to 46.

CONCLUSION: Among older persons with hip, clinical vertebral, or wrist/forearm fracture, although the risk for death was usually greater than the risk for a second fracture, both were high. The relatively low NNT to prevent 1 additional subsequent fracture fell within a range generally considered acceptable for secondary prevention strategies.