Pharmacy Benefit Coverage Criteria

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Coverage Policy Number P0025

Parathyroid Hormone Analogs (Osteoporosis)

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INSTRUCTIONS FOR USE
The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Medical Necessity Criteria

Teriparatide (Forteo) is considered medically necessary when ALL of the following criteria are met:

- **ONE** of the following:
  - Treatment of osteoporosis in a postmenopausal woman at high risk for fractures defined as ANY of the following:
    - History of fragility (non-traumatic) or osteoporotic fracture
    - Bone mineral density (BMD) T-score less than or equal to -2.5 or lower in the lumbar spine, femoral neck, total hip, and/or 33% (one third) radius [wrist]
    - T-score between –1.0 and –2.5 if the FRAX® 10-year probability for major osteoporotic fracture is at least 20% or the 10-year probability of hip fracture is at least 3%
  - Treatment of primary or hypogonadal osteoporosis in men defined as ANY of the following
    - History of fragility (non-traumatic) or osteoporotic fracture
    - Bone mineral density (BMD) T-score less than or equal to -2.5 or lower in the lumbar spine, femoral neck, total hip, and/or 33% (one third) radius [wrist]
    - T-score between –1.0 and –2.5 if the FRAX® 10-year probability for major osteoporotic fracture is at least 20% or the 10-year probability of hip fracture is at least 3%
  - Treatment of Glucocorticoid-Induced Osteoporosis associated with sustained systemic glucocorticoid therapy (daily dosage equivalent to 5 mg or greater of prednisone) for at least 3 months

- Individual will not exceed lifetime maximum of 24 monthly doses of treatment [(including previous use of Tymlos (abaloparatide)]
- No concomitant use with other osteoporosis therapy (for example, bisphosphonates, Prolia, Tymlos, Evenity)

Coverage varies across plans for the brand Forteo product. Refer to the customer's benefit plan document for coverage details.

Where coverage requires the use of preferred products, the following criteria apply in addition to the above:

For Individual and Family Plans:

- Documented intolerance to teriparatide injection

Abaloparatide (Tymlos) is considered medically necessary when ALL of the following criteria are met:

- Treatment of osteoporosis in a postmenopausal woman at high risk for fractures defined as ANY of the following:
    - History of fragility (non-traumatic) or osteoporotic fracture
    - Bone mineral density (BMD) T-score less than or equal to -2.5 or lower in the lumbar spine, femoral neck, total hip, and/or 33% (one third) radius [wrist]
    - T-score between –1.0 and –2.5 if the FRAX® 10-year probability for major osteoporotic fracture is at least 20% or the 10-year probability of hip fracture is at least 3%
- Individual will not exceed lifetime maximum of 24 monthly doses of treatment [including previous use of Forteo (teriparatide)]
- No concomitant use with other osteoporosis therapy (for example, bisphosphonates, Prolia, Forteo, Evenity)

Coverage varies across plans for abaloparatide (Tymlos). Refer to the customer's benefit plan document for coverage details.

Where coverage requires the use of preferred products, the following criteria apply in addition to the above:

For Individual and Family Plans:

- Documented intolerance to teriparatide injection

Authorization is up to 24 months.

When coverage is available and medically necessary, the dosage, frequency, duration of therapy, and site of care should be reasonable, clinically appropriate, and supported by evidence-based literature and adjusted based upon severity, alternative available treatments, and previous response to therapy.

Teriparatide (Forteo) and abaloparatide (Tymlos) are considered experimental, investigational or unproven for ANY other use.

Note: Receipt of sample product does not satisfy any criteria requirements for coverage

*If you're a Cigna provider, please log in to the Cigna for Health Care Professionals website and search for specific patients to view their covered medications.

FDA Approved Indications

FDA Approved Indication

Brand Name	Approved Indication
Forteo (teriparatide)	**Treatment of Postmenopausal Women with Osteoporosis at High Risk for Fracture** • Forteo is indicated for the treatment of postmenopausal women with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, multiple risk factors for fracture, or patients who have failed or are intolerant to other available osteoporosis therapy • In postmenopausal women with osteoporosis, Forteo reduces the risk of vertebral and nonvertebral fractures **Increase of Bone Mass in Men with Primary or Hypogonadal Osteoporosis at High Risk for Fracture** • Forteo is indicated to increase bone mass in men with primary or hypogonadal osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, multiple risk factors for fracture, or patients who have failed or are intolerant to other available osteoporosis therapy **Treatment of Men and Women with Glucocorticoid-Induced Osteoporosis at High Risk for Fracture** • Forteo is indicated for the treatment of men and women with osteoporosis associated with sustained systemic glucocorticoid therapy (daily dosage equivalent to 5 mg or greater of prednisone) at high risk for fracture, defined as a history of osteoporotic fracture, multiple risk factors for fracture, or patients who have failed or are intolerant to other available osteoporosis therapy
Tymlos (abaloparatide)	Tymlos is indicated for the treatment of postmenopausal women with osteoporosis at high risk for fracture defined as a history of osteoporotic fracture, multiple risk factors for fracture, or patients who have failed or are intolerant to other available osteoporosis therapy. In postmenopausal women with osteoporosis, Tymlos reduces the risk of vertebral fractures and nonvertebral fractures. Limitations of Use: Because of the unknown relevance of the rodent osteosarcoma findings to humans, cumulative use of Tymlos and parathyroid hormone analogs (e.g., teriparatide) for more than 2 years during a patient's lifetime is not recommended.

