

Health Plan of Michigan Clinical Practice Guideline

Management of Osteoporosis

The following guideline recommends assessment and management of patients with osteopenia and osteoporosis.

Eligible Population	Key Components	Recommendation and Level of Evidence	Frequency								
<ul style="list-style-type: none"> Women age \geq 65 regardless of risk factors [B] Women age 60-64 at increased risk Anyone on chronic corticosteroid treatment Anyone with atraumatic fractures 	Assessment	<ul style="list-style-type: none"> Assess for loss of height (> 1.5 inches) and back pain Assess other risk factors: <p>Modifiable:</p> <ul style="list-style-type: none"> Current cigarette smoking Low body weight (< 127 lbs.) Estrogen deficiency Premature menopause Excessive thyroid hormone replacement Chronic corticosteroid therapy Low calcium intake (life-long) Alcoholism Uncorrected visual impairment Inadequate physical activity Recurrent falls <p>Non-Modifiable:</p> <ul style="list-style-type: none"> Personal or family history of fragility Family history of osteoporosis Caucasian or Asian race Age Gender Poor health/frailty Dementia Hypogonadism in males Fracture without substantial trauma <ul style="list-style-type: none"> Bone mineral density (BMD) testing using DEXA spine & total hip 	<ul style="list-style-type: none"> Adult height assessments annually and at periodic well exams. BMD test once for initial diagnosis [D] 								
	Core Principles of Treatment and Prevention	<p>All patients in the eligible population should ensure they maintain:</p> <ul style="list-style-type: none"> Dietary calcium 1200 – 1600 mg/day and 400-800 units vitamin D [B] Weight-bearing exercise [A] Address risk factors above 	<ul style="list-style-type: none"> BMD testing more often than every two years is not useful Consider rechecking BMD after at least two years of pharmacologic treatment to monitor effectiveness [D]. 								
Patients requiring therapy to prevent osteoporosis	Pharmacological Management	<ul style="list-style-type: none"> Treatment to prevent fractures in osteopenia [T-score between -1 and -2.0] without risk factors is not useful Treat patients on corticosteroid therapy with a T-score \leq -1.0 [A] Treat patients with osteopenia and a T-score between -2.0 and -2.5 at increased risk [D] 	<table border="1"> <tr> <td>Alendronate (Fosamax)</td> <td>10 mg/d or 70 mg/week^{1,2}</td> </tr> <tr> <td>Raloxifene (Evista)</td> <td>60 mg/d</td> </tr> <tr> <td>Risedronate (Actonel)</td> <td>5 mg/d or 35 mg/ week^{1,2}</td> </tr> <tr> <td>Ibandronate (Boniva)</td> <td>2.5 mg/d or 150 mg/month</td> </tr> </table>	Alendronate (Fosamax)	10 mg/d or 70 mg/week ^{1,2}	Raloxifene (Evista)	60 mg/d	Risedronate (Actonel)	5 mg/d or 35 mg/ week ^{1,2}	Ibandronate (Boniva)	2.5 mg/d or 150 mg/month
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Patients with osteoporosis [T-score < -2.5]	Pharmacological Management	<ul style="list-style-type: none"> Osteopenia associated with atraumatic fracture should be treated as osteoporosis [D] 	<table border="1"> <tr> <td>Alendronate (Fosamax)</td> <td>10mg/d or 70 mg/week^{2,3}</td> </tr> <tr> <td>Raloxifene (Evista)</td> <td>60 mg/d</td> </tr> <tr> <td>Risedronate (Actonel)</td> <td>5 mg/d or 35 mg/week^{2,3}</td> </tr> </table>	Alendronate (Fosamax)	10mg/d or 70 mg/week ^{2,3}	Raloxifene (Evista)	60 mg/d	Risedronate (Actonel)	5 mg/d or 35 mg/week ^{2,3}		
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	Referral	If patient does not tolerate treatment or shows progression or recurrent fracture after 2 years on treatment, consider referral to a specialist.									

¹Use Caution in patients with active upper GI disorders

²Take medication on an empty stomach with water, remain upright for 30 minutes, no food or beverage for 30 minutes, (60 minutes for Ibandronate)

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

This guideline represents core management steps. It is based on The Guide to Clinical Preventive Services 2005, Recommendations of the U.S. Preventive Services Task Force (www.preventiveservices.ahrq.gov) and the National Osteoporosis Foundation, 2003 Physician's Guide to Prevention and Treatment of Osteoporosis (www.nof.org). Individual patient considerations and advances in medical science may supercede or modify these recommendations.