

**Osteoporosis Agents**  
**Prolia (denosumab)**  
**Xgeva (denosumab)**  
**Effective 01/06/2025**

<b>Plan</b>	<input checked="" type="checkbox"/> MassHealth UPPL <input type="checkbox"/> Commercial/Exchange	<b>Program Type</b>	<input checked="" type="checkbox"/> Prior Authorization <input type="checkbox"/> Quantity Limit <input type="checkbox"/> Step Therapy
<b>Benefit</b>	<input type="checkbox"/> Pharmacy Benefit <input checked="" type="checkbox"/> Medical Benefit		
<b>Specialty Limitations</b>	N/A		
<b>Contact Information</b>	<b>Medical and Specialty Medications</b>		
	All Plans	Phone: 877-519-1908	Fax: 855-540-3693
<b>Contact Information</b>	<b>Non-Specialty Medications</b>		
	All Plans	Phone: 800-711-4555	Fax: 844-403-1029
<b>Notes</b>	<p><b>Prolia and Xgeva</b> are also available on the pharmacy benefit. Please see the <a href="#">MassHealth Drug List</a> for coverage and criteria.</p> <p>Additional agents from this class are available through the pharmacy benefit. Please see the <a href="#">MassHealth Drug List</a> for coverage and criteria.</p>		

### Overview

Denosumab is a type of monoclonal antibody used to treat osteoporosis and prevention of bone issues caused by certain cancers. Denosumab is available as two branded products (Prolia and Xgeva), each with specific FDA indications.

### Approval Diagnosis:

- Treatment/prevention of postmenopausal osteoporosis in women (Prolia)
- Treatment of osteoporosis in men (Prolia)  
Treatment/prevention of glucocorticoid-induced osteoporosis in men and women (Prolia)
- Treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer (Prolia)
- Treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for non-metastatic prostate cancer (Prolia)
- Prevention of skeletal-related events secondary to bone metastases in cancer related to solid tumors and in multiple myeloma (Xgeva)
- Treatment of giant cell tumor of the bone (Xgeva)
- Treatment of hypercalcemia of malignancy (Xgeva)

### Coverage Guidelines

Authorization may be granted for members who are new to the plan currently receiving treatment with Prolia or Xgeva excluding when the product is obtained as samples or via manufacturer's patient assistance programs.

**OR**

Authorization may be granted for members when all the following drug-specific criteria are met, and documentation is provided:

Treatment/prevention of osteoporosis

**Prolia (denosumab)**

Prescriber provides documentation of **ALL** of the following:

1. Appropriate diagnosis
2. **ONE** of the following:
  - a. Physician attestation of inadequate response to an adequate trial or adverse reaction to **ONE** oral bisphosphonate (see appendix for details)
  - b. Contraindication to **ALL** oral bisphosphonates (see appendix for details)
  - c. Member is at very high risk for fracture indicated by at least **ONE** of the following:
    - a. History of fracture within the past 12 months
      - i. History of fractures while on osteoporosis therapy
      - ii. History of multiple fractures
      - iii. History of fractures while on drugs causing skeletal harm (e.g., long-term glucocorticoids)
      - iv. T-score less than -3.0
      - v. High risk for falls
      - vi. History of injurious falls
      - vii. Very high fracture probability by FRAX (fracture risk assessment tool) or other validated fracture risk algorithm

Treatment/prevention of glucocorticoid-induced osteoporosis

**Prolia (denosumab)**

Prescriber provides documentation of **ALL** of the following:

1. **ONE** of the following:
  - a. Appropriate diagnosis
  - b. Chronic glucocorticoid use determined by claims for >5 mg of prednisone equivalent for ≥ 3 months in claims history
2. **ONE** of the following:
  - a. Physician attestation of inadequate response to an adequate trial or adverse reaction to **ONE** oral bisphosphonate (see appendix for details)
  - b. Contraindication to oral bisphosphonates (see appendix for details)
  - c. Member is at very high risk for fracture indicated by at least **ONE** of the following:
    - a. History of fracture within the past 12 months
      - i. History of fractures while on osteoporosis therapy
      - ii. History of multiple fractures
      - iii. History of fractures while on drugs causing skeletal harm (e.g., long-term glucocorticoids)
      - iv. T-score less than -3.0
      - v. High risk for falls
      - vi. History of injurious falls
      - vii. Very high fracture probability by FRAX (fracture risk assessment tool) or other validated fracture risk algorithm

Prevention of skeletal-related events secondary to bone metastases in cancer related to solid tumors and in multiple myeloma;

Treatment of hypercalcemia of malignancy;



Treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer;

Treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for non-metastatic prostate cancer

**Prolia (denosumab)**

1. Appropriate diagnosis
2. **ONE** of the following:
  - a. Physician attestation of inadequate response to an adequate trial or adverse reaction to **ONE** bisphosphonate (see appendix for details)
  - b. Contraindication to **ALL** oral and injectable bisphosphonates

