

Drug Policy

Policy:	201826 MRx	Initial Effective Date: 10/30/2014 Annual Review Date: 04/17/2025 Last Revised Date: 04/17/2025
Code(s):	HCPCS J2820	
SUBJECT:	Colony Stimulating Factors - Leukine® (Sargramostim)	

Subject to: ☐ Site of Care
☒ Medication Sourcing

Prior approval is required for some or all procedure codes listed in this Corporate Drug Policy.

Policy Statement

This policy involves the use of Leukine. Prior authorization is recommended for medical benefit coverage of Leukine. Approval is recommended for those who meet the conditions of coverage in the **Initial Approval and Renewal Criteria, Preferred Drug (when applicable), Dosing/Administration, Length of Authorization, and Site of Care (when applicable)** for the diagnosis provided. The requirement that the patient meet the Criteria and Preferred Drug for coverage of the requested medication applies to the initial authorization only. All approvals for initial therapy are provided for the initial approval duration noted below; if reauthorization is allowed, a response to therapy is required for continuation of therapy.

I. Length of Authorization

Neuroblastoma:

- When used in combination with dinutuximab and isotretinoin regimen, coverage will be provided for five months and may not be renewed.
- When used in all other regimens, coverage will be provided for six months and may be renewed.

All other indications: Coverage will be provided for four months and may be renewed.

II. Dosing Limits

A. Quantity Limit (max daily dose) [NDC Unit]:

- Leukine 250 mcg vial: 28 vials per 14 days

B. Max Units (per dose and over time) [HCPCS Unit]:

- 15 billable units per day (acute radiation syndrome)
- 140 billable units every 24 days (neuroblastoma)
- 10 billable units per day (all other indications)

This document is subject to the disclaimer found at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx and is subject to change. Always verify with the most current version at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx or https://provider.medmutual.com/TOOLS_and_RESOURCES/Care_Management/ExpressScripts.aspx.

Drug Policy

III. Initial Approval Criteria

Coverage is provided in the following conditions:

Myeloid reconstitution after autologous or allogeneic bone marrow transplant (BMT) †¹

Peripheral Blood Progenitor Cell (PBPC) mobilization and transplant †¹

Acute Myeloid Leukemia (AML) following induction or consolidation chemotherapy † Φ¹

Bone Marrow Transplantation (BMT) failure or Engraftment Delay † Φ¹

Treatment of chemotherapy-induced febrile neutropenia ‡^{2,3,5,6}

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

Patients acutely exposed to myelosuppressive doses of radiation (Hematopoietic Subsyndrome of Acute Radiation Syndrome [H-ARS]) † Φ ‡¹⁻³

Neuroblastoma ‡^{2,13-15}

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

† FDA Approved Indication(s); ‡ Compendia Recommended Indication(s); Φ Orphan Drug

IV. Renewal Criteria^{1,2,12-14}

Neuroblastoma

- Use in combination with dinutuximab and isotretinoin-based regimens may not be renewed.

Drug Policy

- Used in combination with a naxitamab-based regimen, or in combination with dinutuximab, temozolomide, and irinotecan; **AND**
 - Patient continues to meet indication-specific relevant criteria such as concomitant therapy requirements (not including prerequisite therapy), performance status, etc. identified in section III; **AND**
 - Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include severe hypersensitivity reactions, severe effusions and capillary leak syndrome, severe supraventricular arrhythmias, etc.

All Other Indications

- Refer to initial prior authorization criteria.

V. Dosage/Administration¹⁻¹⁶

Indication	Dose
Acute Exposure to Myelosuppressive Doses of Radiation	<ul style="list-style-type: none"> • 7 mcg/kg/day in adult and pediatric patients weighing > 40 kg • 10 mcg/kg/day in pediatric patients weighing 15 kg to 40 kg • 12 mcg/kg/day in pediatric patients weighing < 15 kg – Administer sargramostim as soon as possible after suspected or confirmed exposure to radiation doses greater than 2 gray (Gy). – Continue administration of sargramostim until the ANC remains greater than 1,000/mm³ for three consecutive CBCs or exceeds 10,000/mm³ after a radiation-induced nadir.
Neuroblastoma	<p><u>In combination with dinutuximab, temozolomide, and irinotecan</u> 250 mcg/m² subcutaneously daily on days 6 through 12 every 21 days</p> <p><u>In combination with dinutuximab and isotretinoin</u> 250 mcg/m² subcutaneously daily on days 1 through 14 every 28 days for a maximum of 5 cycles only</p> <p>OR 250 mcg/m² daily on days 1 through 14 of cycles 1, 3 and 5 (aldesleukin is given alternatively during cycles 2 and 4) for a maximum of 5 cycles only Note: Cycle length is 24 days in cycles 1,3,5 and 32 days in cycles 2,4</p> <p><u>In combinations with naxitamab</u></p>

