



MEDICAID POLICY STATEMENT

Original Effective Date	Next Annual Review Date	Last Review / Revision Date
06/15/2011	12/15/2016	9/21/2016
Policy Name		Policy Number
Parenteral Calcium Regulators - pamidronate (Aredia), zoledronic acid (Reclast and Zometa), ibandronate (Boniva), denosumab (Prolia and Xgeva), teriparatide (Forteo)		SRx-0021
Policy Type		
<input checked="" type="checkbox"/> Medical	<input type="checkbox"/> Administrative	<input type="checkbox"/> Payment

Medical Policy Statements prepared by CSMG Co. and its affiliates (including CareSource) are derived from literature based on and supported by clinical guidelines, nationally recognized utilization and technology assessment guidelines, other medical management industry standards, and published MCO clinical policy guidelines. Medically necessary services include, but are not limited to, those health care services or supplies that are proper and necessary for the diagnosis or treatment of disease, illness, or injury and without which the patient can be expected to suffer prolonged, increased or new morbidity, impairment of function, dysfunction of a body organ or part, or significant pain and discomfort. These services meet the standards of good medical practice in the local area, are the lowest cost alternative, and are not provided mainly for the convenience of the member or provider. Medically necessary services also include those services defined in any Evidence of Coverage documents, Medical Policy Statements, Provider Manuals, Member Handbooks, and/or other policies and procedures.

Medical Policy Statements prepared by CSMG Co. and its affiliates (including CareSource) do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage) for the service(s) referenced in the Medical Policy Statement. If there is a conflict between the Medical Policy Statement and the plan contract (i.e., Evidence of Coverage), then the plan contract (i.e., Evidence of Coverage) will be the controlling document used to make the determination.

For Medicare plans please reference the below link to search for Applicable National Coverage Descriptions (NCD) and Local Coverage Descriptions (LCD):

A. SUBJECT

Calcium Regulators

- Zoledronic acid Infusion (Reclast or Zometa)
- Ibandronate Injection (Boniva)
- Denosumab Injection (Prolia or Xgeva)
- Teriparatide Injection (Forteo)
- Pamidronate Injection (Aredia)

[Ohio Medicaid Preferred Drug List](#)

[Kentucky Medicaid Preferred Drug List](#)

[Just4Me Preferred Drug List](#)

B. BACKGROUND

The CareSource Medication Policies are therapy class policies that are used as a guide when determining health care coverage for our members with benefit plans covering prescription drugs. Medication Policies are written on selected prescription drugs requiring prior authorization or StepTherapy. The Medication Policy is used as a tool to be interpreted in conjunction with the member's specific benefit plan.



The intent of the Calcium Regulator (PA) program is to encourage appropriate selection of therapy for patients according to product labeling and/or clinical guidelines and/or clinical studies, and also to encourage use of preferred agents.

C. DEFINITIONS

N/A

D. POLICY

CareSource will approve the use of the medications and consider them as medically necessary when the following criteria have been met:

- I. Zoledronic acid (Reclast or Zometa), ibandronate solution (Boniva) and pamidronate (Aredia) are considered medically necessary when criteria are met for **ANY** of the following indications:
 - A. Hypercalcemia of malignancy when **ALL** of the following are met:
 1. *Albumin-corrected serum calcium of 12 mg/dL (3 mmol/L) or greater*
 2. *Hypercalcemia due to malignancy*
 - B. Skeletal metastases from cancer, as indicated by **ALL** of the following:
 1. *Standard antineoplastic therapy continues*
 2. *Osteolytic bone lesions, bone pain, or metastases from 1 or more of the following:*
 - a. *Breast cancer*
 - b. *Multiple myeloma*
 - c. *For zoledronic acid use only, 1 or more of the following:*
 - i. *Prostate cancer, if progression occurred after treatment with at least one form of androgen deprivation therapy*
 - ii. *Other solid tumors*
 - C. Moderate to severe Paget's disease, as indicated by **1 or more** of the following:
 1. *Asymptomatic, but likely progression in high-risk areas, as indicated by 1 or more of the following:*
 - a. *Potential compression would cause neurologic syndrome*
 - b. *Potential fracture in weight-bearing long bone*
 2. *Symptoms from active bone lesions, including 1 or more of the following:*
 - a. *Back pain due to Pagetic radiculopathy or arthropathy*
 - b. *Bone pain*
 - c. *Fissure fractures*
 - d. *Headache with skull involvement*
 - e. *Other neurologic syndromes*
 3. *Elective surgery planned for Pagetic site*
 4. *Hypercalcemia from immobilization*
 5. *Serum alkaline phosphatase elevated to 2 or more times upper limit of normal age-specific reference range*
 - D. Osteoporosis, as indicated by **ALL** of the following:
 1. *Oral bisphosphonate medications are not therapeutic option, as indicated by 1 or more of the following:*
 - a. *Esophageal dysmotility or varices*
 - b. *Intolerance or failure to trials of 2 or more different oral bisphosphonate drugs*
 - c. *Patient not adherent to oral bisphosphonate medications*
 - d. *Patient unable to stand or sit upright for 30 to 60 minutes*
 2. Osteoporosis, and need for treatment, as indicated by **1 or more** of the following:



