

## Pharmacologic Agents for Treatment of Osteoporosis

### SCAN Formulary Drugs

Medication	2020 Formulary Status		2021 Formulary Status		Dosing & Administration	Adverse Drug Reactions
	Tier	UM	Tier	UM		
<b>Biphosphonates</b>						
<i>alendronate tabs</i>	1		1		<ul style="list-style-type: none"> <li>GIO* prevention for men: 5mg PO QD</li> <li>GIO prevention: 5mg PO QD for women receiving estrogen and 10mg PO QD in women not receiving estrogen</li> </ul>	Abdominal pain, esophagitis, bone pain, muscle pain, nausea
<i>alendronate oral soln</i>	2		2		<ul style="list-style-type: none"> <li>Osteoporosis treatment in men: 10mg PO QD or 70mg PO QW (every week)</li> <li>PMO* prevention: 35 mg PO QW or 5mg PO QD</li> <li>PMO treatment: 70mg PO QW or 10mg PO QD</li> </ul>	Not recommended if CrCl is less than 35 ml/min
<i>ibandronate oral</i>	2		2		Oral: PMO prevention & treatment: 150mg PO monthly or 2.5mg PO QD	Nausea, fever, vomiting, dyspnea (not recommended if CrCl is less than 35 ml/min)
<i>risedronate</i>	3	[ST]	3	[ST]	<ul style="list-style-type: none"> <li>GIO (men and women): 5mg PO QD</li> <li>Osteoporosis treatment in men: 35mg PO QW</li> <li>PMO prevention &amp; treatment: 5mg PO QD or 35mg PO QW or 75mg/day PO for 2 days of each month or 150mg PO monthly.</li> </ul>	Abdominal pain, arthralgia, diarrhea, nausea, rash
<b>Selective Estrogen Receptor Modifying Agents</b>						
<i>raloxifene</i>	3	[QL]	3	[QL]	PMO prevention & treatment: 60mg PO QD	Hot flashes, arthralgia, sinusitis, flu like syndrome, headache

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	Tier	UM	Tier	UM		
<b>Estrogens (Indicated for Osteoporosis prevention)</b>						
<i>estradiol oral,</i>	2	[PA]	2	[PA]	0.5mg PO daily	Peripheral edema, nausea/vomiting, breast tenderness
<i>estradiol patches</i>	3	[PA]	3	[PA]	Transdermal system: start at 0.025mg per week	Peripheral edema, nausea/vomiting, breast tenderness
<i>estradiol/norethindrone, mimvey, mimvey lo</i>	3	[PA]	3	[PA]	Start at 0.5mg /0.1mg PO QD	Peripheral edema, nausea/vomiting, breast tenderness
<i>jinteli</i> (norethindrone acetate/ ethinyl estradiol)	3	[PA]	3	[PA]	1mg/5mcg PO QD	Peripheral edema, nausea/vomiting, breast tenderness
PREMARIN ORAL (conjugated estrogens)	4	[PA]	4	[PA]	0.3 – 0.625 mg PO QD	Peripheral edema, nausea/vomiting, breast tenderness
PREMPRO, PREMPHASE (medroxy-progesterone/ conjugated estrogens)	4	[PA]	4	[PA]	Start at 0.3mg/1.5mg PO QD	Peripheral edema, nausea/vomiting, breast tenderness

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	Tier	UM	Tier	UM		
<b>Calcitonin</b>						
<i>calcitonin-salmon nasal</i>	2		2		1 spray (200 IU) / day, alternating nostrils	Nasal symptoms (e.g., nasal crusts, dryness, redness, nasal sores, irritation, itching, soreness, infection)
<b>Parathyroid Hormone</b>						
FORTEO (teriparatide)	5	[PA]	5	[PA]	GIO (men and women), PMO treatment: 20mcg SC daily	Hypertension, arthralgia, rhinitis, nausea, dizziness, pain, asthenia, headache
<i>teriparatide</i>	5	[PA]	5	[PA]	GIO (men and women), PMO treatment: 20mcg SC daily	Hypertension, arthralgia, rhinitis, nausea, dizziness, pain, asthenia, headache
TYMLOS (abaloparatide)	5	[PA]	5	[PA]	80mcg SC daily	Hypercalciuria, dizziness, nausea, headache, and palpitations
<b>RANK Ligand (RANKL) Inhibitor</b>						
PROLIA ( <i>denosumab</i> )	4	[PA]	4	[PA]	Treatment of PMO and Osteoporosis in men: 60mg SC every 6 months	Back pain, arthralgia, extremity pain

\*GIO: glucocorticoid-induced osteoporosis

PMO: postmenopausal osteoporosis

Brand-name drugs are capitalized and generic drugs are listed in lower-case italics

[PA] = Prior Authorization

[BvsD] = B versus D determination

[QL] = Quantity Limit

[ST] = Step Therapy

## Osteoporosis Guidelines References

Osteoporosis Guidelines adapted from:

1. Tu KN, Lie JD, Wan CKV, et al. Osteoporosis: A Review of Treatment Options. *P&T*. 2018;43(2):92–104.
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4. Cosman, F., de Beur, S.J., LeBoff, M.S. et al. Clinician's Guide to Prevention and Treatment of Osteoporosis. *Osteoporos Int* (2014) 25: 2359. doi:10.1007/s00198-014-2794-2
5. Drug Facts & Comparisons. (2020, August). Retrieved from [www.online.factsandcomparisons.com](http://www.online.factsandcomparisons.com). Wolters Kluwer Health: Deventer, The Netherlands.
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7. American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. *J Am Geriatr Soc* 2015 Nov; 63(11):2227-46.
8. “Quality Indicators for Care of Osteoporosis in Vulnerable Elders” *JAGS*, 55:S392-S402 2007.
9. Algorithm of clinical and BMD information to model the 10-year fracture probability in men and women  
<http://www.shef.ac.uk/FRAX>.