Drug Policy

	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. <i>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 sargramostim) with disease progression or unacceptable toxicity.</i>
All other indications	250 mcg/m ² daily for up to 14 days

VI. Billing Code/Availability Information

HCPCS Code:

- J2820 – Injection, sargramostim (gm-csf), 50 mcg: 1 billable unit = 50 mcg

NDC:

- Leukine 250 mcg single-dose vial: 71837-5843-xx

VII. References

1. Leukine [package insert]. Lexington, MA; Partner Therapeutics, Inc.; August 2023. Accessed March 2024.
2. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) sargramostim. National Comprehensive Cancer Network, 2024. 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 2024.
3. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) Hematopoietic Growth Factors. Version 3.2023. National Comprehensive Cancer Network, 2024. 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 2024.
4. Arora M, Burns LJ, Barker JN, et al. Randomized comparison of granulocyte colony-stimulating factor versus granulocyte-macrophage colony-stimulating factor plus intensive chemotherapy for peripheral blood stem cell mobilization and autologous transplantation in multiple myeloma. Biol Blood Marrow Transplant. 2004;10(6):395-404.
5. Berghmans T, Paesmans M, Lafitte JJ, et al. Therapeutic use of granulocyte and granulocyte-macrophage colony-stimulating factors in febrile neutropenic cancer patients. A systematic review of the literature with meta-analysis. Support Care Cancer. 2002;10(3):181-188.

Drug Policy

6. Dubois RW, Pinto LA, Bernal M, et al. Benefits of GM-CSF versus placebo or G-CSF in reducing chemotherapy-induced complications: A systematic review of the literature. *Support Cancer Ther.* 2004;2(1):34-41.
7. Nemunaitis J, Rosenfeld CS, Ash R, et al. Phase III randomized, double-blind placebo-controlled trial of rhGM-CSF following allogeneic bone marrow transplantation. *Bone Marrow Transplant.* 1995;15(6):949-954.
8. Nemunaitis J, Singer JW, Buckner CD, et al. Use of recombinant human granulocyte-macrophage colony-stimulating factor in graft failure after bone marrow transplantation. *Blood.* 1990;76(1):245-253.
9. Nemunaitis J, Buckner CD, Appelbaum FR et al. Phase I/II trial of recombinant human granulocyte-macrophage colony-stimulating factor following allogeneic bone marrow transplantation. *Blood.* 1991;77:2065-71.
10. Nemunaitis J, Rabinowe SN, Singer JW et al. Recombinant granulocyte-macrophage colony-stimulating factor after autologous bone marrow transplantation for lymphoid cancer. *N Engl J Med.* 1991;324:1773-8.
11. Rabinowe SN, Neuberg D, Bierman PJ et al. Long-term follow-up of a phase III study of recombinant human granulocyte-macrophage colony-stimulating factor after autologous bone marrow transplantation for lymphoid malignancies. *Blood.* 1993;81:1903-8.
12. Rowe JN, Andersen JW, Mazza JJ et al. A randomized placebo-controlled phase III study of granulocyte-macrophage colony-stimulating factor in adult patients (> 55 to 70 years of age) with acute myelogenous leukemia: a study of the Eastern Cooperative Oncology Group (E1490). *Blood.* 1995;86:457-62.
13. Danyelza [package insert]. New York, NY; Y-mAbs Therapeutics, Inc. ; November 2020. Accessed March 2024.
14. Unituxin [package insert]. Silver Spring, MD; United Therapeutics Corp; September 2020. Accessed March 2024.
15. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) Neuroblastoma. Version 1.2024. National Comprehensive Cancer Network, 2024. 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 2024.
16. Mody R, Yu AL, Naranjo A, et al. Irinotecan, Temozolomide, and Dinutuximab With GM-CSF in Children With Refractory or Relapsed Neuroblastoma: A Report From the Children’s Oncology Group. *J Clin Oncol* 2020;38:2160-2169.
17. Palmetto GBA. Local Coverage Determination: White Cell Colony Stimulating Factors (A56748). Centers for Medicare & Medicaid Services, Inc. Updated on 08/10/2023 with effective date 10/01/2023. Accessed March 2024.

Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
C72.0	Malignant neoplasm of spinal cord
C72.1	Malignant neoplasm of cauda equina

This document is subject to the disclaimer found at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx and is subject to change. Always verify with the most current version at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx or https://provider.medmutual.com/TOOLS_and_RESOURCES/Care_Management/ExpressScripts.aspx.

