

OSTEOSCOOP

News on current events in osteoporosis and rheumatology

FRAX and risk of Vertebral Fractures: the Fracture Intervention Trial

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The validity of the WHO 10-yr probability of major osteoporotic fracture model (FRAX) for prediction of vertebral fracture has not been tested. The authors of a recent study [1] analyzed how well FRAX for major osteoporotic fractures (with and without femoral neck BMD) predicted the risk of vertebral fracture. They also compared the predictive validity of FRAX, femoral neck BMD, and prevalent vertebral fracture detected by radiographs at baseline alone or in combination to predict future vertebral fracture. They analyzed data from the Fracture Intervention Trial placebo groups (3.8-y follow-up, n = 3221).

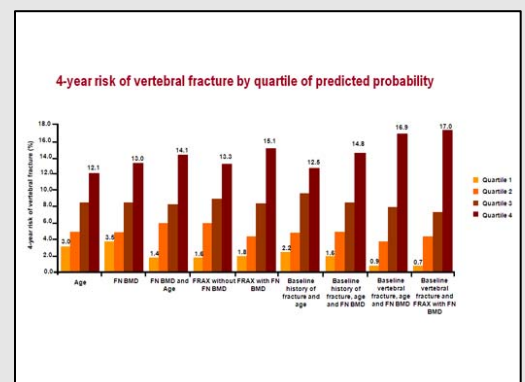
FRAX predicted incident radiographic vertebral fracture. The predictive power was significantly greater for FRAX with femoral neck BMD than FRAX alone. Prevalent vertebral fracture plus age and femoral neck BMD predicted incident radiographic vertebral fracture as well as a combination of prevalent vertebral fracture and FRAX. However, baseline vertebral fracture status plus age and femoral neck BMD predicted incident radiographic vertebral fracture significantly better than FRAX with femoral neck BMD.

FRAX for major osteoporotic fractures (with and without femoral neck BMD) predicts vertebral fracture. However, once femoral neck BMD and age are known, the eight additional risk factors in FRAX do not significantly improve the prediction of vertebral fracture. A combination of baseline radiographic vertebral fracture, femoral neck BMD, and age is the strongest predictor of future vertebral fracture.

1. Donaldson MG et al. *J Bone Miner Res.* 2009;24:1793–1799.

FRAX and risk of Vertebral Fractures

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