Recommended Dosing

FDA Recommended Dosing

Brand Name	Recommended Dosing
Forteo (teriparatide)	**Treatment of Postmenopausal Women with Osteoporosis at High Risk for Fracture** • The recommended dose is 20 mcg subcutaneously once a day **Increase of Bone Mass in Men with Primary or Hypogonadal Osteoporosis at High Risk for Fracture** • The recommended dose is 20 mcg subcutaneously once a day **Treatment of Men and Women with Glucocorticoid-Induced Osteoporosis at High Risk for Fracture** • The recommended dose is 20 mcg subcutaneously once a day

Brand Name	Recommended Dosing
	The safety and efficacy of Forteo have not been evaluated beyond 2 years of treatment. Consequently, use of the drug for more than 2 years during a patient's lifetime is not recommended.
Tymlos (abaloparatide)	The recommended dosage of Tymlos is 80 mcg subcutaneously once daily. Cumulative use of Tymlos and parathyroid hormone analogs (e.g., teriparatide) for more than 2 years during a patient's lifetime is not recommended.

Drug Availability

Brand Name	Drug Availability
Forteo (teriparatide)	Subcutaneous injection: single-patient-use multi-dose prefilled pen delivers 28 daily doses, each containing 20 mcg of teriparatide.
Tymlos (abaloparatide)	Subcutaneous injection: single-patient-use multi-dose prefilled pen delivers 30 daily doses, each containing 80 mcg of abaloparatide.

Background

OVERVIEW

Teriparatide products, recombinant human parathyroid hormone (PTH) [1-34], are indicated for the following uses:[1,2]

- Osteoporosis, treatment of postmenopausal women at high risk for fracture.
- Osteoporosis, to increase bone mass in men with primary or hypogonadal osteoporosis at high risk for fracture.
- Glucocorticoid-induced osteoporosis (treatment), in men and women at high risk for fracture associated with sustained systemic glucocorticoid therapy (daily dosage equivalent to 5 mg or greater of prednisone).

Abaloparatide (Tymlos), a human parathyroid hormone related peptide (PTHrP[1-34]) analog, is indicated for the treatment of postmenopausal women with osteoporosis at high risk for fracture.[3]

In general, for all indications, patients at high risk for fracture are defined as those with a history of osteoporotic fractures, have multiple risk factors for fracture, or have failed or are intolerant to other osteoporosis therapy.[1-3]

Teriparatide has been used for patients with hypoparathyroidism.[4-11] Natpara® (parathyroid hormone injection for subcutaneous use) is indicated as an adjunct to calcium and vitamin D to control hypocalcemia in patients with hypoparathyroidism.[12] However, there is a recall of Natpara and teriparatide is one of two main alternatives recommended in a joint guidance statement from the American Society for Bone and Mineral Research (ASBMR) and Endocrine Society for patients with hypoparathyroidism transitioning from Natpara.[13] It is notable that if teriparatide therapy is used in this clinical scenario, twice daily or even three times daily injections are usually needed.

Guidelines

Teriparatide is addressed in various clinical guidelines.

- Postmenopausal Osteoporosis: Teriparatide products are mentioned in guidelines for postmenopausal osteoporosis by the Endocrine Society (2019)[14] and the American Association of Clinical Endocrinologists (AACE) and the American College of Endocrinology (ACE) [2020][15]. Teriparatide is one of among several agents cited as an alternative for patients at very high risk for fractures or among those who cannot tolerate oral therapy. However, teriparatide therapy should be limited to a duration of 2 years in a lifetime.
- Glucocorticoid-Induced Osteoporosis (GIO): The American College of Rheumatology (ACR) updated guidelines for the prevention and treatment of GIO (2017).[16] In various clinical scenarios, teriparatide is recommended after trial of other agents (e.g., oral bisphosphonates, intravenous bisphosphonates).

Abaloparatide is also addressed in various clinical guidelines.
Guidelines for osteoporosis in postmenopausal women from the Endocrine Society (2019)[14] as well as from the American Association of Clinical Endocrinologists (AACE) and the American College of Endocrinology (ACE) [2020][15] discuss Tymlos. In general, Tymlos is one of several alternatives recommended in patients who are at high risk of fracture or in those unable to utilize oral bisphosphonate therapy.

Safety
The prescribing information for teriparatide products include a warning regarding an increased incidence of osteosarcoma in rats at doses 3 to 60 times the exposure in humans administered as a 20 mcg dose.[1] Due to these risks, the agent should not be given to those who have an increased baseline risk for osteosarcoma. The prescribing information does not recommend use of teriparatide for more than 2 years because its safety and efficacy beyond this timeframe have not been evaluated.

The prescribing information for Tymlos includes a Boxed Warning regarding an increased incidence of osteosarcoma in rats at doses 4 to 28 times the exposure in humans administered as a 80 mcg dose.[3] Due to these risks, the agent should not be given to those who have an increased baseline risk for osteosarcoma. The prescribing information for Tymlos states that cumulative use of Tymlos and parathyroid hormone analogs (e.g., teriparatide injection for subcutaneous use [Forteo®/Bonsity®]) for > 2 years during a patient's lifetime is not recommended.

References

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