Clinical Policy: Mavorixafor (Xolremdi)

Reference Number: PA.CP.PHAR.679
Effective Date: 05/2025
Last Review Date: 04/2025

Description
Mavorixafor (Xolremdi™) is a CXC chemokine receptor 4 (*CXCR4*) antagonist.

FDA Approved Indication(s)
Xolremdi is indicated in patients 12 years of age and older with WHIM syndrome (warts, hypogammaglobulinemia, infections and myelokathexis) to increase the number of circulating mature neutrophils and lymphocytes.

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

I. Initial Approval Criteria

A. WHIM Syndrome (must meet all)**:**

1. Diagnosis of WHIM syndrome confirmed by genetic confirmation of a *CXCR4* variant;
2. Prescribed by or in consultation with a geneticist, hematologist, immunologist, or infectious disease specialist;
3. Age ≥ 12 years;
4. Baseline absolute neutrophil count (ANC) is ≤ 400 cells/µL;
5. Documentation of member's baseline absolute lymphocyte count (ALC) and number of infections experienced within the last year;
6. Xolremdi is not prescribed concurrently with plerixafor (Mozobil®);
7. Documentation of member's current weight (in kg);
8. Dose does not exceed any of the following:
   a. Weight > 50 kg: 400 mg (4 capsules) per day;
   b. Weight ≤ 50 kg: 300 mg (3 capsules) per day.

Approval duration: 6 months

B. Other diagnoses/indications

1. Refer to the off-label use policy 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. WHIM Syndrome (must meet all)**:**

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.PHARM.01) applies;

2. Member is responding positively to therapy as evidenced by both of the following (a and b):
   a. At least two instances of an ANC ≥ 500 cells/µL, on two separate days within the last six months;
   b. One of the following (i or ii):
      i. At least two instances of an ALC ≥ 1,000 cells/µL, on two separate days within the last six months;
      ii. Reduction from baseline in infections;
3. Xolremdi is not prescribed concurrently with plerixafor (Mozobil®);
4. Documentation of member's current weight (in kg);
5. If request is for a dose increase, new dose does not exceed any of the following:
   a. Weight > 50 kg: 400 mg (4 capsules) per day;
   b. Weight ≤ 50 kg: 300 mg (3 capsules) per day.

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.PHARM.01) applies.
   Approval duration: Duration of request or 12 months (whichever is less); or
2. Refer to the off-label use policy 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 policies – PA.CP.PMN.53

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

ALC: absolute lymphocyte count
ANC: absolute neutrophil count
CXCR4: CXC chemokine receptor 4
FDA: Food and Drug Administration
WHIM: warts, hypogammaglobulinemia, infections and myelokathexis

Appendix B: Therapeutic Alternatives

Not applicable

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): concomitant use with drugs that are highly dependent on CYP2D6 for clearance
- Boxed warning(s): none reported

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
WHIM syndrome	Weight-based dosing: • > 50 kg: 400 mg PO QD	400 mg/day

Indication	Dosing Regimen	Maximum Dose
	• ≤ 50 kg: 300 mg PO QD	

VI. Product Availability

Capsule: 100 mg

VII. References

1. Xolremdi Prescribing Information. Boston, MA: X4 Pharmaceuticals, Inc.; September 2024. Available at: https://xolremdihcp.com/pdf/prescribing-information.pdf. Accessed January 21, 2025.
2. Badolato R, Alsina L, Azar A, et al. Phase 3 randomized trial of mavorixafor, CXCR4 antagonist, in WHIM syndrome. Blood 2024 Apr 21; blood.2023022658. doi:10.1182/blood.2023022658. Online ahead of print.
3. Badolato R, 4WHIM Study Group, Hu Y, et al. Results of a phase 3 trial of an oral CXCR4 antagonist, mavorixafor, for the treatment of participants with WHIM syndrome: investigational assessment of lymphocyte subpopulations in peripheral blood. J Allergy Clin Immunol 2024;153(2):AB143. https://doi.org/10.1038/s41435-022-00181-9.
4. Zmajkovicova K, Pawar S, Maier-Munsa S, et al. Genotype-phenotype correlations in WHIM syndrome: a systematic characterization of *CXCR4*^{WHIM} variants. Genes & Immunity 2022;23:196-204. https://doi.org/10.1038/s41435-022-00181-9.

Reviews, Revisions, and Approvals	Date
Policy created	04/2025