**Xgeva (denosumab)**

1. Diagnosis is **ONE** of the following:
  - a. Prevention of skeletal-related events secondary to bone metastases in cancer related to solid tumors
  - b. Prevention of skeletal-related events secondary to multiple myeloma
  - c. Treatment of hypercalcemia of malignancy
2. Prescriber is an oncologist, hematologist, or orthopedic specialist or has provided consult notes from an oncologist, hematologist, or orthopedic specialist
3. Appropriate dosing

Treatment of Giant Cell Tumor of the bone (GCTB)

**Xgeva (denosumab)**

1. Appropriate diagnosis
2. **ONE** of the following:
  - a. Documentation that the tumor or metastases are unresectable
  - b. Documentation that surgical resection is likely to result in severe morbidity
  - c. Documentation that surgery is not an option at this time
3. Dose and frequency are appropriate for GCTB

**Continuation of Therapy**

Resubmission by prescriber will infer positive response to therapy.

**Limitations**

1. Approvals will be granted for 1 year.

**Appendix**

**Adverse reactions to oral bisphosphonates**

- Upper gastrointestinal effects (i.e. dysphagia, esophagitis, esophageal or gastric ulcers)
  - A gastrointestinal adverse event to any oral bisphosphonate will be considered as having met the trial requirement for oral alendronate where noted.
- Hypersensitivity to any component

**Contraindications to oral bisphosphonates**

- Abnormalities of esophagus which delay esophageal emptying (i.e. stricture, achalasia, erosive esophagitis, gastric ulcers)
- Inability to stand or sit upright for at least 30 to 60 minutes



- A diagnosis of GERD is not a contraindication to oral bisphosphonate use; however, severe esophagitis, Barrett’s esophagus and esophageal ulcerations are reasons to by-pass a trial.

### **Contraindications/Precautions to ALL (oral and IV) bisphosphonates**

Rationale to bypass a trial of bisphosphonates include:

- Severe renal impairment (CrCl < 35 ml/min)
- Severe dental disease (with or without frequent dental extractions)
- Severe gastrointestinal disorders (i.e. severe ulcerative colitis or Crohn’s disease)

### **References**

1. Prolia (denosumab) [prescribing information]. Thousand Oaks, CA: Amgen Inc; March 2020.
2. Xgeva (denosumab) [prescribing information]. Thousand Oaks, CA: Amgen Inc; June 2020
3. Hu MI, Glezerman IG, Leboulleux S, et al. Denosumab for treatment of hypercalcemia of malignancy. *J Clin Endocrinol Metab* 2014; 99:3144.
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5. Eastell R, Rosen CJ, Black DM, et al. Pharmacological Management of Osteoporosis in Postmenopausal Women: An Endocrine Society\* Clinical Practice Guideline. *J Clin Endocrinol Metab* 2019; 104:1595
6. Terpos E, Zamagni E, Lentzsch S, et al. Treatment of multiple myeloma-related bone disease: recommendations from the Bone Working Group of the International Myeloma Working Group. *Lancet Oncol* 2021; 22:e119
7. Terpos E, Zamagni E, Lentzsch S, et al. Treatment of multiple myeloma-related bone disease: recommendations from the Bone Working Group of the International Myeloma Working Group. *Lancet Oncol* 2021; 22:e119
8. Salagame U, Kliwer EV, Demers A, et al. Trends in Prescribing Menopausal Hormone Therapy and Bisphosphonates in Australia and Manitoba, Canada and Adherence to Recommendations. *J Womens Health (Larchmt)* 2020; 29:177
9. Saag KG, Pannacciulli N, Geusens P, et al. Denosumab Versus Risedronate in Glucocorticoid-Induced Osteoporosis: Final Results of a Twenty-Four-Month Randomized, Double-Blind, Double-Dummy Trial. *Arthritis Rheumatol* 2019; 71:1174
10. Ishiguro S, Ito K, Nakagawa S, et al. The clinical benefits of denosumab for prophylaxis of steroid-induced osteoporosis in patients with pulmonary disease. *Arch Osteoporos* 2017; 12:44
11. Chawla S, Henshaw R, Seeger L, et al. Safety and efficacy of denosumab for adults and skeletally mature adolescents with giant cell tumour of bone: interim analysis of an open-label, parallel-group, phase 2 study. *Lancet Oncol* 2013; 14:901

### **Review History**

06/22/2022: Created and Reviewed June P&T, switched from CVS Standard to Custom criteria, updated approval duration for Prolia to 24 months; combined Prolia & Xgeva to single document. Effective 09/01/2022.

03/15/23 - Reviewed and updated for Mar P&T. Matched MH UPPL criteria. Effective 4/1/23.

12/11/24 – Reviewed and updated for P&T. Formatting updates. Effective 01/06/25