- a. Documented postmenopausal osteoporosis, as indicated by **1 or more** of the following
 - i. *Femoral neck, spine, or total hip bone mineral density T-score minus 2.5 or less*
 - ii. *Hip or vertebral fragility (ie, low-trauma) fracture in female older than 50 years*
 - b. **For zoledronic acid use only**, osteoporosis in male, as indicated by **1 or more** of the following:
 - i. *Femoral neck, spine, or total hip bone mineral density T-score minus 2.5 or less*
 - ii. *Hip or vertebral fragility fracture in patient older than 50 years*
 - iii. *Osteoporosis secondary to hypogonadism and failure of or intolerance to testosterone*
 - c. **For zoledronic acid use only**, prevention or treatment of glucocorticoid-induced osteoporosis in male or female, as indicated by **ALL** of the following:
 - i. Duration of glucocorticoid therapy expected to be **1 or more** of the following:
 - 1. *Three months or more for male 50 years or older*
 - 2. *Three months or more for any patient with history of fragility (ie, low-trauma fracture)*
 - 3. *Three months or more for postmenopausal female*
 - 4. *Twelve months or more for any patient without history of fragility fracture*
 - ii. Daily dose of glucocorticoid, as indicated by **1 or more** of the following:
 - 1. *Glucocorticoid daily dose equivalent to 7.5 mg or more of prednisone*
 - 2. *Glucocorticoid daily dose equivalent to 5 mg or more of prednisone and 1 or more of the following risk factors for fracture:*
 - a. *Alcohol intake of 3 or more drinks per day*
 - b. *BMI less than 20*
 - c. *Current or past history of cigarette smoking*
 - d. *Osteoporosis (ie, femoral neck, spine, or total hip bone mineral density T-score minus 2.5 or less)*
 - e. *Parental hip fracture*
 - f. *Previous or current fracture*
 - g. *Rheumatoid arthritis*
- E. Prevention of osteoporosis, as indicated by **1 or more** of the following:
- 1. For **zoledronic acid use only**, prevention of osteoporosis in postmenopausal female unable to tolerate oral bisphosphonates
 - 2. Postmenopausal female with breast cancer on aromatase inhibitor and **1 or more** of the following:
 - a. *Bone mineral density T-score less than minus 2.0*
 - b. *Current non-traumatic fracture*



