

key points

SELECTED BY

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One in two women and one in five men over 50 will sustain an osteoporotic fracture.

The risk of fracture increases progressively with decreasing bone mineral density (BMD). However, the use of BMD alone to predict fracture risk has a high specificity but low sensitivity, and most fractures occur in patients with a BMD T-score higher than -2.5. Prediction of fracture risk can be improved by the use of clinical risk factors independent of BMD. These risk factors, alone or in combination with BMD, form the basis of the WHO-supported FRAX tool for predicting fracture risk.

The recent guideline from the National Osteoporosis Guideline Group is linked to the FRAX tool and includes graphs to show intervention thresholds based on age and 10-year fracture risk.

A number of drug treatments have been shown to reduce vertebral fracture risk when given with calcium and vitamin D supplements. Alendronic acid, risedronate and teriparatide are also approved for men at high risk of fracture, and alendronic acid, risedronate, etidronate and teriparatide for glucocorticoid-induced osteoporosis.

Alendronic acid is the first-line treatment in the majority of cases because of its broad spectrum of efficacy across fracture sites. The once weekly formulation is preferred by the vast majority of patients. If the patient is unable to take or tolerate alendronic acid, other bisphosphonates, strontium ranelate or raloxifene can be used.

Falls risk assessment and prevention is important in the management of osteoporosis. Other measures include maintenance of mobility, advice about smoking cessation and alcohol intake, and correction of vitamin D deficiency.