Drug Policy

ICD-10	ICD-10 Description
C72.20	Malignant neoplasm of unspecified olfactory nerve
C72.21	Malignant neoplasm of right olfactory nerve
C72.22	Malignant neoplasm of left olfactory nerve
C72.30	Malignant neoplasm of unspecified optic nerve
C72.31	Malignant neoplasm of right optic nerve
C72.32	Malignant neoplasm of left optic nerve
C72.40	Malignant neoplasm of unspecified acoustic nerve
C72.41	Malignant neoplasm of right acoustic nerve
C72.42	Malignant neoplasm of left acoustic nerve
C72.50	Malignant neoplasm of unspecified cranial nerve
C72.59	Malignant neoplasm of other cranial nerves
C72.9	Malignant neoplasm of central nervous system, unspecified
C74.00	Malignant neoplasm of cortex of unspecified adrenal gland
C74.01	Malignant neoplasm of cortex of right adrenal gland
C74.02	Malignant neoplasm of cortex of left adrenal gland
C74.10	Malignant neoplasm of medulla of unspecified adrenal gland
C74.11	Malignant neoplasm of medulla of right adrenal gland
C74.12	Malignant neoplasm of medulla of left adrenal gland
C74.90	Malignant neoplasm of unspecified part of unspecified adrenal gland
C74.91	Malignant neoplasm of unspecified part of right adrenal gland
C74.92	Malignant neoplasm of unspecified part of left adrenal gland
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

This document is subject to the disclaimer found at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx and is subject to change. Always verify with the most current version at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx or https://provider.medmutual.com/TOOLS_and_RESOURCES/Care_Management/ExpressScripts.aspx.

Drug Policy

ICD-10	ICD-10 Description
C93.02	Acute monoblastic/monocytic leukemia in relapse
D61.810	Antineoplastic chemotherapy induced pancytopenia
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
T66.XXXD	Radiation sickness, unspecified, subsequent encounter
T66.XXXS	Radiation sickness, unspecified, sequela
W88.1	Exposure to radioactive isotopes
W88.8	Exposure to other ionizing radiation
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
Z76.89	Persons encountering health services in other specified circumstances
Z94.81	Bone marrow transplant status
Z94.84	Stem cells transplant status

Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

The preceding information is intended for non-Medicare coverage determinations. Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determinations (NCDs) and/or Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. Local Coverage Articles (LCAs) may also exist for claims payment purposes or to clarify benefit eligibility under Part B for drugs which may be self-administered. The following link may be used to search for NCD, LCD, or LCA documents: <https://www.cms.gov/medicare-coverage->

This document is subject to the disclaimer found at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx and is subject to change. Always verify with the most current version at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx or https://provider.medmutual.com/TOOLS_and_RESOURCES/Care_Management/ExpressScripts.aspx.

Drug Policy

[database/search.aspx](#). Additional indications, including any preceding information, may be applied at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes		
Jurisdiction	NCD/LCA/LCD Document(s)	Contractor
J, M	A56748	Palmetto GBA

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
E (1)	CA, HI, NV, AS, GU, CNMI	Noridian Healthcare Solutions, LLC
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC
5	KS, NE, IA, MO	Wisconsin Physicians Service Insurance Corp (WPS)
6	MN, WI, IL	National Government Services, Inc. (NGS)
H (4 & 7)	LA, AR, MS, TX, OK, CO, NM	Novitas Solutions, Inc.
8	MI, IN	Wisconsin Physicians Service Insurance Corp (WPS)
N (9)	FL, PR, VI	First Coast Service Options, Inc.
J (10)	TN, GA, AL	Palmetto GBA
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA
L (12)	DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA)	Novitas Solutions, Inc.
K (13 & 14)	NY, CT, MA, RI, VT, ME, NH	National Government Services, Inc. (NGS)
15	KY, OH	CGS Administrators, LLC

Documentation Requirements:

The Company reserves the right to request additional documentation as part of its coverage determination process. The Company may deny reimbursement when it has determined that the services performed were not medically necessary, investigational or experimental, not within the scope of benefits afforded to the member and/or a pattern of billing or other practice has been found to be either inappropriate or excessive. Additional documentation supporting medical necessity for the services provided must be made available upon request to the Company. Documentation requested may include patient records, test results and/or credentials of the provider ordering or performing a service. The Company also reserves the right to modify, revise, change, apply and interpret this policy at its sole discretion, and the exercise of this discretion shall be final and binding.

This document is subject to the disclaimer found at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx and is subject to change. Always verify with the most current version at https://provider.medmutual.com/tools_and_resources/Care_Management/MedPolicies/Disclaimer.aspx or https://provider.medmutual.com/TOOLS_and_RESOURCES/Care_Management/ExpressScripts.aspx.

Drug Policy

FOR MEDICAL BENEFIT COVERAGE REQUESTS:

Prior approval is required for HCPCS Codes J2820