

5.85.039

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|--------------------|----------------------|------------------------------|----------------|
| <b>Section:</b>    | Prescription Drugs   | <b>Effective Date:</b>       | July 1, 2026   |
| <b>Subsection:</b> | Hematological Agents | <b>Original Policy Date:</b> | March 13, 2020 |
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**Last Review Date:** June 11, 2026

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## Mozobil

### Description

#### Mozobil (plerixafor)

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#### Background

Mozobil (plerixafor) inhibits the CXCR4 chemokine receptor and blocks binding of its cognate ligand, stromal cell-derived factor-1 $\alpha$  (SDF-1 $\alpha$ ). SDF-1 $\alpha$  and CXCR4 play a role in the trafficking and homing of human hematopoietic stem cells (HSCs) to the marrow compartment. Once in the marrow, stem cell CXCR4 can act to help anchor these cells to the marrow matrix, either directly via SDF-1 $\alpha$  or through the induction of other adhesion molecules. Treatment with Mozobil results in leukocytosis and elevations in circulating hematopoietic progenitor cells (1).

#### Regulatory Status

FDA-approved indication: Mozobil is indicated in combination with granulocyte-colony stimulating factor (G-CSF) to mobilize hematopoietic stem cells (HSCs) to the peripheral blood for collection and subsequent autologous transplantation in patients with non-Hodgkin's lymphoma and multiple myeloma (1).

Serious hypersensitivity reactions, including anaphylactic-type reactions, have occurred in patients receiving Mozobil. Patients should be observed for signs and symptoms of hypersensitivity during and after Mozobil administration for at least 30 minutes and until clinically stable following completion of each administration (1).

Mozobil may cause mobilization of leukemic cells and subsequent contamination of the apheresis product. Therefore, Mozobil is not intended for HSC mobilization and harvest in patients with leukemia (1).

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Leukocytosis and thrombocytopenia have been observed in patients receiving Mozobil. Platelet counts and white blood cell counts should be monitored in all patients who receive Mozobil (1).

Mozobil can cause fetal harm when administered to a pregnant woman. Advise pregnant women of the potential risk to the fetus. Advise females of reproductive potential to use an effective form of contraception during treatment with Mozobil and for one week after the final dose (1).

The safety and effectiveness of Mozobil in pediatric patients less than 18 years of age have not been established (1).

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#### Related policies

Aphexda

#### Policy

*This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.*

Mozobil may be considered **medically necessary** if the conditions indicated below are met.

Mozobil may be considered **investigational** for all other indications.

### Prior-Approval Requirements

**Age** 18 years of age and older

#### Diagnosis

Patient must be using for the following:

Mobilization of hematopoietic stem cells (HSCs)

**AND ALL** of the following:

1. Patient must have **ONE** of the following:
  - a. Non-Hodgkin's lymphoma
  - b. Multiple myeloma

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2. The hematopoietic stem cells (HSCs) will be used for subsequent autologous transplantation
3. Used in combination with granulocyte-colony stimulating factor (G-CSF)
4. Prescriber agrees to monitor platelets and white blood cell counts
5. Females of reproductive potential **only**: patient will be advised to use effective contraception during treatment with Mozobil and for one week after the final dose

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### **Prior-Approval *Renewal* Requirements**

Same as above

#### [Policy Guidelines](#)

### **Pre-PA Allowance**

None

### **Prior-Approval Limits**

**Duration** 12 months

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### **Prior-Approval *Renewal* Limits**

Same as above

#### [Rationale](#)

#### **Summary**

Mozobil (plerixafor) inhibits the CXCR4 chemokine receptor and blocks binding of its cognate ligand, stromal cell-derived factor-1 $\alpha$  (SDF-1 $\alpha$ ). SDF-1 $\alpha$  and CXCR4 play a role in the trafficking and homing of human hematopoietic stem cells (HSCs) to the marrow compartment. Once in the marrow, stem cell CXCR4 can act to help anchor these cells to the marrow matrix, either directly via SDF-1 $\alpha$  or through the induction of other adhesion molecules. Treatment with Mozobil results in leukocytosis and elevations in circulating hematopoietic progenitor cells. The safety and effectiveness of Mozobil in pediatric patients less than 18 years of age have not been established (1).

Prior approval is required to ensure the safe, clinically appropriate, and cost-effective use of Mozobil while maintaining optimal therapeutic outcomes.

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**References**

- 1. Mozobil [package insert]. Cambridge, MA: Genzyme Corporation; September 2023.

**Policy History**

| Date       | Action                                           |
|------------|--------------------------------------------------|
| March 2020 | Addition to PA                                   |
| June 2020  | Annual review                                    |
| June 2021  | Annual review and reference update               |
| June 2022  | Annual review                                    |
| June 2023  | Annual review. Changed policy number to 5.85.039 |
| March 2024 | Annual review and reference update               |
| June 2025  | Annual review                                    |
| June 2026  | Annual review                                    |

**Keywords**

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**This policy was approved by the FEP® Pharmacy and Medical Policy Committee on June 11, 2026 and is effective on July 1, 2026.**