

PRIOR AUTHORIZATION POLICY

POLICY: Bone Modifiers – Tymlos Prior Authorization Policy

- Tymlos® (abaloparatide subcutaneous injection – Radius)

REVIEW DATE: 09/07/2022; selected revision 01/04/2023

OVERVIEW

Tymlos, a human parathyroid hormone related peptide analog, is indicated for the following uses:¹

- **Osteoporosis, treatment of postmenopausal women**, at high risk for fracture.
- **Osteoporosis, treatment to increase bone density in men**, at high risk for fracture.

Patients at high risk for fracture are defined as those with a history of osteoporotic fracture, have multiple risk factors for fracture, or have failed or are intolerant to other osteoporosis therapy.

Guidelines

Guidelines for osteoporosis in postmenopausal women from the Endocrine Society (2019)² as well as from the American Association of Clinical Endocrinologists and the American College of Endocrinology (2020)³ 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. The Bone Health and Osteoporosis clinician guide to prevent and treat osteoporosis (2022) cites robust reductions in vertebral and non-vertebral fractures with Tymlos therapy in postmenopausal women with osteoporosis.⁴

Safety

The prescribing information for Tymlos states that the safety and efficacy of Tymlos have not been evaluated beyond 2 years of therapy. Use of the medication for more than 2 year during a patient's lifetime is not recommended. There are limited data evaluating the risk of osteosarcoma beyond 2 years of Tymlos and/or use of a parathyroid hormone analog. Avoid use of Tymlos in patients who are at increased baseline risk of osteosarcoma (e.g., open epiphyses [pediatric and young adult patients], those with metabolic bone disease, patients with bone metastases or a history of skeletal malignancies).

POLICY STATEMENT

Prior Authorization is recommended for prescription benefit coverage of Tymlos. All approvals are provided for the duration noted below. In the approval indication, as appropriate, an asterisk (*) is noted next to the specified gender. In this context, the specified gender is defined as follows: men are defined as individuals with the biological traits of a man, regardless of the individual's gender identity or gender expression.

Automation: Smart Coverage Review uses patient claim history to answer Prior Authorization questions regarding medication history of Boniva® (ibandronate intravenous injection) or Reclast® (zoledronic acid intravenous infusion). A 2-year look back period will be used to check claim history and automate for use of either agent (Boniva intravenous injection or Reclast). If not in claims, medication history can be obtained through Prior Authorization criteria. For all reviews, other Prior Authorization criteria listed below will also be applied.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Tymlos is recommended in those who meet one of the following criteria:

FDA-Approved Indications

- 1. Osteoporosis Treatment for a Postmenopausal Patient.** Approve for up to 2 years (total) during a patient's lifetime if the patient meets the following criteria (A and B):

Note: For example, a patient who has already received 3 months of treatment with Tymlos should be approved for a duration of 21 months. This allows for completion of a maximum of 2 years of therapy during the patient's lifetime.

- A) Patient meets ONE of the following conditions (i, ii, or iii):**

- i.** Patient has had a T-score (current or at any time in the past) at or below -2.5 at the lumbar spine, femoral neck, total hip and/or 33% (one-third) radius (wrist); OR
- ii.** Patient has had an osteoporotic fracture or a fragility fracture; OR
- iii.** The patient meets both of the following (a and b):
 - a)** Patient has low bone mass; AND
Note: An example of low bone mass includes a T-score (current or at any time in the past) between -1.0 and -2.5 at the lumbar spine, femoral neck, total hip, and/or 33% (one-third) radius (wrist).
 - b)** Prescriber determines the patient is at high risk for fracture; AND

- B) Patient meets ONE of the following (i, ii, iii, or iv):**

- i.** Patient has tried ibandronate intravenous injection (Boniva) or zoledronic acid intravenous infusion (Reclast); OR
- ii.** Patient has tried at least one oral bisphosphonate or oral bisphosphonate-containing product and meets one of the following (a, b, or c):

Note: Examples of oral bisphosphonate products include Fosamax (alendronate tablets and oral solution), Fosamax Plus D (alendronate/cholecalciferol tablets), Actonel (risedronate tablets), Atelvia (risedronate delayed-release tablets), and Boniva (ibandronate tablets).