- c. Risk factors for fracture, as indicated by **2 or more** of the following:
 - i. Age older than 65 years
 - ii. Alcohol intake of 3 or more drinks per day
 - iii. Annual decrease of bone mineral density of 10% or more
 - iv. BMI less than 20
 - v. Bone mineral density T-score less than minus 1.5
 - vi. Corticosteroid use of more than 6 months' duration
 - vii. Current or past history of cigarette smoking
 - viii. Parental hip fracture
 - ix. Personal history of fragility or osteoporotic fracture after age 50 years
- 3. Male with prostate cancer and **ALL** of the following:
 - a. Age 70 years or older
 - b. Patient receiving androgen deprivation therapy
 - c. Risk factors for fracture, as indicated by **2 or more** of the following
 - i. Alcohol intake of 3 or more drinks per day
 - ii. Bone mineral density T-score less than minus 1.0
 - iii. Corticosteroid use of more than 6 months' duration
 - iv. Current or past history of cigarette smoking
 - v. Parental hip fracture
 - vi. Personal history of fragility or osteoporotic fracture after age 50 years
- 4. **For zoledronic acid use only**, prevention of glucocorticoid-induced osteoporosis in male or female, as indicated by **ALL** of the following:
 - a. Duration of glucocorticoid therapy expected to be **1 or more** of the following:
 - i. Three months or more for male 50 years or older
 - ii. Three months or more for any patient with history of fragility (ie, low-trauma fracture)
 - iii. Three months or more for postmenopausal female
 - iv. Twelve months or more
 - b. Daily dose of glucocorticoid, as indicated by **1 or more** of the following:
 - i. Glucocorticoid daily dose equivalent to 7.5 mg or more of prednisone
 - ii. Glucocorticoid daily dose equivalent to 5 mg or more of prednisone and **1 or more** of the following risk factors for fracture:
 - 1. Alcohol intake of 3 or more drinks per day
 - 2. BMI less than 20
 - 3. Current or past history of cigarette smoking
 - 4. Osteoporosis (ie, femoral neck, spine, or total hip bone mineral density T-score minus 2.5 or less)
 - 5. Parental hip fracture
 - 6. Previous or current fracture
 - 7. Rheumatoid arthritis



- II. Teriparatide (Forteo) is considered medically necessary when the **ALL** following criteria are met:
- A. Clinical findings include 1 or more of the following:
 - 1. *Postmenopausal osteoporosis, as indicated by **1 or more** of the following:*
 - a. *Femoral neck, spine, or total hip bone mineral density T-score minus 2.5 or less*
 - b. *Hip or vertebral fragility (ie, low-trauma) fracture in female older than 50 years*
 - 2. *Osteoporosis in males, as indicated by **1 or more** of the following:*
 - a. *Femoral neck, spine, or total hip bone mineral density T-score minus 2.5 or less*
 - b. *Hip or vertebral fragility fracture in patient older than 50 years*
 - c. *Osteoporosis secondary to hypogonadism and failure of or intolerance to testosterone*
 - 3. *Glucocorticoid-induced osteoporosis in male or female, as indicated by **ALL** of the following*
 - a. *Daily dose equivalent to 7.5 mg or more of prednisone*
 - b. *Duration of glucocorticoid therapy expected to be **1 or more** of the following:*
 - i. *Three months or more for male 50 years or older*
 - ii. *Three months or more for any patient with history of fragility*
 - iii. *Three months or more for postmenopausal female*
 - iv. *Twelve months or more*
 - B. *Failure of, inability to tolerate, or contraindication to oral or intravenous bisphosphonates*
 - C. *Risk factors for fracture, as indicated by **1 or more** of the following:*
 - 1. *Alcohol intake of 3 or more drinks per day*
 - 2. *BMI less than 20*
 - 3. *Corticosteroid use of more than 6 months' duration*
 - 4. *Current or past history of cigarette smoking*
 - 5. *Parental hip fracture*
 - 6. *Personal history of fragility or osteoporotic fracture after age 50 years*
- III. Denosumab Injection (Prolia or Xgeva) are considered medically necessary when the **ONE** of the following criteria is met:
- A. **Giant cell tumor of bone in adult or skeletally mature adolescent, as indicated by **ONE** of the following:**
 - 1. *Recurrent disease*
 - 2. *Unresectable disease, or located where planned surgery is likely to result in severe morbidity*
 - B. **Hypercalcemia of malignancy, as indicated by **ALL** of the following:**
 - 1. *Hypercalcemia due to current malignancy*
 - 2. *Serum calcium of 12.5 mg/dL (3.1 mmol/L) or greater, after correction for serum albumin*
 - 3. *Refractory to bisphosphonate therapy*
 - C. **Prevention of osteoporosis, as indicated by **1 or more** of the following:**
 - 1. **Prevention of bone loss in female with breast cancer, as indicated by **ALL** of the following**
 - a. *Patient receiving adjuvant therapy with aromatase inhibitor*



