

## RX.PA.013.MPC Granulocyte Colony-Stimulating Factors

The purpose of this policy is to define the prior authorization process for Granulocyte Colony-Stimulating Factors.

Leukine® (sargramostim) is indicated:

- For the use following induction chemotherapy in older adult patient with acute myelogenous leukemia (AML) to shorten time to neutrophil recovery and to reduce incidence of severe and life-threatening infections and infections resulting in death
- For the mobilization of hematopoietic progenitor cells into peripheral blood for collection by leukapheresis
- For acceleration of myeloid recovery in patients with non-Hodgkin's lymphoma (NHL), acute lymphoblastic leukemia (ALL) and Hodgkin's disease undergoing autologous bone marrow transplantation (BMT)
- For acceleration of myeloid recovery in patients undergoing allogeneic BMT from HLA-matched related donors
- In patients who have undergone allogeneic or autologous BMT in whom engraftment is delayed or has failed
- Increase survival in adult and pediatric patients from birth to 17 years of age acutely exposed to myelosuppressive doses of radiation (Hematopoietic Syndrome of Acute Radiation Syndrome [H-ARS])

### DEFINITIONS

CYCLOPHOSPHAMIDE 100 MG (J9070)

**CHOP** – a chemotherapy regimen consisting of the following agents: cyclophosphamide, doxorubicin, vincristine, and prednisone.

**Neutropenia** – a reduction in the blood neutrophil count. Neutrophils represent 40-70% of the total white blood cell count and serve as the primary defense against infection.

The absolute neutrophil count is calculated via the following equation:

**Absolute Neutrophil Count (ANC):** Total white blood cell count (cells/ $\mu$ L) x % (neutrophils + bands). Bands represent immature neutrophils.

The severity of neutropenia relates to the relative risk of infection:

- Mild (ANC = 1000 – 1500/ $\mu$ L)
- Moderate (ANC = 500 – 1000/ $\mu$ L)
- Severe (ANC < 500/ $\mu$ L)

### PROCEDURE

**A. Initial Authorization Criteria:**

*Must meet all of the criteria listed under the respective diagnosis:*

**1. For Leukine® (sargramostim):**

- For use in Acute Myeloid Leukemia (AML):
  - Must be age 55 or older
  - Must have a diagnosis of AML and receiving induction chemotherapy therapy
- For use in bone marrow transplant, must have ONE of the following:
  - Must require administration after autologous (not allogeneic) bone marrow transplant for non-Hodgkin’s lymphoma (NHL), acute lymphoblastic leukemia (ALL) or Hodgkin’s disease
  - Must require mobilization of progenitor cells into peripheral blood, often in conjunction with chemotherapy, for collection by leukapheresis
  - Must have undergone allogeneic bone marrow transplant from HLA
- For use in Hematopoietic Syndrome of Acute Radiation Syndrome [H-ARS]:
  - Must have been exposed to myelosuppressive doses of radiation (suspected or confirmed)

**B. Must be prescribed at a dose within the manufacturer’s dosing guidelines (based on diagnosis, weight, etc) listed in the FDA approved labeling.**

**C. Granulocyte colony-stimulating factors will be considered investigational or experimental for any other use and will not be covered.**

**D. Reauthorization Criteria:**

All prior authorization renewals are reviewed 3-month basis to determine the Medical Necessity for continuation of therapy. Authorization may be extended at 3-month intervals based upon chart documentation from the prescriber that the member’s condition has improved based upon the prescriber’s assessment while on therapy. For H-ARS: must provide documentation that the member’s CBC is being closely monitored to determine need for continued treatment.

**Limitations:**

Length of Authorization (if above criteria met)	
Initial Authorization	Up to 3 months
Reauthorization	Same as initial

If the established criteria are not met, the request is referred to a Medical Director for review, if required for the plan and level of request.

**Codes: J Code(s)**

Code	Description
J2820	Injection, sargramostim (gm-csf), 50 mcg

**REFERENCES**

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2. Neupogen [prescribing information]. Thousand Oaks, CA: Amgen, Inc. September 2007
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6. The Merck Manuals: Online Medical Library. Neutropenia. <http://www.merck.com/mmpe/sec11/ch132/ch132b.html?qt=neutropenia&alt=sh>. (accessed January 7, 2014).
7. Smith TJ, Khatcheressian J, Lyman GH et al. 2006 update of recommendations for the use of white blood cell growth factors: an evidence-based clinical practice guideline. *J Clin Oncol* 2006;24:3187-3205
8. Blackwell k, Semiglazov V, Gasconp, et al. A Comparison of Proposed Biosimilar and Originator Filgrastim for the Prevention of Neutropenia in Patients with Breast Cancer Receiving Myelosuppressive Adjuvant or Neoadjuvant Chemotherapy: Phase III, Randomized, Double-Blind Trial (The PIONEER study). *Blood*: 124 (21)
9. The NCCN Clinical Practice Guidelines in Oncology: Myeloid Growth Factors (Version 2.2014). National Comprehensive Cancer Network, Inc. Available at: <http://www.nccn.org>. Accessed on: March, 8 2015.
10. Apro MS, Bohlius J, Cameron DA, et al. 2010 update of EORTC guidelines for the use of granulocyte colony stimulating factor to reduce the incidence of chemotherapy-induced febrile neutropenia in adult patients with lymphoproliferative disorders and solid tumours. *Eur J Cancer* 2011;47(1):8-32.

**REVIEW HISTORY**

DESCRIPTION OF REVIEW / REVISION	DATE APPROVED
<i>Annual review</i>	<i>02/2023</i>
<i>Annual review</i>	<i>02/2022</i>
<i>Addition of dosing requirements and off-label restrictions</i>	<i>12/2021</i>
<i>New Policy</i>	<i>11/2020</i>