CARECONTINUUM™

UTILIZATION MANAGEMENT MEDICAL POLICY

POLICY: Oncology (Injectable) – Mylotarg Utilization Management Medical Policy
- Mylotarg™ (gemtuzumab ozogamicin intravenous infusion – Pfizer)

REVIEW DATE: 07/17/2024

OVERVIEW

Mylotarg, an antibody-drug conjugate directed towards the CD33 antigen, is indicated for the following:[1]

- **CD33-positive acute myeloid leukemia (AML)**, newly diagnosed, in adults and pediatric patients ≥ 1 month of age; AND
- **CD33-positive AML**, relapsed or refractory, in adults and pediatric patients ≥ 2 years of age.

Guidelines

The National Comprehensive Cancer Network (NCCN) guidelines for **AML** (version 3.2024 – May 17, 2024) recommend Mylotarg for induction therapy, post-remission therapy, and for relapsed/refractory CD33-positive AML.[2,3] Mylotarg can be used as a single agent or in combination with cytarabine and daunorubicin. The NCCN guidelines for AML also recommend Mylotarg in patients ≥ 18 years of age for induction and consolidation therapy for acute promyelocytic leukemia, and for relapsed disease. Mylotarg can be used in combination with tretinoin and/or arsenic trioxide.

Acute Promyelocytic Leukemia – Dosing in First Morphologic or Molecular Relapse

In a pilot study, the safety and efficacy of Mylotarg in patients with acute promyelocytic leukemia in molecular relapse (n = 16) was assessed.[4] In this study, patients received up to 6 doses of Mylotarg 6 mg/m^2. Fourteen of 16 patients achieved molecular remission, seven patients achieved a sustained response lasting for a median of 15 months, and seven patients relapsed between 3 and 15 months. In a second pilot study, eight patients with acute promyelocytic leukemia in first relapse were treated with arsenic trioxide, all-trans retinoic acid, and Mylotarg.[5] Patients received Mylotarg 9 mg/m^2 given intravenously (IV) once monthly for 10 months. After consolidation, patients received maintenance therapy which included idarubicin, all-trans retinoic acid, 6-mercaptopurine, and methotrexate. Three patients completed consolidation; the other five patients received between two and seven cycles of consolidation. All patients achieved complete response. After a median of 36 months of follow-up, six patients were alive in complete response, and two died while in complete response.

POLICY STATEMENT

Prior Authorization is recommended for medical benefit coverage of Mylotarg. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indications. Extended approvals are allowed if the patient continues to meet the Criteria and Dosing. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for the duration noted below. In cases where the approval is authorized in months, 1 month is equal to 30 days. Because of the specialized skills required for evaluation and diagnosis of patients treated with Mylotarg, as well as the monitoring required for adverse events and long-term efficacy, approval requires Mylotarg to be prescribed by or in consultation with a physician who specializes in the condition being treated.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Mylotarg is recommended in those who meet one of the following criteria:

FDA-Approved Indication

1. Acute Myeloid Leukemia. Approve for the duration noted if the patient meets ONE of the following (A or B):

A) Newly diagnosed CD33-positive disease: Approve for 1 year if the patient meets BOTH of the following (i and ii):
- **i.** Patient is ≥ 1 month of age; AND
- **ii.** Mylotarg is prescribed by or in consultation with an oncologist; OR

B) Relapsed or refractory CD33-positive disease: Approve for 1 month if the patient meets BOTH of the following (i and ii):
- **i.** Patient is ≥ 2 years of age; AND
- **ii.** Mylotarg is prescribed by or in consultation with an oncologist.

Dosing. Approve ONE of the following dosing regimens (A or B):

A) Newly diagnosed CD33-positive acute myeloid leukemia: Approve ONE of the following (i or ii):
- **i.** Adult patients ≥ 18 years of age and meets ALL of the following (a, b, and c):
  - **a)** Approve up to 6 mg/m^2 administered intravenously; AND
  - **b)** Approve no more than 3 doses of Mylotarg during the initial (induction) cycle; AND
  - **c)** Approve 1 dose of Mylotarg during each subsequent (consolidation) cycle.
- **ii.** Pediatric patients 1 month to < 18 years of age and meets ALL of the following (a, b, and c):
  - **a)** Patient meets ONE of the following [(1) or (2)]:
    - **(1)** Approve up to 3 mg/m^2 administered intravenously for patients with body surface area ≥ 0.6 m^2; OR
    - **(2)** Approve up to 0.1 mg/kg for patients with body surface area < 0.6 m^2; AND
  - **b)** Approve 1 dose of Mylotarg during the initial (induction) cycle; AND
  - **c)** Approve 1 dose during the intensification phase.

B) Relapsed or refractory CD33-positive acute myeloid leukemia: Approve up to 4.5 mg administered intravenously for no more than 3 doses.

Other Uses with Supportive Evidence

2. Acute Promyelocytic Leukemia. Approve for 6 months if the patient meets BOTH of the following (A and B):

A) Patient is ≥ 18 years of age; AND

B) Mylotarg is prescribed by or in consultation with an oncologist.

Dosing. Approve up to 9 mg/m^2 administered intravenously no more frequently than once every 28 days.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Mylotarg is not recommended in the following situations:

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Mylotarg™ intravenous infusion [prescribing information]. Philadelphia, PA: Pfizer; August 2021.
2. The NCCN Acute Myeloid Leukemia Clinical Practice Guidelines in Oncology (version 3.2024 – May 17, 2024). © 2024 National Comprehensive Cancer Network. Available at: http://www.nccn.org. Accessed on July 9, 2024.
3. The NCCN Drugs and Biologics Compendium. © 2024 National Comprehensive Cancer Network. Available at: http://www.nccn.org. Accessed on July 9, 2024. Search term: gemtuzumab.
4. Lo-Coco F, Cimino G, Breccia M, et al. Gemtuzumab Ozogamicin (Mylotarg) as a Single Agent for Molecularly Relapsed Acute Promyelocytic Leukemia. *Blood*. 2004;104:1995-1999.
5. Aribi A, Kantarjian HM, Estey EH, et al. Combination Therapy with Arsenic Trioxide, All-*trans* Retinoic Acid, and Gemtuzumab Ozogamicin in Recurrent Acute Promyelocytic Leukemia. *Cancer*. 2007;109:1355-1359.
6. Schwarz J, Markova J, Pekova S, et al. A Single Administration of Gemtuzumab Ozogamicin for Molecular Relapse of Acute Promyelocytic Leukemia. *Hematol J*. 2004;5:279-280.
7. Tsimberidou AM, Estey E, Whitman GJ, et al. Extramedullary Relapse in a Patient with Acute Promyelocytic Leukemia: Successful Treatment with Arsenic Trioxide, all-*trans* Retinoic Acid and Gemtuzumab Ozogamicin Therapies. *Leuk Res*. 2004;28:991-994.

HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	No criteria changes.	07/12/2023
Annual Revision	No criteria changes.	07/17/2024