- b. *Risk factors for fracture, as indicated by **2 or more** of the following:*
 - i. *Age older than 65 years*
 - ii. *Alcohol intake of 3 or more drinks per day*
 - iii. *Annual decrease of bone mineral density of 10% or more*
 - iv. *BMI less than 20*
 - v. *Bone mineral density T-score less than minus 1.5*
 - vi. *Corticosteroid use of more than 6 months' duration*
 - vii. *Current or past history of cigarette smoking*
 - viii. *Parental hip fracture*
 - ix. *Personal history of fragility fracture after age 50 years*
- 2. *Prevention of bone loss in male with prostate cancer, as indicated by **ALL** of the following:*
 - a. *Age 70 years or older*
 - b. *Patient receiving androgen deprivation therapy*
 - c. *Risk factors for fracture, as indicated by **2 or more** of the following:*
 - i. *Alcohol intake of 3 or more drinks per day*
 - ii. *Corticosteroid use of more than 6 months' duration*
 - iii. *Current or past history of cigarette smoking*
 - iv. *Femoral neck, lumbar spine, or total hip bone mineral density T-score less than minus 1.0*
 - v. *Parental hip fracture*
 - vi. *Personal history of fragility or osteoporotic fracture after age 50 years*
- D. *Osteoporosis and need for treatment in patient at high risk for fracture, as indicated by **ALL** of the following:*
 - 1. *Documented osteoporosis in male or postmenopausal female, as indicated by **1 or more** of the following*
 - a. *Femoral neck, lumbar spine, or total hip bone mineral density T-score of less than minus 2.5*
 - b. *History of osteoporotic fracture*
 - 2. *Inability to tolerate or contraindication to other available osteoporosis therapy, including **1 or more** of the following:*
 - a. *Calcitonin*
 - b. *Intravenous bisphosphonate (eg, ibandronate, zoledronic acid)*
 - c. *Oral bisphosphonate (eg, alendronate, risedronate, ibandronate)*
 - d. *Raloxifene*
 - e. *Teriparatide*
- E. *Prevention or treatment of skeletal-related events from cancer metastatic to bone, as indicated by **ALL** of the following:*
 - 1. *Standard antineoplastic therapy continues*
 - 2. *Osteolytic bone lesions or bone metastases from solid tumors, including **1 or more** of the following:*
 - a. *Breast cancer*
 - b. *Prostate cancer*
 - c. *Other solid tumors (eg, lung or renal cancer)*



Note: Documented diagnosis must be confirmed by contemporaneous portions of the individual's medical record which will confirm the presence of disease and will need to be supplied with prior authorization request. These medical records may include, but not limited to test reports, chart notes from provider's office or hospital admission notes.

Refer to the product package insert for dosing, administration and safety guidelines.

ALL other uses of Calcium Regulators are considered experimental/investigational and therefore, will follow CareSource's Medical Necessity - Off-Label, Approved Orphan and Compassionate Use Drugs.

CONDITIONS OF COVERAGE

HCPCS J1740 Boniva Injection
 J3489 Reclast Infusion, Zometa, Zoledronic Acid
 J3110 Forteo Injection
 J0897 Xgeva, Prolia Injection

CPT

PLACE OF SERVICE

Office, Outpatient, Home

Note: CareSource supports administering injectable medications in various settings, as long as those services are furnished in the most appropriate and cost effective setting that are supportive of the patient's medical condition and unique needs and condition. The decision on the most appropriate setting for administration is based on the member's current medical condition and any required monitoring or additional services that may coincide with the delivery of the specific medication.

AUTHORIZATION PERIOD

Approved initial authorizations are valid for up to **1 (one)** year (if applicable). Continued treatment may be considered when the member has shown biological response to treatment. **ALL** authorizations are subject to continued eligibility.

C. REVIEW/REVISION HISTORY

Date Issued: 06/15/2011
Date Reviewed: 06/15/2011, 08/01/2013, 05/16/2014
Date Revised: 12/15/2015 – Revisions to criteria and add Forteo
 03/15/2015 – Placed into new template
 11/17/2015 – Revisions to indications and added limitations of use
 07/13/16 – Revisions to include changes to format

D. REFERENCES

1. Boniva [package insert]. South San Francisco, CA: Genetech USA, Inc.; Revised April 2015.
2. Reclast [package insert]. East Hanover, NJ: Novartis Pharmaceuticals Corporation.; Revised January 2015.



