

Medical Affairs Policy & Procedure

Title/Service: Bisphosphonates [Actonel and Atelvia (risedronate), Fosamax (alendronate), Aredia (pamidronate), Boniva (ibandronate), Didronel (etidronate), Reclast/Zometa (zoledronic acid), Skelid (tiludronate)]

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Description:

Bisphosphonates are a class of drugs that prevent bone loss by decreasing the action of osteoclasts in the portion of the bone remodeling cycle involved in destruction of bone and by inhibiting bone resorption and allowing osteoblastic activity to predominate. Bisphosphonates increase bone mineral density, helping to reduce the risk of fracture.

Indications of Coverage:

Note: Osteopenia is defined as bone mineral density (BMD) testing T-score between -1.0 and -2.5 and a FRAX (see www.shef.ac.uk/FRAX/) major osteoporotic fracture probability greater than or equal to 20% or hip fracture probability greater than or equal to 3%.

Note: Osteoporosis is defined as bone mineral density testing T-score of -2.5 or lower in the anteroposterior spine, femoral neck, or total hip and the absence of any fracture OR the presence of a fracture of the hip or spine and the absence of other bone conditions (for example, malignancy).

Note: Failure of therapy is defined as decreasing bone mineral density testing OR the presence of new fractures and the absence of other bone conditions (for example, malignancy).

Note: Continued therapeutic response is defined as improvement in bone mineral density, stability in bone mineral density, or decrease of decline in bone mineral density.

A. Postmenopausal Osteoporosis or Osteopenia in Women and Osteoporosis in Men

- 1) Oral alendronate (Fosamax) or risedronate (Actonel) is considered medically necessary for the treatment of **osteoporosis or osteopenia** in postmenopausal women and for the treatment of osteoporosis in men.

- 2) Oral ibandronate (Boniva) or risedronate (Atelvia) is considered medically necessary for the treatment of **osteoporosis or osteopenia** in postmenopausal women and for the treatment of osteoporosis in men following the failure of a trial of oral alendronate (Fosamax) or risedronate (Actonel).
- 3) Intravenous zoledronic acid (Reclast) or ibandronate (Boniva) is considered medically necessary for the treatment of **osteoporosis or osteopenia** when there is failure of, a contraindication to (for example, active upper gastrointestinal disease, esophageal stricture, symptoms of esophagitis, inability to remain upright for sixty minutes), or intolerance to conventional therapy, including a minimum of two of the following: oral bisphosphonates, calcitonin, or raloxifene.

B. Glucocorticoid-Induced Osteoporosis

- 1) Oral alendronate (Fosamax) or oral risedronate (Actonel) is considered medically necessary for the treatment of **glucocorticoid-induced osteoporosis** in individuals expected to be on oral or parenteral glucocorticoids for twelve months or more. Intravenous zoledronic acid (Reclast) is considered medically necessary for the treatment of glucocorticoid-induced osteoporosis in individuals expected to be on oral or parenteral glucocorticoids for twelve months or more when there is failure of, a contraindication to, or intolerance of oral bisphosphonate therapy.

C. Paget's Disease of Bone

- 1) Oral alendronate (Fosamax), oral risedronate (Actonel), oral etidronate (Didronel), or oral tiludronate (Skelid) is considered medically necessary for the treatment of **Paget's disease** of bone. Intravenous zoledronic acid (Reclast) or intravenous pamidronate (Aredia) is considered medically necessary for the treatment of Paget's disease of bone when there is failure of, a contraindication to, or intolerance of oral bisphosphonate therapy.

D. Cancer and Associated Comorbidities

- 1) Intravenous ibandronate (Boniva), intravenous pamidronate (Aredia) or intravenous zoledronic acid (Zometa) is considered medically necessary for the treatment of **hypercalcemia** (total calcium greater than 11 mg/dL) associated with malignancy.
- 2) Intravenous pamidronate (Aredia) or intravenous zoledronic acid (Zometa) in conjunction with standard antineoplastic therapy is considered medically necessary for the treatment of **multiple myeloma** or symptomatic **metastatic bony lesions** from primary breast, lung, thyroid, neuroendocrine, or prostate cancer. (Note: consistent with

recommendations from the National Comprehensive Cancer Network, intravenous zoledronic acid (Zometa) for prostate cancer is indicated for the management of osteoporosis during androgen deprivation therapy for individuals with high fracture risk or when the cancer has progressed following at least one hormonal therapy (for example, leuprolide or goserelin) and the creatinine clearance is greater than 30 mL/min.)

E. Heterotopic Ossification

- 1) The use of etidronate (Didronel) is considered medically necessary for the treatment of **heterotopic ossification** following total hip replacement or due to spinal cord injury.
- **For all conditions**, treatment may be approved for five (5) annual courses of treatment with documentation of continued therapeutic response.

Limitations of Coverage:

- A. Review contract and endorsements for exclusions and prior authorization or benefit requirements.
- B. If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.
- C. If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.
- D. Treatment for any condition with multiple bisphosphonates is considered investigational. There is insufficient peer-reviewed scientific literature supporting the concurrent use of multiple bisphosphonates.
- E. Bisphosphonate therapy for the treatment of hypercalcemia associated with hyperparathyroidism or another non-malignant condition is considered investigational. There is insufficient peer-reviewed scientific literature supporting the use of bisphosphonate therapy for these conditions.
- F. Bisphosphonate therapy for breast cancer risk reduction is considered investigational as there is insufficient peer-reviewed scientific literature supporting a change in the course of disease when bisphosphonates are utilized.

Documentation Required:

- Office notes
- Laboratory data
- Bone density testing, when relevant

- Prescription medication use data

References:

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2. Aredia (pamidronate disodium) for injection. East Hanover, NJ: Novartis Pharmaceuticals Corporation. Revised: Nov 2008. Available at: www.pamidronate.com/index.jsp?usertrack.filter_applied=true&NovaId=402946200888200192. Accessed: 6 Apr 11.
3. Atelvia (risedronate sodium) delayed-release tablets). North Norwich, NY: Norwich Pharmaceuticals. Revised: 01/2011. Available at: www.wcrx.com/pdfs/pi/pi_atelvia.pdf. Accessed: 31 Aug 11.
4. Boniva (ibandronate sodium). Nutley, NJ: Roche Laboratories. Revised: Jan 2011. Available at: www.gene.com/gene/products/information/boniva/. Accessed: 31 Aug 11.
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10. Reclast (zoledronic acid) injection. East Hanover, NJ: Novartis Pharmaceuticals Corporation. Revised: 03/2011. Available at: www.pharma.us.novartis.com/product/pi/pdf/reclast.pdf. Accessed: 31 Aug 11.



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Approved by the Medical Director