Management and Prevention of Osteoporosis 2015

The following guideline recommends assessment and management of patients to reduce fracture risk due to osteoporosis.

Eligible Population	Key Components	Recommendation and Level of Evidence	Frequency
Patients at potential risk for osteoporosis	Assessment	**Assess risk factors to perform FRAX:** • Age • Sex • Depo-Provera use • Weight (kg) • Family history of osteoporosis • Height (cm) • Drugs to treat malignancy • Previous fracture • Inadequate physical activity • Parent fractured hip • Loss of height (>3.81 cm) • Current smoking • Glucocorticoids • Rheumatoid arthritis • Secondary osteoporosis [type 1 diabetes, osteogenesis imperfecta in adults, untreated long-standing hyperthyroidism, hypogonadism or premature menopause (<45 years), chronic malnutrition, or malabsorption, and chronic liver disease) • Alcohol 3 or more units per day Femoral neck BMD (g/cm^2) **Perform bone mineral density (BMD) testing using DXA for:** • White women > 65 years regardless of risk factors • Men/women with fracture risk (10-year probability of fracture using FRAX of 9.3%) • On corticosteroids	Adult height assessments at periodic well exams
	Core principles of Treatment and Prevention	• Dietary calcium 1200 mg/d and 800 - 1000 IU vitamin D_3 **[B]** • Weight-bearing exercise **[A]** • Address modifiable risk factors above	There is insufficient evidence on the optimal screening interval in a woman with previous normal BMD

Patients requiring therapy to reduce high risk of non-traumatic fractures	Patient Selection for Pharmacological Management based on risk	• Treat patients on corticosteroid therapy with a T-score < -1.0. **[A]** • Treat patients with a history of an osteoporotic fracture or fracture of the hip or spine. **[A]** • Patients without a history of fractures but with a T-score of -2.5 or lower. **[A]** • Patients with a T-score between -1.0 and -2.5 if FRAX major osteoporotic fracture probability is > 20% or hip fracture probability is > 3%. **[A]**	
	Pharmacological Management	• Consider oral bisphosphonate therapy[1]. A drug holiday may be considered after 3-5 years. • If not tolerated or ineffective, consider other agents. • Consider referral to endocrine or bone and mineral metabolism specialist if patient does not tolerate treatment or shows progression or recurrent fracture after 2 years on treatment.	
Patients with fracture	Diagnosis and Treatment	**Calculate FRAX and record result:** • If >20% prediction, prescribe a drug to treat osteoporosis (e.g. bisphosphonate) • If <20% prediction, obtain a BMD if not done in the past year. Re-calculate FRAX with BMD result, and treat as above. **Fall prevention** **Optimizing calcium and vitamin D intake**	

Use caution in patients with active upper GI disorders. Take medication on an empty stomach with water, remain upright, no food or beverage for 30 minutes, (60 minutes for Ibandronate).
Bisphosphonate drug holiday who, when and how long **(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3707342/#!po=0.943396)**
Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert **panel**