3. Zometa [package insert]. East Hanover, NJ: Novartis Pharmaceuticals Corporation.; Revised January 2015.
4. Xgeva [package insert]. Thousand Oaks, CA: Amgen, Inc.; Revised June 2015.
5. McCarus DC. Fracture prevention in postmenopausal osteoporosis: a review of treatment options. *Obstetrics and Gynecological Survey* 2006; 61(1):39-50
6. Abramowicz M. (editor) Intravenous Ibandronate (Boniva). *The Medical Letter*. August 2006; 48(1241):68-69
7. Wolters Kluwer. Facts & Comparisons. www.factsandcomparisons.com, 2011. (February 22, 2011)
8. Black DM et al. Once-Yearly Zoledronic Acid for Treatment of Postmenopausal osteoporosis. *NEJM* May 3, 2007; 356(18): 1809-22
9. Compston J. Treatments for Osteoporosis- Looking beyond the HORIZON (editorial) *NEJM* May 3, 2007; 356(18): 1878-80
10. Saag KG, E. Shane, et al. Teriparatide or alendronate in glucocorticoid-induced osteoporosis. *NEJM* 2007; 357(20): 2028-39
11. Fleurence RL, et al. The cost effectiveness of bisphosphonates for the prevention and treatment of osteoporosis: a structured review of the literature. *Pharmacoeconomics* 2007; 25(11): 913-33
12. American Society of Clinical Oncology (ASCO). American Society of Clinical Oncology clinical practice guideline update on the role of bone-modifying agents in metastatic breast cancer. *J Clin Oncol*. 2011 Feb 22
13. Van Poznak CH, Von Roenn HJ, Temin S. American Society of Clinical Oncology executive summary of the clinical practice guideline update on the role of bone-modifying agents in metastatic breast cancer. *Journal of Clinical Oncology* 2011;29(9):1221-7.
14. Gralow JR, Biermann JS, Farooki A: et al. NCCN task force report: bone health in cancer care. *Journal of the National Comprehensive Cancer Network* 2013;S3:S1-50.
15. Stopeck AT, Lipton A, Body JJ: et al. Denosumab compared with zoledronic acid for the treatment of bone metastases in patients with advanced breast cancer: a randomized, double-blind study. *Journal of Clinical Oncology* 2010;28(35):5132-39.
16. Fizazi K, Carducci M, Smith M: et al. Denosumab versus zoledronic acid for the treatment of bone metastases in men with castration-resistant prostate cancer: a randomized, double-blind study. *Lancet* 2011;377:813-22.
17. American College of Rheumatology, Practice Management. 1996 Sep 3. <http://www.rheumatology.org/practice/clinical/guidelines/osteo.asp>
18. Forteo [package insert]. Indianapolis, IN: Eli Lilly and Company.; Revised March 2012.
19. McCarus DC. Fracture prevention in postmenopausal osteoporosis: a review of treatment options. *Obstetrics and Gynecological Survey* 2006; 61(1):39-50
20. Abramowicz M. (editor) Intravenous Ibandronate (Boniva). *The Medical Letter*. August 2006; 48(1241):68-69
21. Wolters Kluwer. Facts & Comparisons. www.factsandcomparisons.com, 2011. (February 22, 2011)
22. Compston J. Treatments for Osteoporosis- Looking beyond the HORIZON (editorial) *NEJM* May 3, 2007; 356(18): 1878-80
23. Saag KG, E. Shane, et al. Teriparatide or alendronate in glucocorticoid-induced osteoporosis. *NEJM* 2007; 357(20): 2028-39
24. Fleurence RL, et al. The cost effectiveness of bisphosphonates for the prevention and treatment of osteoporosis: a structured review of the literature. *Pharmacoeconomics* 2007; 25(11): 913-33.
25. Once yearly osteoporosis treatment and other bisphosphonate developments. *Pharmacist's Letter/Prescriber's Letter* 2007; 23(9):230902.
26. Osteoporosis. *Pharmacist's Letter/Prescriber's Letter* 2008: 24.



