

Clinical Policy: Olaratumab (Lartruvo)

Reference Number: PA.CP.PHAR.326

Effective Date: 01/2018

Last Review Date: 10/2023

[Coding Implications](#)
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Description

Olaratumab (Lartruvo[®]) is a platelet-derived growth factor receptor alpha (PDGFR- α) blocking antibody.

FDA Approved Indication(s)*

Lartruvo was indicated in combination with doxorubicin for the treatment of adult patients with soft tissue sarcoma (STS) with a histologic subtype for which an anthracycline-containing regimen is appropriate and which is not amenable to curative treatment with radiotherapy or surgery.

Limitation(s) of use: This indication was approved under accelerated approval. Continued approval for this indication was contingent upon verification and description of clinical benefit in the confirmatory trial.

***Eli Lilly and Co, manufacturer of Lartruvo, was issued a letter revoking the approval to manufacture and market Lartruvo (see Appendix E).**

Policy/Criteria

It is the policy of PA Health & Wellness[®] that Lartruvo is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Soft Tissue Sarcoma (must meet all):

1. Authorization is not permitted. Member may not initiate therapy with Lartruvo. If member is currently using Lartruvo proceed to section II. A. Soft Tissue Sarcoma for continued therapy criteria (*see Appendix E*).

B. Other diagnoses/indications: Refer to PA.CP.PMN.53

II. Continued Approval

A. Soft Tissue Sarcoma (must meet all):

1. Currently receiving medication via PA Health & Wellness benefit or member is currently receiving the medication for the treatment of soft tissue sarcoma or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
2. Member is responding positively to therapy;
3. Patient has not had disease progression on Lartruvo;
4. If request is for a dose increase, request meets one of the following (a or b):
 - a. New dose does not exceed 15 mg/kg on Days 1 and 8 of each 21-day cycle;
 - b. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

Approval duration: 12 months

B. Other diagnoses/indications (must meet 1 or 2):

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy; or the Continuity of Care policy (PA.LTSS.PHAR.01) applies; or
2. Refer to PA.CP.PMN.53

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

FDA: Food and Drug Administration
 NCCN: National Comprehensive Cancer Network

PDGFR- α : platelet-derived growth factor receptor alpha
 STS: soft tissue sarcoma

Appendix B: Therapeutic Alternatives

This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent for all relevant lines of business and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/Maximum Dose
doxorubicin HCL (Adriamycin®)	Labeled dosing regimen for metastatic STS: <ul style="list-style-type: none"> • As a single agent: 60 to 75 mg/m² IV every 21 days. • In combination with other chemotherapy drugs: 40 to 75 mg/m² IV every 21 to 28 days. • Consider use of the lower doxorubicin dose in the recommended dose range or longer intervals between cycles for heavily pretreated patients, elderly patients, or obese patients. • Cumulative doses above 550 mg/m² are associated with an increased risk of cardiomyopathy. 	Varies

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.

Appendix C: Contraindications/Black Box Warnings

None reported

Appendix D: STS Subtypes

- Sarcomas are divided into STS and sarcomas of bone.
- More than 50 STS histologic subtypes have been identified. Common subtypes include undifferentiated sarcoma, gastrointestinal stromal tumor, liposarcoma, and leiomyosarcoma.
- The most common anatomic STS locations are extremities, trunk, visceral, retroperitoneum, and head and neck. Rhabdomyosarcoma is the most common STS of children and adolescents and is less common in adults.

