# Medical Policy:

## Colony Stimulating Factors: Leukine® (sargramostim)

| POLICY NUMBER | LAST REVIEW | ORIGIN DATE |
|---|---|---|
| MG.MM.PH.91 | March 21, 2024 | |



The treating physician or primary care provider must submit to EmblemHealth, or ConnectiCare, as applicable (hereinafter jointly referred to as "EmblemHealth"), the clinical evidence that the member meets the criteria for the treatment or surgical procedure. Without this documentation and information, EmblemHealth will not be able to properly review the request preauthorization or post-payment review. The clinical review criteria expressed below reflects how EmblemHealth determines whether certain services or supplies are medically necessary. This clinical policy is not intended to pre-empt the judgment of the reviewing medical director or dictate to health care providers how to practice medicine. Health care providers are expected to exercise their medical judgment in rendering appropriate care. Health care providers are expected to exercise their medical judgment in rendering appropriate care.

EmblemHealth established the clinical review criteria based upon a review of currently available clinical information (including clinical outcome studies in the peer reviewed published medical literature, regulatory status of the technology, evidence-based guidelines of public health and health research agencies, evidence-based guidelines and positions of leading national health professional organizations, views of physicians practicing in relevant clinical areas, and other relevant factors). EmblemHealth expressly reserves the right to revise these conclusions as clinical information changes and welcomes further relevant information. Each benefit program defines which services are covered. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered and/or paid for by EmblemHealth, as some programs exclude coverage for services or supplies that EmblemHealth considers medically necessary.

If there is a discrepancy between this guideline and a member's benefits program, the benefits program will govern. Identification of selected brand names of devices, tests and procedures in a medical coverage policy is for reference only and is not an endorsement of any one device, test or procedure over another. In addition, coverage may be mandated by applicable legal requirements of a state, the Federal Government or the Centers for Medicare & Medicaid Services (CMS) for Medicare and Medicaid members. All coding and web site links are accurate at time of publication.

EmblemHealth may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. The MCG™ Care Guidelines are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice. EmblemHealth Services Company, LLC, has adopted this policy in providing management, administrative and other services to EmblemHealth Plan, Inc., EmblemHealth Insurance Company, EmblemHealth Services Company, LLC, and Health Insurance Plan of Greater New York (HIP) related to health benefit plans offered by these entities. ConnectiCare, an EmblemHealth company, has also adopted this policy. All of the aforementioned entities are affiliated companies under common control of EmblemHealth Inc.

## Definitions

Sargramostim is a recombinant human granulocyte-macrophage colony stimulating factor.

## Length of Authorization

Coverage will be provided for six months and may be renewed.

## Dosing Limits [Medical Benefit]

**Max Units (per dose and over time):**

15 billable units per day (acute radiation syndrome)

10 billable units per day (all other indications)

## Guideline

### I. INITIAL APPROVAL CRITERIA

Leukine is a non-preferred GM-CSF product. Preferred agents are Granix and Zarxio.

***Leukine*** *may be considered medically necessary if:*

- The patient has a contraindication or severe intolerance to Granix and Zarxio

Coverage is provided in the following conditions:

**Myeloid reconstitution after autologous or allogeneic bone marrow transplant (BMT) †**

**Peripheral Blood Progenitor Cell (PBPC) mobilization and transplant †**

**Acute Myeloid Leukemia (AML) following induction or consolidation chemotherapy †**

**Bone Marrow Transplantation (BMT) failure or Engraftment Delay †**

**Treatment of chemotherapy-induced febrile neutropenia ‡**

1. Used for the treatment of chemotherapy induced febrile neutropenia in patients who have not received prophylactic therapy with a granulocyte colony stimulating factor; **AND**
2. Patient has one or more of the following risk factors for developing infection-related complications:
    a. Sepsis Syndrome
    b. Age >65
    c. Absolute neutrophil count [ANC] <100/mcL
    d. Duration of neutropenia expected to be greater than 10 days
    e. Pneumonia or other clinically documented infections
    f. Invasive fungal infection
    g. Hospitalization at the time of fever
    h. Prior episode of febrile neutropenia

**Patients acutely exposed to myelosuppressive doses of radiation (Hematopoietic Subsyndrome of Acute Radiation Syndrome [H-ARS]) †**

**High-Risk Neuroblastoma †**

- Used in combination with GD2-binding monoclonal antibodies (i.e., naxitamab, dinutuximab, etc.) for the treatment of high-risk neuroblastoma

† **FDA-labeled indication(s); ‡ Compendia recommended indication(s)**

## II. RENEWAL CRITERIA

**1. High-Risk Neuroblastoma**

A. Use in combination with dinutuximab may **not** be renewed.

B. Used in combination with naxitamab; **AND**

i. Patient continues to meet indication-specific relevant criteria such as concomitant therapy requirements (not including prerequisite therapy), performance status, etc. identified in section I; **AND**

ii. Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include severe hypersensitivity reactions, severe effusions and capillary leak syndrome, severe supraventricular arrythmias, etc.

