

Medical Affairs Policy & Procedure

Title/Service: Prolia and Xgeva (denosumab)

Revised	09/16/2011
Reviewed	10/22/10
Developed	10/22/10
Policy Committee Approval	09/16/2011

Description:

Denosumab is a fully-human monoclonal antibody RANKL (Receptor Activator for Nuclear Factor Kappa B Ligand) inhibitor. RANKL is a mediator of osteoclast formation. Through restriction of the action of RANKL, denosumab acts to inhibit osteoclast activity, allowing decreased bone turnover and resorption, and increasing bone mass and strength.

Indications of Coverage:

Treatment with Prolia is considered medically necessary for the treatment of osteoporosis in postmenopausal women at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture, when **all** of the following criteria are met:

- A. Trial or intolerance of conventional therapy, including alendronate (Fosamax) or other oral bisphosphonates, calcitonin (Fortical), or raloxifene (Evista).
- B. Trial or intolerance of intravenous bisphosphonate therapy such as zoledronic acid (Reclast) and ibandronate (Boniva).
- C. Bone mineral density (BMD) testing, with T-scores of -2.5 or lower

Treatment with Xgeva is considered medically necessary for the treatment of bone metastases from solid tumors (for example, breast cancer, colorectal cancer, sarcoma, lymphoma) when the medical record documents failure or intolerance of conventional therapy, including a trial of **one** intravenous bisphosphonate.

- If criteria are met, the treatment may be approved for one year. Subsequent treatment may be approved in one year increments with review of continued therapeutic response and **consistent** medication use.

Dosage and administration:

The recommended dose of Prolia is 60 mg administered as a single subcutaneous injection once every six months, administered by a healthcare professional. Prolia is administered via subcutaneous injection in the upper arm, the upper thigh, or the abdomen. All individuals receiving Prolia should receive calcium 1000 mg daily and at least 400 IU vitamin D daily. Prolia may be administered in the office or clinic or by a home health agency.

The recommended dose of Xgeva is 120 mg administered as a single subcutaneous injection once every four weeks. Xgeva is administered via subcutaneous injection in the upper arm, the upper thigh, or the abdomen. All individuals receiving Xgeva should receive calcium and vitamin D supplements to prevent hypocalcemia. Xgeva injections are self-administered unless contraindicated (for example, the individual is unable to inject themselves due to a functional limitation). One injection in the clinic for teaching is allowed for individuals who have not previously received instruction in self-administered injections. For individuals with functional limitations, home health assistance may be considered.

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. The use of Prolia for individuals with osteopenia (bone mineral density (BMD) testing, with T-scores from -1 to - 2.5) is considered investigational and not medically necessary. Prolia has not been approved for the treatment of osteopenia.
- E. The use of Prolia in males is considered investigational as Prolia has not been approved for use in males.
- F. The use of Xgeva for individuals with multiple myeloma is considered investigational as the use of Xgeva for multiple myeloma has not been approved by the FDA (Food and Drug Administration).

Documentation Required:

- Office notes
- Laboratory data

- Prescription medication use data

Rationale:

Prolia is the first monoclonal antibody approved for the treatment of osteoporosis, with a novel process for reducing bone breakdown. Studies have demonstrated its use in reducing the risk of fracture in postmenopausal women with osteoporosis. There are ongoing trials examining the use of Prolia in other conditions, but the FDA has only approved the above use at this time.

Xgeva was approved by the FDA in November 2010 based on the results of three clinical trials. In general, the studies did not clearly show that the use of Xgeva was superior to the use of other conventional therapy for all cancers. Therefore, a trial of conventional therapy is considered appropriate prior to the initiation of Xgeva.

References:

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Approved by the Medical Director