Filgrastim (Neupogen®) **Filgrastim-aafi (Nivestym™)** **Filgrastim-sndz (Zarxio®)** **Filgrastim-ayow (Releuko®)**	**Place of Service** **Hospital Administration** **Office Administration** **Specialty Pharmacy** **Home Infusion Administration** **Outpatient Facility Administration** **Infusion Center Administration** **Self-Administration -** *May be covered under the pharmacy benefit* **HCPCS** Neupogen: **J1442** per 1 mcg Zarxio: **Q5101** per 1 mcg Nivestym: **Q5110** per 1 mcg Releuko: **Q5125** per 1 mcg

Conditions listed in policy *(see criteria for details)*

- Acute exposure to myelosuppressive radiation
- Bone marrow transplantation
- Congenital neutropenia
- Cyclic neutropenia
- Drug-induced neutropenia
- Febrile neutropenia
- HIV patients on myelosuppressive therapy
- Idiopathic neutropenia
- Myelodysplastic syndromes
- Peripheral blood stem cell mobilization
- Prevention or treatment in cancer patients receiving myelosuppressive anticancer agents

AHFS therapeutic class: Hematopoietic agents

Mechanism of action: Granulocyte colony-stimulating factor (G-CSF)

(1) Special Instructions and Pertinent Information

To submit under the Medical Benefit, please submit clinical information for prior authorization review via fax.

Nivestym, Releuko, and Zarxio are the BSC preferred granulocyte colony-stimulating factor (G-CSF). Request for Neupogen for members newly initiating filgrastim therapy will require treatment failure or intolerance to all the preferred drugs or contraindication to all the preferred drugs for certain indications.

(2) Prior Authorization/Medical Review is required for the following condition(s)

All requests for filgrastim must be sent for clinical review and receive authorization prior to drug administration or claim payment.

Acute exposure to myelosuppressive doses of radiation

Covered Doses
Up to 10 mcg/kg SC per day

ICD-10: (X = any number)
T66.X

Bone marrow transplantation

1. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Up to 10 mcg/kg SC per day

Coverage Period
6 months

ICD-10:
Z94.81

CPT:
38240, 38241

Congenital neutropenia, Cyclic neutropenia or Idiopathic neutropenia

1. Recurring or persistent neutropenia in association with either of the following:
    a. History of recurring infections (e.g., multiple episodes of infections requiring antibiotics), or
    b. 1 hospitalization for an infection within the past year

AND

2. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Initial: Up to 10 mcg/kg SC per day
Maintenance: Titrated dosing to maintain response (e.g. ANC between 800/mm^3 – 1400/mm^3)

Coverage Period
1 year

ICD-10:
D70.0, D70.4, D70.9

Drug-induced neutropenia

1. Neutropenia is caused by an identified drug, **AND**
2. Initial absolute neutrophil count ANC ≤800/mm^3 or ANC ≤ 1000/mm^3 with expected neutropenia of > 5 days, **AND**
3. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Initial: Up to 10 mcg/kg SC per day

Maintenance: Titrated dosing to maintain response (e.g. ANC between 800/mm^3 – 1400/mm^3)

Coverage Period
Up to the length of therapy that the drug causing neutropenia is prescribed or up to one year (whichever is less).

ICD-10:
D70.2

Febrile neutropenia

1. Initial absolute neutrophil count ANC ≤800/mm^3 or ANC ≤ 1000/mm^3 with expected neutropenia of > 5 days, **AND**
2. Patient has not received pegfilgrastim (e.g. Neulasta, Fulphila, Udenyca) for neutropenia prophylaxis in the past 14 days, **AND**
3. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Initial: Up to 10 mcg/kg SC per day

Maintenance: Titrated dosing to maintain response (e.g., ANC between 800/mm^3 – 1400/mm^3)

Coverage Period
Up to 2 months

ICD-10:
D70.9 with R50.81

HIV patients on myelosuppressive therapy

1. Initial absolute neutrophil count ANC ≤800/mm^3 or ANC ≤ 1000/mm^3 with expected neutropenia of > 5 days, **AND**
2. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Initial: Up to 10 mcg/kg SC per day
Maintenance: Titrated dosing to maintain response (e.g. ANC between 800/mm^3 – 1400/mm^3)

Coverage Period
Up to the length of therapy that the drug causing neutropenia is prescribed or up to one year (whichever is less).