27. National Osteoporosis Foundation. Clinician's Guide to Prevention and Treatment of Osteoporosis. Washington, DC: National Osteoporosis Foundation; 2010. http://www.nof.org/professionals/pdfs/NOF_ClinicianGuide2009_v7.pdf. (May 14, 2011)
28. North American Menopause Society (NAMS). Management of osteoporosis in postmenopausal women: 2010 position statement of The North American Menopause Society. *Menopause* 2010;17(1):25-54.
29. File E, Deal C. Clinical update on teriparatide. *Current Rheumatology Reports* 2009;11(3):169-76.
30. Watts NB, et al. American Association of Clinical Endocrinologists medical guidelines for clinical practice for the diagnosis and treatment of postmenopausal osteoporosis. *Endocrine Practice* 2010 Nov-Dec;16 Suppl 3:1-37
31. Gielen E, Vanderschueren D, Callewaert F, Boonen S. Osteoporosis in men. *Best Practice and Research. Clinical Endocrinology and Metabolism* 2011;25(2):321-35. DOI: 10.1016/j.beem.2010.08.012
32. Murad MH, et al. Comparative effectiveness of drug treatments to prevent fragility fractures: a systematic review and network meta-analysis. *Journal of Clinical Endocrinology and Metabolism* 2012;97(6):1871-80. DOI: 10.1210/jc.2011-3060.
33. Murad MH, et al. Comparative effectiveness of drug treatments to prevent fragility fractures: a systematic review and network meta-analysis. *Journal of Clinical Endocrinology and Metabolism* 2012;97(6):1871-80. DOI: 10.1210/jc.2011-3060.
34. Facts and Comparison. <http://online.factsandcomparisons.com/index.aspx>, National Osteoporosis Foundation. <http://www.nof.org/home>
35. US Food and Drug Administration (FDA). Center for Drug Evaluation and Research. Post-market drug safety information for patients and providers on denosumab (Prolia™). [FDA Web site]. 2009. Available at: <http://www.fda.gov/downloads/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientandProviders/UCM214383.pdf> . Accessed September 4, 2011.
36. National Osteoporosis Foundation (NOF). Medications to prevent and treat osteoporosis. Available at: http://www.nof.org/patientinfo/medications.htm#Medications_Prevention_Treatment. Accessed September 4, 2011.
37. Cummings SR, San Martin J, McClung SR, et al. Denosumab for prevention of fractures in postmenopausal women with osteoporosis. *N Engl J Med*. 2009;361(8):756-65.
38. Burkiewicz JS, Scarpace SL, Bruce SP. Denosumab in osteoporosis and oncology. *Annals of Pharmacotherapy* 2009;43(9):1445-55. DOI: 10.1345/aph.1M102
39. Ross AC, Manson JE, Abrams SA, et al. The 2011 report on dietary reference intakes for calcium and vitamin D from the Institute of Medicine: what clinicians need to know. *J Clin Endocrinol Metab*. 2011 Jan;96(1):53-8.
40. Dietary Reference Intakes for Vitamin D and Calcium. Institute of Medicine Report Brief. November 2010: 1-4.
41. Available at: <http://www.iom.edu/Reports/2010/Dietary-Reference-Intakes-for-Calcium-and-Vitamin-D.aspx>. Accessed on 9/7/11.
42. Denosumab (prolia) for postmenopausal osteoporosis. *Medical Letter on Drugs and Therapeutics* 2010;52(1349):81-2.
43. Khosla S. Increasing options for the treatment of osteoporosis. *New England Journal of Medicine* 2009;361(8):818-20. DOI: 10.1056/NEJMe0905480.
44. Lexi-Comp Online™, Lexi-Drugs Online™, Hudson, Ohio: Lexi-Comp, Inc.; October 23, 2014.
45. MCG Guidelines 20th Ed, 2016.
46. UpToDate, Waltham, MA. Accessed October 23, 2014.
47. Prolia [package insert]. Thousand Oaks, CA: Amgen, Inc.; Revised February 2015.
48. NCCN Guidelines for Invasive Breast Cancer. Accessed October 15, 2015



This guideline contains custom content that has been modified from the standard care guidelines and has not been reviewed or approved by MCG Health, LLC.

The Medical Policy Statement detailed above has received due consideration as defined in the Medical Policy Statement Policy and is approved.

Independent Medical Review: 05/19/2011