Pharmacy Prior Authorization
Clinical Guidelines - Injectable Osteoporosis Medications

Forteo® (teriparatide) Prolia® (denosumab) Zoledronic acid

Authorization Guidelines:

Treatment of Osteoporosis in Postmenopausal Women and Men (Zoledronic acid, Prolia, and Forteo):

- Diagnosis of osteoporosis (T-score ≤-2.5 **OR** fragility fracture at the hip, spine, wrist, arm, rib, or pelvis)
- Patient's 25-hydroxyvitamin D level is >20 ng/mL. Patients who are vitamin D deficient should have vitamin D replaced (i.e., 50,000 IU weekly) before starting treatment with an injectable osteoporosis agent.
- Patient has ONE of the following:
    - Therapeutic failure on oral bisphosphonate despite compliance (including new fracture or reduction in BMD per recent DEXA scan after 2 years of oral bisphosphonate)
    - Contraindication or severe intolerance to oral bisphosphonate (e.g., current upper GI symptoms, inability to swallow, or inability to remain in an upright position after oral bisphosphonate administration for the required length of time)
- **In addition for men**: Testosterone level is normal. If patient is hypogonadal, testosterone replacement therapy should be prescribed before starting treatment with an injectable osteoporosis agent unless the patient has a history of prostate cancer.

Prevention of Osteoporosis in Postmenopausal Women (Zoledronic acid):

- Diagnosis of osteopenia (T-score between -1.0 and -2.5) and at high risk for OP fracture (FRAX risk ≥3.0% for hip fracture or ≥20% for any major OP-related fracture **OR** multiple risk factors for fracture) *See Additional information for details
- Patient's 25-hydroxyvitamin D level is >20 ng/mL. Patients who are vitamin D deficient should have vitamin D replaced (i.e., 50,000 IU weekly) before starting treatment with an injectable osteoporosis agent.
- Patient has ONE of the following:
    - Therapeutic failure on oral bisphosphonate despite compliance (including new fracture or reduction in BMD per recent DEXA scan after 2 years of oral bisphosphonate)
    - Contraindication or severe intolerance to oral bisphosphonate (e.g., current upper GI symptoms, inability to swallow, or inability to remain in an upright position after oral bisphosphonate administration for the required length of time)

Glucocorticoid-Induced Osteoporosis: (Zoledronic acid, Forteo):

- Patient meets ONE of the following:
    - Postmenopausal woman or a man ≥50 years old and has received, or is expected to receive, prednisone ≥7.5mg/day (or equivalent) for ≥3 months
    - Premenopausal woman or a man <50 years old WITH a history of fragility fracture and has received, or is expected to receive, prednisone ≥7.5mg/day (or equivalent) for ≥3 months
- Patient's 25-hydroxyvitamin D level is >20 ng/mL. Patients who are vitamin D deficient should have vitamin D replaced (i.e., 50,000 IU weekly) before starting treatment with an injectable osteoporosis agent.
- Patient has ONE of the following:
    - Therapeutic failure on oral bisphosphonate despite compliance (including new fracture or reduction in BMD per recent DEXA scan after 2 years of oral bisphosphonate)

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- Contraindication or severe intolerance to oral bisphosphonate (e.g., current upper GI symptoms, inability to swallow, or inability to remain in an upright position after oral bisphosphonate administration for the required length of time)

Bone Metastases of Cancer and Multiple Myeloma: (zoledronic acid):

- Patient has ONE of the following diagnoses:
  - Solid tumor with bone metastases
  - Castration-resistant prostate cancer with bone metastases
  - Multiple myeloma
- Patient's 25-hydroxyvitamin D level is >20 ng/mL. Patients who are vitamin D deficient should have vitamin D replaced (i.e., 50,000 IU weekly) before starting treatment with an injectable osteoporosis agent.

