Clinical Policy: Vincristine Sulfate Liposome Injection (Marqibo)

Reference Number: ERX.SPA.258
Effective Date: 12.01.18
Last Review Date: 11.22
Line of Business: Commercial, Medicaid

Revision Log

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

Description
Vincristine sulfate liposome injection (Marqibo®) is a vinca alkaloid.

FDA Approved Indication(s)
Marqibo is indicated for the treatment of adult patients with Philadelphia chromosome-negative (Ph-) acute lymphoblastic leukemia (ALL) in second or greater relapse or whose disease has progressed following two or more anti-leukemia therapies.*

This indication is approved under accelerated approval based on overall response rate. Continued approval for this indication may be contingent upon verification and description of clinical benefit in confirmatory trials.

*On May 2, 2022, the FDA has withdrawn approval of Marqibo after a postmarking clinical trial failed to verify the clinical benefit of the drug. The most updated NCCN guidance (Acute Lymphoblastic Leukemia v1.2022) still supports usage.

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 Marqibo is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Acute Lymphoblastic Leukemia (off-label) (must meet all)**:**

1. Diagnosis of ALL;
2. Prescribed by or in consultation with an oncologist or hematologist;
3. Age ≥ 18 years;
4. One of the following (a or b):*
   a. For members with Ph- ALL, disease has relapsed ≥ 2 times or has progressed following ≥ 2 anti-leukemia therapies;
   b. For members with Philadelphia chromosome-positive (Ph+) ALL, disease is refractory to tyrosine kinase inhibitor therapy (e.g., imatinib [Gleevec®], Sprycel®, Tasigna®, Bosulif®, Iclusig®);

   **Prior authorization may be required.*
5. Prescribed as a single agent;
6. Request meets one of the following (a or b):*
   a. Dose does not exceed 2.25 mg/m^2 every 7 days;
   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. Acute Lymphoblastic Leukemia (off-label) (must meet all)**:**

1. Currently receiving medication via a health plan affiliated with Envolve Pharmacy Solutions, or documentation supports that member is currently receiving Marqibo 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 2.25 mg/m^2 every 7 days;
   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;

B. Members with the demyelinating form of Charcot-Marie-Tooth syndrome.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

ALL: acute lymphoblastic leukemia
FDA: Food and Drug Administration
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
Examples of Ph- ALL anti-leukemia therapies		
• CALGB 8811 Larson regimen: daunorubicin, vincristine, prednisone, pegaspargase, cyclophosphamide • Single agent therapies such as blinatumomab, inotuzumab ozogamicin	Varies	Varies
Ph+ ALL tyrosine kinase inhibitor therapy		
imatinib (Gleevec)	600 mg PO QD	600 mg/day
Sprycel (dasatinib)	140 mg PO QD	180 mg/day
Tasigna (nilotinib)	400 mg PO BID	800 mg/day
Bosulif (bosutinib)	400-500 mg PO QD	600 mg/day
Iclusig (ponatinib)	45 mg PO QD	45 mg/day

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):
  - Patients with demyelinating conditions including Charcot-Marie-Tooth syndrome
  - Hypersensitivity to vincristine sulfate or any of the other components of Marqibo (vinCRIStine sulfate LIPOSOME injection)
  - Intrathecal administration
- Boxed warning(s): for intravenous use only – fatal if given by other routes; dosage recommendations differ from vincristine sulfate, verify drug name and dose to avoid overdosage

Appendix D: General Information
On May 2, 2022, the FDA withdrew approval of Marqibo after a postmarking clinical trial failed to verify the clinical benefit of the drug. The manufacturer voluntarily withdrew its new drug application, and drug approval was subsequently withdrawn.

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
ALL (off-label)	2.25 mg/m^2 IV over 1 hour once every 7 days	See dosing regimen

VI. Product Availability
Marqibo Kit containing the following:
- Vial: vincristine sulfate injection, USP 5 mg/5 mL (1 mg/mL)
- Vial: sphingomyelin/cholesterol liposome injection 103 mg/mL
- Vial: sodium phosphate injection 355 mg/25 mL (14.2 mg/mL)

VII. References
1. Marqibo Prescribing Information. East Windsor, NJ: Acrotech Biopharma, LLC; March 2022. Available at: https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/202497Orig1s013lbl.pdf. Accessed August 2, 2022.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at www.nccn.org. Accessed August 2, 2022
3. National Comprehensive Cancer Network. Acute Lymphoblastic Leukemia Version 1.2022. Available at www.nccn.org. Accessed August 2, 2022.
4. Food and Drug Administration, HHS. Acrotech Biopharm LLC; Withdrawal of approval of new drug application for Marqibo (vincristine sulfate liposome injection), 5 milligrams/ 5 milliliters. Federal Register. May 2, 2022. Available at https://www.federalregister.gov/documents/2022/05/02/2022-09235/acrotech-biopharma-llc-withdrawal-of-approval-of-new-drug-application-for-marqibo-vincristine. Accessed August 2, 2022.

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created	08.07.18	11.18
4Q 2019 annual review: no significant changes; Ph- anti-leukemia therapy examples added to Appendix B; FDA/NCCN dosing limitation added; references reviewed and updated.	08.27.19	11.19
4Q 2020 annual review: no significant changes; references reviewed and updated.	08.11.20	11.20
4Q 2021 annual review: added requirement for use as a single agent per NCCN and pivotal trial; updated Appendix C to include hypersensitivity contraindication; references reviewed and updated.	06.28.21	11.21
4Q 2022 annual review: no significant changes; changed to off-label usage for ALL due to FDA withdrawal but still supported by NCCN; references reviewed and updated.	08.02.22	11.22

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.