Appendix E: ANNOUNCE Trial: NCCN and FDA update

- NCCN no longer recommends Lartruvo in combination with doxorubicin as a treatment option for:
 - Soft tissue sarcoma subtypes with non-specific histologies (soft tissue sarcoma [version 2.2019]). The following language has been deleted from the guideline: For use in STS histologies for which an anthracycline-containing regimen is appropriate.
 - Uterine sarcoma (uterine neoplasms [version 3.2019])
- January 18, 2019, Eli Lilly reported in a press release that the confirmatory study required as a condition of Lartruvo’s accelerated approval, entitled “Randomized, Double-Blind, Placebo-Controlled, Phase 3 Trial of Doxorubicin Plus Olaratumab Versus Doxorubicin Plus Placebo in Patients With Advanced or Metastatic Soft Tissue Sarcoma” (ANNOUNCE trial), “did not meet the primary endpoints of overall survival in the full study population or in the leiomyosarcoma subpopulation.”
- January 24th, 2019 updated: In light of this information, the FDA recommends that patients who are currently receiving Lartruvo should consult with their healthcare provider about whether to remain on the treatment. The FDA also recommends that Lartruvo should not be initiated in new patients outside of an investigational study.
- September 27, 2019, Eli Lilly requested withdrawal (revocation), in writing, of the BLA for Lartruvo (BLA 761038) because the ANNOUNCEp0 trial failed to demonstrate improvement in overall survival for olaratumab in combination with doxorubicin compared to doxorubicin alone. In that letter, Eli Lilly waived its opportunity for a hearing.
- On February 25, 2020, the FDA issued a letter to Eli Lilly revoking the approval to manufacture and market Lartruvo.

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
STS	15 mg/kg IV over 60 minutes on Days 1 and 8 of each 21-day cycle until disease progression or unacceptable toxicity. For first 8 cycles, Lartruvo is administered with doxorubicin. Refer to doxorubicin prescribing information for dosing, and dose modifications.	15 mg/kg per infusion

V. Product Availability

Single-dose vial: 500 mg/50 mL, 190 mg/19 mL

VI. References

1. Lartruvo Prescribing Information. Indianapolis, IN: Eli Lilly and Company; August 2018. Available at <http://pi.lilly.com/us/lartruvo-uspi.pdf>. Accessed August 1, 2023.
2. National Comprehensive Cancer Network. Soft Tissue Sarcoma Version 2.2022. Available at: http://www.nccn.org/professionals/physician_gls/pdf/sarcoma.pdf. Accessed August 1, 2023.
3. National Comprehensive Cancer Network. Uterine Neoplasms Version 1.2022. Available at: http://www.nccn.org/professionals/physician_gls/pdf/uterine.pdf. Accessed August 1, 2023.

4. Doxorubicin Prescribing Information. New York, NY: Pfizer, Inc. May 2020. Available at: <http://labeling.pfizer.com/showlabeling.aspx?id=530>. Accessed August 1, 2023.
5. Clinical Pharmacology [database online]. Tampa, FL: Elsevier; 2022. Available at: <http://www.clinicalkeys.com/pharmacology>.
6. Tap WD, Jones RL, Van Tine BA, et al. Olaratumab and doxorubicin versus doxorubicin alone for treatment of soft-tissue sarcoma: an open-label phase 1b and randomised phase 2 trial [published correction appears in *Lancet*. 2016 Jul 30;388(10043):464]. *Lancet*. 2016;388(10043):488-497.
7. Eli Lilly and Co.; Announcement of the Revocation of the Biologics License for Lartruvo. July 2020. Available at: <https://www.federalregister.gov/documents/2020/07/17/2020-15516/eli-lilly-and-co-announcement-of-the-revocation-of-the-biologics-license-for-lartruvo>. Accessed August 1, 2023.

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
J9285	Injection, olaratumab, 10 mg

Reviews, Revisions, and Approvals	Date	Approval Date
4Q 2018 annual review: no significant changes; NCCN and FDA-approved uses summarized for improved clarity; specialist involvement in care and continuation of care added; references reviewed and updated.	08/2018	
4Q 2019 annual review: No changes per Statewide PDL implementation 01-01-2020	10/2019	
4Q 2020 annual review: Added age limit; updated appendices; references reviewed and updated.	08/2020	
Removed initial approval criteria for soft tissue sarcoma; added criteria to continuation approval for soft tissue sarcoma requiring patient has not had disease progression on Lartruvo; added Appendix E: FDA update due to ANNOUNCE trial results; references reviewed and updated.	01/2021	
4Q 2021 annual review: no significant changes; references reviewed and updated.	10/2021	
4Q 2022 annual review: no significant changes; references reviewed and updated.	10/2022	
4Q 2023 annual review: no significant changes; references reviewed and updated.	10/2023	