Clinical Policy: Moxetumomab pasudotox-tdfk (Lumoxiti)

Reference Number: LA.PHAR.398
Effective Date: 03.16.23
Last Review Date: 05.21.24~~06.25.23~~
Line of Business: Medicaid

Revision Log

See Important Reminder at the end of this policy for important regulatory and legal information.

****Please note: This policy is for medical benefit****

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 Louisiana Healthcare Connections that Lumoxiti is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Hairy Cell Leukemia (must meet all)**:**

~~1. Diagnosis of HCL;~~
~~2. Prescribed by or in consultation with an oncologist or hematologist;~~
~~3. Age ≥ 18 years;~~
~~4. Disease is relapsed or refractory;~~
~~5. Received at least two prior systemic therapies *(see Appendix B for examples)*, one of which must be a purine nucleoside analog (e.g., cladribine, Nipent®), unless all are contraindicated or clinically significant adverse effects are experienced;*~~
~~**Prior authorization may be required.*~~
~~6. Lumoxiti is prescribed for no more than 6 cycles total;~~
~~7. Request meets one of the following (a or b):*~~
~~a. Dose does not exceed 0.04 mg/kg/dose (actual body weight) for three days of each 28-day cycle;~~
~~b. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).~~
~~**Prescribed regimen must be FDA approved or recommended by NCCN.*~~

1. 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: ~~6 months (total of 6 cycles)~~Not applicable

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

~~1.~~a. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to LA.PMN.255

2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy LA.PMN.53

II. Continued Therapy

A. Hairy Cell Leukemia (must meet all)**:**

1. Currently receiving medication via Louisiana Healthcare Connections benefit, or documentation supports that member is currently receiving Lumoxiti for a covered indication and has received this medication for at least 30 days;
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*).

**Prescribed regimen must be FDA-approved or recommended by NCCN.*

Approval duration: 6 months (total of 6 cycles)

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

~~a.~~1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to LA.PMN.255

~~b.~~2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy LA.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 policies – LA.PMN.53 for Medicaid or evidence of coverage documents.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

CLS: capillary leak syndrome	HCL: hairy cell leukemia
CR: complete response	HUS: hemolytic uremic syndrome
FDA: Food and Drug Administration	

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NCCN: National Comprehensive Cancer Cancer

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 ± rituximab, 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)

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- 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; ~~February~~November 2022. Available at: https://www.lumoxiti.com/. Accessed ~~August 11, 2022~~June 30, 2023.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at nccn.org. Accessed ~~August 11, 2022~~July 10, 2023.
3. National Comprehensive Cancer Network Guidelines. Hairy Cell Leukemia Version 1.~~2022~~2023. Available at: https://www.nccn.org/professionals/physician_gls/pdf/hairy_cell.pdf. Accessed July 10, 2023.
~~3.~~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 ~~11, 2022.~~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-

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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	LDH Approval Date
Converted corporate to local policy	02.23	03.16.23
Updated criteria for other diagnoses/indications	06.25.23	10.05.23
Annual review: removed initial approval criteria for HCL due to manufacturer withdrawal, added Appendix E with details of market withdrawal; references reviewed and updated.	05.21.24	

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable LHCC administrative policies and procedures.

This clinical policy is effective as of the date determined by LHCC. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. LHCC retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to

recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom LHCC has no control or right of control. Providers are not agents or employees of LHCC.

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