Clinical Policy: Moxetumomab pasudotox-tdfk (Lumoxiti)

Reference Number: PA.CP.PHAR.398
Effective Date: 01/2019
Last Review Date: 10/2023

Revision Log

Description
Moxetumomab pasudotox-tdfk (Lumoxiti™) is a CD22-directed cytotoxin.

FDA Approved Indication(s)
Lumoxiti is indicated for the treatment of adult patients with relapsed or refractory hairy cell leukemia (HCL) who received at least two prior systemic therapies, including treatment with a purine nucleoside analog (PNA).

Limitation(s) of use: Not recommended in patients with severe renal impairment (CrCl ≤ 29 mL/min).

Policy/Criteria
Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

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

I. Initial Approval Criteria

A. Hairy Cell Leukemia (must meet all)**:**
Authoriziation is not permitted. Member may not initiate therapy with Lumoxiti. If member is currently using Lumoxiti proceed to section II.A. Hairy Cell Leukemia for continued therapy (*see Appendix E).*
Approval duration: Not applicable

B. Other diagnoses/indications
1. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53.

II. Continued Therapy

A. Hairy Cell Leukemia (must meet all)**:**
1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
2. Member is responding positively to therapy;
3. Member has not received ≥ 6 treatment cycles;
4. If request is for a dose increase, request meets one of the following (a or b):
   a. New dose does not exceed 0.04 mg/kg/dose (actual body weight) for three days of each 28-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: 6 months (total of 6 cycles)

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.
   Approval duration: Duration of request or 6 months (whichever is less); or
2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53.

III. Diagnoses/Indications for which coverage is NOT authorized:

A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policy – PA.CP.PMN.53 evidence of coverage documents.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

CLS: Capillary Leak Syndrome
CR: complete response
FDA: Food and Drug Administration
HCL: hairy cell leukemia
HUS: Hemolytic Uremic Syndrome
PNA: purine nucleoside analog

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
cladribine *(purine analog)*	Adult dose: 0.09 mg/kg IV QD for 7 days (off-label SC dosing has been evaluated).	0.09 mg/kg/day
Nipent® (pentostatin) *(purine analog)*	Adult dose: 4 mg/m^2 IV once every other week up to 6 months if failure to respond.	4 mg/m^2/dose once every other week
Intron A® (interferon alfa-2b)	Adult dose: 2 million units/m^2 IM or SC 3 times a week for up to 6 months if failure to respond.	2 million units/m^2/dose
Rituxan® (rituximab)	Off-label adult dose: 375 mg/m^2 IV weekly up to 10 weeks has been reported. (Micromedex)	Varies
Imbruvica® (ibrutinib)	Off-label adult dose: 420 mg PO QD in 28-day cycles until unacceptable toxicity or progressive disease. (Jones 2016)	Varies
Zelboraf® (vemurafenib)	Off-label adult dose: 960 mg PO BID for up to 24 weeks. (Clinical Pharmacology)	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/Boxed Warnings

- Contraindication(s): none reported
- Boxed warning(s): capillary leak syndrome (CLS) and hemolytic uremic syndrome (HUS)

Appendix D: General Information

The National Comprehensive Cancer Network (NCCN) HCL treatment recommendations:

- First-line therapy: purine analogs (cladribine, Nipent® (pentostatin)).
- Second-line therapy for relapse/refractory or progressive disease:
  - Disease relapse ≥ 2 years after achieving CR to initial therapy:
    - Retreatment with the same purine analog ± rituximab
    - An alternate purine analog ± rituximab
    - Rituximab monotherapy if unable to receive a purine analog
  - Disease relapse < 2 years or less than CR after initial therapy:
    - An alternative purine analog ± rituximab
    - Zelboraf® (vemurafenib) ± rituximab
    - Peginterferon-alfa 2a (may be substituted for other interferon preparations)
    - Rituximab monotherapy if unable to receive purine analog
    - Zelboraf® (vemurafenib)
- Third-line therapy and beyond for progressive disease:
  - Zelboraf® (vemurafenib) ± rituximab
  - Imbruvica® (ibrutinib)

Appendix E: Permanent Withdrawal of Lumoxiti from the US Market

- On November 18, 2022, AztraZeneca announced the decision to permanently discontinue Lumoxiti from the US market in July 2023. AztraZeneca advises distributors to stop all distribution in August 2023. Also starting in August 2023, AztraZeneca will request returns of Lumoxiti packs from distributors.
- The removal of Lumoxiti from the US market is not related to the safety or efficacy of the medicinal product. There has been very low clinical uptake of Lumoxiti since FDA approval, due to the availability of other treatment options and possibly due to the specialized complexity of administration, toxicity prophylaxis and safety monitoring needs for patients.
- Action required for prescribers: physicians should not initiate new treatment with Lumoxiti with immediate effect. Physicians who are currently treating patinets with Lumoxiti will have adequate time to complete six cycles of treatment.

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
HCL	0.04 mg/kg IV on Days 1, 3, and 5 of each 28-day cycle. Continue treatment for maximum of 6 cycles, disease progression, or unacceptable toxicity.	0.04 mg/kg/dose (actual body weight)

VI. Product Availability

Single-dose vial: 1 mg

VII. References

1. Lumoxiti Prescribing Information. Wilmington, DE: AstraZeneca Pharmaceuticals LP; November 2022. Available at: https://www.lumoxiti.com/. Accessed July 10, 2023.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at nccn.org. Accessed July 10, 2023.
3. National Comprehensive Cancer Network Guidelines. Hairy Cell Leukemia Version 1.2023. Available at: https://www.nccn.org/professionals/physician_gls/pdf/hairy_cell.pdf. Accessed July 10, 2023.
4. AztraZeneca. Important prescribing information update – permanent withdrawal of Lumoxiti from the US market. November 18, 2022. Available at: https://www.lumoxiti.com/content/dam/open-digital/moxe_dtc/en/pdf/LUMOXITI-Prescribing-information.pdf. Accessed August 9, 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
J9313	Injection, moxetumomab pasudotox-tdfk, 0.01 mg

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created	01/2019	
4Q 2019 annual review: No changes per Statewide PDL implementation 01-01-2020	10/2019	
4Q 2020 annual review: Updated dosing and reviewed and updated references.	08/2020	
4Q 2021 annual review: added HCPCS codes; reference reviewed and updated.	10/2021	
4Q 2022 annual review: changed approval duration to 6 months for initial and continued therapy; added maximum of 6 cylcles per PI; references reviewed and updated.	10/2022	
4Q 2023 annual review: removed initial approval criteria for HCL due to manufacturer withdrawal, added Appendix E with details of market withdrawal; references reviewed and updated	10/2023	