ICD-10:
B20 plus D70.2

Myelodysplastic syndromes

1. Either of the following:
   a. Initial absolute neutrophil count ANC ≤800/mm^3 or ANC ≤ 1000/mm^3 with expected neutropenia of > 5 days, **OR**
   b. Being used in combination with an erythropoiesis-stimulating agent [ESA] (e.g. Procrit or Aranesp) to improve symptoms of anemia AND both of the following:
      i. Hgb < 10 gm/dl, and
      ii. EPO level ≤ 500 mU/mL

   AND
2. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Up to 10 mcg/kg SC per day

Coverage Period
Indefinite

ICD-10:
D46.0, D46.1, D46.2-D46.22, D46.4, D46.9, D46.A-D46.C, D46.Z

Peripheral blood stem cell mobilization

1. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Up to 12 mcg/kg SC per day

Coverage Period
Up to 3 months. Reauthorization requires continued response to therapy

ICD-10:
Z48.290, Z52.001, Z52.011, Z52.091, Z94.81, Z94.84

CPT:
38205, 38206

Prevention or treatment in cancer patients receiving myelosuppressive anticancer agents

1. Filgrastim is not being used concurrently with long-acting or short-acting granulocyte colony stimulating factors (e.g. filgrastim or pegfilgrastim drugs), **AND**
2. For request for Neupogen: Intolerable side effect with the preferred filgrastim products, Nivestym, Releuko, and Zarxio, that is not expected with Neupogen, or contraindication to all preferred drugs.

Covered Doses
Up to 10 mcg/kg SC per day

Coverage Period
Up to the length of the chemotherapy treatment that or up to one year (whichever is less).

ICD-10:
C00.0-C91.91, C92.0x, C92.2x-C92.6x, C92.Ax, C93.00, C93.02, C94.00, C94.02, C94.20, C94.22, D00.00-D49.9, D70.1
**Does NOT include C92.10, C92.11, C92.12*

(3) The following condition(s) DO NOT require Prior Authorization/Preservice
All requests for filgrastim must be sent for clinical review and receive authorization prior to drug administration or claim payment.

(4) This Medication is NOT medically necessary for the following condition(s):
Blue Shield's research indicates there is inadequate clinical evidence to support off-label use of this drug for the following conditions (Health and Safety Code 1367.21):

- Auto Immune Disorders
- Burn Patients
- Chronic Infections
- ANC > 1000/mm^3
- Combination use of granulocyte-colony stimulating factor (G-CSF) drugs (e.g., Granix, Leukine, Nivestym, Zarxio, Neulasta, Fulphila, Udenyca) or using more than one G-CSF drug during a single chemotherapy cycle for neutropenia prophylaxis due to myelosuppressive chemotherapy

Coverage for a Non-FDA approved indication, requires that criteria outlined in Health and Safety Code § 1367.21, including objective evidence of efficacy and safety are met for the proposed indication.

Please refer to the Provider Manual and User Guide for more information.

(5) Additional Information

How Supplied:

Neupogen:
300 mcg/ml (single-dose vial)
480 mcg/1.6 ml (single-dose vial)
300 mcg/0.5 ml (single-dose prefilled syringe)
480 mcg/0.8 ml (single-dose prefilled syringe)

Nivestym:
300 mcg/ml (single-dose vial)
480 mcg/1.6 ml (single-dose vial)
300 mcg/0.5 ml (single-dose prefilled syringe)
480 mcg/0.8 ml (single-dose prefilled syringe)
For Nivestym, administration of doses less than 180 mcg (0.3ml) using the prefilled syringe is not recommended. A dose less than 0.3 ml cannot be accurately measured using the Nivestym prefilled syringe.

Zarxio:
300 mcg/0.5 ml (single-dose prefilled syringe)
480 mcg/0.8 ml (single-dose prefilled syringe)
Administration of doses less than 180 mcg (0.3 ml) is not recommended. A dose less than 0.3 ml cannot be accurately measured using the Zarxio prefilled syringe.

Releuko:
300 mcg/ml (single-dose vial)
480 mcg/1.6 ml (single-dose vial)
300 mcg/0.5 ml (single-dose prefilled syringe)
480 mcg/0.8 ml (single-dose prefilled syringe)

(6) References

- AHFS®. Available by subscription at http://www.lexi.com
- DrugDex®. Available by subscription at http://www.micromedexsolutions.com/home/dispatch
- National Comprehensive Cancer Network. Hematopoietic Growth Factors (Version 2.2023). Available at: www.nccn.org.
- National Comprehensive Cancer Network. Myelodysplastic Syndromes (Version 1.2023). Available at: www.nccn.org.
- Neupogen® (filgrastim) [Prescribing Information]. Thousand Oaks, CA: Amgen Inc.; 4/2023.
- Nivestym™ (filgrastim-aafi) [Prescribing Information]. New York, NY: Pfizer, Inc.; 3/2023.
- Releuko® (filgrastim-ayow) [Prescribing Information]. Bridgewater, NJ: Amneal Biosciences, LLC.; 2/2022.
- Zarxio® (filgrastim-sndz) [Prescribing Information]. Princeton, NJ: Sandoz Inc; 9/2022.

(7) Policy Update

Date of last review: 3Q2023
Date of next review: 3Q2024
Changes from previous policy version:

- No clinical change to policy following routine annual review.

BSC Drug Coverage Criteria to Determine Medical Necessity
Reviewed by P&T Committee