Increase of Bone Mass in Men on Androgen Deprivation Therapy for Prostate Cancer WITHOUT Bone Metastases: (Prolia, zoledronic acid):

- Patient is at high risk for OP fracture (FRAX risk of ≥3.0% for hip fracture or ≥20% for any major OP-related fracture, or multiple risk factors for fracture) *See Additional information for details
- Patient's 25-hydroxyvitamin D level is >20 ng/mL. Patients who are vitamin D deficient should have vitamin D replaced (i.e., 50,000 IU weekly) before starting treatment with an injectable osteoporosis agent.
- Patient has ONE of the following:
  - Therapeutic failure on oral bisphosphonate despite compliance (including new fracture or reduction in BMD per recent DEXA scan after 2 years of oral bisphosphonate)
  - Contraindication or severe intolerance to oral bisphosphonate (e.g., current upper GI symptoms, inability to swallow, or inability to remain in an upright position after oral bisphosphonate administration for the required length of time)

Increase of Bone Mass in Women on Aromatase Inhibitory therapy for Breast Cancer WITHOUT Bone Metastases: (Prolia, zoledronic acid):

- Patient is postmenopausal **OR** premenopausal with a diagnosis of osteoporosis (T-score <-2.5 **OR** fragility fracture at the hip, spine, wrist, arm, rib, or pelvis)
- Patient's 25-hydroxyvitamin D level is >20 ng/mL. Patients who are vitamin D deficient should have vitamin D replaced (i.e., 50,000 IU weekly) before starting treatment with an injectable osteoporosis agent.
- Patient has ONE of the following:
  - Therapeutic failure on oral bisphosphonate despite compliance (including new fracture or reduction in BMD per recent DEXA scan after 2 years of oral bisphosphonate)
  - Contraindication or severe intolerance to oral bisphosphonate (e.g., current upper GI symptoms, inability to swallow, or inability to remain in an upright position after oral bisphosphonate administration for the required length of time)

Hypercalcemia of Malignancy: (zoledronic acid):

- Patient has moderate or severe hypercalcemia (refer to additional information for details) associated with malignancy
- Patient is receiving vigorous saline hydration with a goal of increasing urine output to about 2 L/day

Paget's Disease of Bone: (zoledronic acid):

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- Patient has bone specific alkaline phosphatase ≥2x ULN **OR** has symptoms related to active Paget's (i.e., pain at the site of the pagetic lesion)
- Patient has normal serum calcium, phosphorus, and 25-hydroxyvitamin D. Abnormalities should be treated before starting IV bisphosphonates
- Patient meets ONE of the following:
    - Therapeutic failure on a compliant, 2-month trial of oral bisphosphonate
    - Contraindication or severe intolerance to oral bisphosphonate (e.g., current upper GI symptoms, inability to swallow, or inability to remain in an upright position after oral bisphosphonate administration for the required length of time)

Initial Approval:

- Paget's Disease: 1 treatment
- Hypercalcemia from Malignancy: 1 treatment
- Osteoporosis: 5 years
- All other indications: 2 years

Renewal:

- Paget's Disease: 1 treatment
    - If bone specific alkaline phosphatase rises after initial treatment OR if patient has symptoms
    - Bisphosphonates usually induce remission, therefore long-term approval is usually NOT appropriate
- Hypercalcemia from Malignancy: Retreatment not recommended unless new occurrence
- Osteoporosis: Patients with stable BMD without fractures on treatment may be appropriate for a drug holiday after 4-5 years of treatment. Continue treatment if BMD has worsened or if patient had fractures on treatment
- All other indications: 2 years if patient meets criteria for initial approval
- Note: Forteo is NOT recommended for longer than 2 years due to the risk of osteosarcoma

Quantity Limits:

- Forteo: 1 pen per 28 days
- Prolia: 1 vial/syringe per 168 days (6 months)
- Zoledronic Acid:
    - For Treatment of Osteoporosis and GIOP: 1, 5mg vial per year
    - For Prevention of Osteoporosis: 1, 5mg vial every 2 years
    - For MM or Bone Metastases: 1, 4mg vial per 21 days

Additional Information:

1. It is recommended that all patients should receive ≥1200 mg of elemental calcium and ≥1000 mg of vitamin D from diet and/or supplements to improve effectiveness of the medications and to prevent hypocalcemia.
2. FRAX Calculator: http://www.shef.ac.uk/FRAX/tool.jsp?locationValue=9
3. Severe Hypercalcemia = albumin-corrected calcium (cCa) ≥12 mg/dL [3.0 mmol/L]
   Formula: cCa in mg/dL=Ca in mg/dL + 0.8 (4.0 g/dL - patient albumin [g/dL]).
4. Major Risk factors for Osteoporotic Fractures:

a. low body mass index
b. previous fragility fracture
c. parental history of hip fracture
d. glucocorticoid treatment (refer to specific criteria above for this indication)
e. current smoking
f. alcohol intake of 3 or more units per day
g. rheumatoid arthritis
h. secondary causes of osteoporosis

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