- a)** Patient has experienced inadequate efficacy to oral bisphosphonate therapy after a trial duration of 12 months as determined by the prescriber; OR
Note: An example of an inadequate efficacy is ongoing and significant loss of bone mineral density (BMD) or a lack of a BMD increase.
- b)** Patient has had an osteoporotic fracture or fragility fracture while receiving oral bisphosphonate therapy; OR
- c)** Patient has experienced significant intolerance to an oral bisphosphonate; OR
Note: Examples of significant intolerance include severe gastrointestinal related adverse events, severe musculoskeletal related adverse events, or a femoral fracture.

- iii.** Patient cannot take an oral bisphosphonate due to one of the following circumstances (a, b, or c):

- a)** Patient cannot swallow or has difficulty swallowing; OR
- b)** Patient cannot remain in an upright position post oral bisphosphonate administration; OR
- c)** Patient has a pre-existing gastrointestinal medical condition; OR
Note: Examples of pre-existing gastrointestinal medical conditions include esophageal lesions, esophageal ulcers, or abnormalities of the esophagus that delay esophageal emptying (stricture, achalasia).

- iv.** Patient meets one of the following conditions (a, b, or c):

- a)** Severe renal impairment; OR
Note: An example of severe renal impairment is a creatinine clearance < 35 mL/min.
 - b)** Chronic kidney disease; OR
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- c) Patient has had an osteoporotic fracture or a fragility fracture.

2. Osteoporosis – Treatment in Men*. Approve for up to 2 years (total) during a patient's lifetime if the patient meets the following criteria (A and B):

Note: For example, a patient who has already received 3 months of treatment with Tymlos should be approved for a duration of 21 months. This allows for completion of a maximum of 2 years of therapy during the patient's lifetime.

A) Patient meets ONE of the following conditions (i, ii, or iii):

- i. Patient has had a T-score (current or at any time in the past) at or below -2.5 at the lumbar spine, femoral neck, total hip and/or 33% (one-third) radius (wrist); OR
- ii. Patient has had an osteoporotic fracture or a fragility fracture; OR
- iii. The patient meets both of the following (a and b):
 - a) Patient has low bone mass; AND
Note: An example of low bone mass includes a T-score (current or at any time in the past) between -1.0 and -2.5 at the lumbar spine, femoral neck, total hip, and/or 33% (one-third) radius (wrist).
 - b) Prescriber determines the patient is at high risk for fracture; AND

B) Patient meets ONE of the following (i, ii, iii, or iv):

- i. Patient has tried zoledronic acid intravenous infusion (Reclast); OR
- ii. Patient has tried at least one oral bisphosphonate or oral bisphosphonate-containing product and meets one of the following (a, b, or c):
Note: Examples of oral bisphosphonate products include Fosamax (alendronate tablets and oral solution), Fosamax Plus D (alendronate/cholecalciferol tablets), Actonel (risedronate tablets), Atelvia (risedronate delayed-release tablets), and Boniva (ibandronate tablets).
 - a) Patient has experienced inadequate efficacy to oral bisphosphonate therapy after a trial duration of 12 months as determined by the prescriber; OR
Note: An example of an inadequate efficacy is ongoing and significant loss of bone mineral density (BMD) or a lack of a BMD increase.
 - b) Patient has had an osteoporotic fracture or fragility fracture while receiving oral bisphosphonate therapy; OR
 - c) Patient has experienced significant intolerance to an oral bisphosphonate; OR
Note: Examples of significant intolerance include severe gastrointestinal related adverse events, severe musculoskeletal related adverse events, or a femoral fracture.
- iii. Patient cannot take an oral bisphosphonate due to one of the following circumstances (a, b, or c):
 - a) Patient cannot swallow or has difficulty swallowing; OR
 - b) Patient cannot remain in an upright position post oral bisphosphonate administration; OR
 - c) Patient has a pre-existing gastrointestinal medical condition; OR
Note: Examples of pre-existing gastrointestinal medical conditions include esophageal lesions, esophageal ulcers, or abnormalities of the esophagus that delay esophageal emptying (stricture, achalasia).
- iv. Patient meets one of the following conditions (a, b, or c):
 - a) Severe renal impairment; OR
Note: An example of severe renal impairment is a creatinine clearance < 35 mL/min.
 - b) Chronic kidney disease; OR
 - c) Patient has had an osteoporotic fracture or a fragility fracture.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Tymlos is not recommended in the following situations:

