Clinical Policy: Moxetumomab Pasudotox-tdfk (Lumoxiti)

Reference Number: ERX.SPA.350
Effective Date: 12.01.19
Last Review Date: 11.21
Line of Business: Commercial, Medicaid

Revision Log

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

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.

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.

Health plan approved formularies should be reviewed for all coverage determinations. Requirements to use preferred alternative agents apply only when such requirements align with the health plan approved formulary.

It is the policy of health plans affiliated with Envolve Pharmacy Solutions™ 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 clinically significant adverse effects are experienced or all are contraindicated;*
   **Prior authorization may be required.*
6. 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.*

Approval duration: 6 months

B. Other diagnoses/indications

1. Refer to ERX.PA.01 if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized).

II. Continued Therapy

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

1. Currently receiving medication via a health plan affiliated with Envolve Pharmacy Solutions, 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. 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: 12 months

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

1. Currently receiving medication via a health plan affiliated with Envolve Pharmacy Solutions and documentation supports positive response to therapy.
   Approval duration: Duration of request or 6 months (whichever is less); or
2. Refer to ERX.PA.01 if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized).

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 – ERX.PA.01 or evidence of coverage documents.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

CR: complete response
FDA: Food and Drug Administration
HCL: hairy cell leukemia
NCCN: National Comprehensive Cancer Network

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 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), 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 alternate purine analog ± rituximab
    - Peg-interferon 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)
  - Lumoxiti

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; April 2020. Available at: https://www.lumoxiti.com/. Accessed August 11, 2021.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at nccn.org. Accessed August 11, 2021.
3. National Comprehensive Cancer Network Guidelines. Hairy Cell Leukemia Version 2.2021. Available at: https://www.nccn.org/professionals/physician_gls/pdf/hairy_cell.pdf. Accessed August 11, 2021.

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created.	08.20.19	11.19
4Q 2020 annual review: no significant changes; references reviewed and updated.	08.17.20	11.20
4Q 2021 annual review: no significant changes; references reviewed and updated.	08.11.21	11.21

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.

This Clinical Policy is not intended to dictate to providers how to practice medicine, nor does it constitute a contract or guarantee regarding payment or results. 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.

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