2. **All other indications**

A. Provider attests continuation of therapy is warranted; **AND**

B. Member has a positive clinical response.

**Dosing/Administration**

| Indication | Dose |
|---|---|
| **Acute Exposure to Myelosuppressive Doses of Radiation** | • 7 mcg/kg in adult and pediatric patients weighing greater than 40 kg<br>• 10 mcg/kg in pediatric patients weighing 15 kg to 40 kg<br>• 12 mcg/kg in pediatric patients weighing less than 15 kg<br>– *Administer Leukine as soon as possible after suspected or confirmed exposure to radiation doses greater than 2 gray (Gy).* |
| **High-Risk Neuroblastoma** | **In combinations with naxitamab**<br>250 mcg/$m^2$ subcutaneously daily for 5 doses starting 5 days prior to the day 1 of naxitamab infusion followed by sargramostim 500 mcg/$m^2$ subcutaneously daily on days 1, 2, 3, 4, and 5 repeated each cycle in combination with naxitamab.<br>*Note: Treatment cycles are repeated every 4 weeks until complete or partial response, followed by 5 additional cycles (every 4 weeks). Subsequent cycles may be repeated every 8 weeks. Discontinue (naxitamab and GM-CSF) with disease progression or unacceptable toxicity.*<br>**In combination with dinutuximab**<br>250 mcg/$m^2$ daily on days 1 through 14 of cycles 1, 3 and 5 (cycle length is 24 days) for a maximum of 5 cycles only |
| **All other indications** | 250 mcg/$m^2$ daily for up to 14 days |

## Applicable Procedure Codes

| Code | Description |
|---|---|
| J2820 | Injection, sargramostim (GM-CSF), 50 mcg: 1 billable unit = 50 mcg |

## Applicable NDCs

| Code | Description |
|---|---|
| 00024-5843-xx | Leukine 250 mcg vial |

## ICD-10 Diagnoses

| Code | Description |
|---|---|
| C92.00 | Myeloid leukemia not having achieved remission |
| C92.02 | Myeloid leukemia in relapse |
| C92.50 | Acute myelomonocytic leukemia not having achieved remission |
| C92.52 | Acute myelomonocytic leukemia in relapse |

| | |
|---|---|
| C92.60 | Acute myeloid leukemia with 11q23-abnormality not having achieved remission |
| C92.62 | Acute myeloid leukemia with 11q23-abnormality in relapse |
| C92.A0 | Acute myeloid leukemia with multilineage dysplasia not having achieved remission |
| C92.A2 | Acute myeloid leukemia with multilineage dysplasia in relapse |
| C93.00 | Acute monoblastic/monocytic leukemia not having achieved remission |
| C93.02 | Acute monoblastic/monocytic leukemia in relapse |
| C93.10 | Chronic myelomonocytic leukemia, not having achieved remission |
| C94.00 | Acute erythroid leukemia not having achieved remission |
| C94.02 | Acute erythroid leukemia in relapse |
| C94.20 | Acute megakaryoblastic leukemia not having achieved remission |
| C94.22 | Acute megakaryoblastic leukemia in relapse |
| D70.1 | Agranulocytosis secondary to cancer chemotherapy |
| D70.9 | Neutropenia, unspecified |
| T45.1X5A | Adverse effect of antineoplastic and immunosuppressive drugs initial encounter |
| T45.1X5D | Adverse effect of antineoplastic and immunosuppressive drugs subsequent encounter |
| T45.1X5S | Adverse effect of antineoplastic and immunosuppressive drugs sequela |
| T66.XXXA | Radiation sickness, unspecified, initial encounter |
| Z41.8 | Encounter for other procedures for purposes other than remedying health state |
| Z48.290 | Encounter for aftercare following bone marrow transplant |
| Z51.11 | Encounter for antineoplastic chemotherapy |
| Z51.12 | Encounter for antineoplastic immunotherapy |
| Z51.89 | Encounter for other specified aftercare |
| Z52.001 | Unspecified donor, stem cells |
| Z52.011 | Autologous donor, stem cells |
| Z52.091 | Other blood donor, stem cells |
| Z94.81 | Bone marrow transplant status |
| Z94.84 | Stem cells transplant status |

## Revision History

| Company(ies) | DATE | REVISION |
|---|---|---|
| EmblemHealth & ConnectiCare | 3/21/2024 | Annual Review: removed NDC: 00024-5844-xx |
| EmblemHealth & ConnectiCare | 9/13/2023 | Annual Review: added High-Risk Neuroblastoma indication, criteria, dosage, and renewal criteria |
| EmblemHealth & ConnectiCare | 4/07/2022 | Transferred policy to new template |
| EmblemHealth & ConnectiCare | 4/23/2021 | Renewal criteria updated:<br>Deleted:"Same as initial prior authorization policy criteria."<br>Added:"Provider attests continuation of therapy is warranted; AND Member has a positive clinical response." |
| EmblemHealth & ConnectiCare | 1/1/2021 | Extended coverage duration from 4 to 6 months |

## References


1. Leukine [package insert]. Bridgewater, NJ; Sanofi-Aventis US LLC; March 2018. Accessed December 2019
2. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) sargramostim. National Comprehensive Cancer Network, 2018. The NCCN Compendium® is a derivative work of the NCCN Guidelines®. NATIONAL COMPREHENSIVE CANCER NETWORK®, NCCN®, and NCCN GUIDELINES® are trademarks owned by the National Comprehensive Cancer Network, Inc." To view the most recent and complete version of the Compendium, go online to NCCN.org. Accessed March 2018.
3. Wisconsin Physicians Service Insurance Corporation. Local Coverage Determination (LCD): Human Granulocyte/Macrophage Colony Stimulating Factors
   (L34699).
   Centers for Medicare & Medicaid Services, Inc. Updated on 1/23/2018 with effective date 02/1/2018. Accessed March 2018.
4. Palmetto GBA. Local Coverage Determination (LCD): White Cell Colony Stimulating Factors (L37176). Centers for Medicare & Medicaid Services, Inc. Updated on 12/7/2017 with effective date 2/26/2018. Accessed March 2018.