1. Concurrent Use with Other Medications for Osteoporosis.

Note: Examples of medications for osteoporosis that Tymlos should not be given with include Prolia (denosumab subcutaneous injection), oral bisphosphonates (alendronate, risedronate, ibandronate), intravenous bisphosphonates (zoledronic acid intravenous infusion [Reclast], ibandronate intravenous injection), calcitonin nasal spray (Miacalcin/Fortical), teriparatide subcutaneous injection (Forteo), and Evenity (romosozumab-aqqg subcutaneous injection). However, this does NOT exclude use of calcium and/or vitamin D supplements in combination with Tymlos.

2. Osteoporosis Prevention. Tymlos has not been studied in this patient population. The benefits and risks of building bone with Tymlos in a condition in which substantial bone loss has not occurred have not been investigated.¹

3. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Tymlos® subcutaneous injection [prescribing information]. Boston, MA: Radius; December 2022.
 2. Eastell R, Rosen CJ, Black DM, et al. Pharmacological management of osteoporosis in postmenopausal women: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab.* 2019;104(5):1595-1622.
 3. Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists and American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis-2020 update. *Endocrin Pract.* 2020;26(Suppl 1):1-46.
 4. LeBoff MS, Greenspan SL, Insogna KL, et al. The clinician's guide to prevention and treatment of osteoporosis. *Osteoporosis Int.* 2022;33(10):2049-2102.
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HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	Osteoporosis Treatment for a Postmenopausal Patient: The criteria that requires low bone mass had the definition moved from the criteria to a Note. Wording for the criterion regarding inadequate response to an oral bisphosphonate was changed to “experienced inadequate efficacy”. Examples of inadequate efficacy to an oral bisphosphonate were moved from the criteria to a Note. Wording of the criterion regarding intolerability to an oral bisphosphonate was changed to “experienced significant intolerance”. Examples of significant intolerance were moved from the criteria to a Note. For the criterion that addresses if the patient has a pre-existing gastrointestinal medical condition, examples were moved from the criteria to a Note. For the criterion that addresses severe renal impairment, the example provided of creatinine clearance < 35 mL/min was moved from the criteria to a Note. Borsity was removed from the examples listed in the criteria as it is no longer available.	08/18/2021
Selected Revision	The Policy Statement was revised to refer to the criteria for the therapy duration. The statement that “Cumulative coverage with Tymlos and teriparatide subcutaneous injection (Forteo) is recommended for up to 2 years of a patient’s lifetime” was removed. The wording that “All approvals are provided for up to 2 years in duration unless otherwise noted” was changed to “All approvals are provided for the duration noted below (referring to the criteria)”. Osteoporosis Treatment in a Woman: The criteria which stated that “Use of Tymlos and/or teriparatide subcutaneous injection (Forteo) does not exceed 2 years during a patient’s lifetime” was deleted, along with the Note which stated “Approve the duration necessary to complete a maximum of 2 years of therapy during a patient’s lifetime (e.g., a patient who has already received 3 months of treatment with Tymlos or teriparatide [Forteo] should be approved for a duration of 21 months. This allows for completion of a maximum of 2 years of therapy).” Instead of a specific criterion, the duration was placed by the indication and to the current wording of “Approve for up to 2 years (total), the wording of “during a patient’s lifetime” was added, referring only to Tymlos therapy. A Note was also added which states “For example, a patient who has already received 3 months of treatment with Tymlos should be approved for a duration of 21 months. This allows for completion of a maximum of 2 years of therapy during the patient’s lifetime.”	03/16/2022
Annual Revision	Concurrent Use with Other Medications for Osteoporosis: To the Note which lists the medications that should not be used with Tymlos, it was clarified that this does NOT exclude use of calcium and/or vitamin D supplements in combination with Tymlos.	09/07/2022
Selected Revision	Osteoporosis – Treatment in Men: This was added as a new condition of approval.	01/04/2023