

## FILGRASTIM AGENTS

### Applies To:

filgrastim (NEUPOGEN)  
 filgrastim-aafi (NIVESTIM)  
 filgrastim-ayow (RELEUKO)  
 filgrastim-sndz (ZARXIO)

Zarxio and Nivestym are the BSC preferred granulocyte colony-stimulating factor (G-CSF) drugs. For many indications, treatment failure, intolerance, or contraindication to Zarxio (filgrastim-sndz) is required for members newly initiating G-CSF therapy.

### Diagnoses Considered for Coverage:

- Acute exposure to myelosuppressive radiation
- Congenital agranulocytosis
- Cyclic neutropenia
- Febrile neutropenia
- Idiopathic neutropenia
- Peripheral blood stem cell mobilization
- Prevention or treatment in cancer patients receiving myelosuppressive anticancer drugs
- Bone marrow transplantation
- HIV patients on myelosuppressive therapy – *support in DrugDex*
- Myelodysplastic syndromes – *off-label support in compendia*
- Drug-induced neutropenia – *off-label support in DrugDex*

### Coverage Criteria:

#### 1. For prevention or reduction of neutropenia in patients receiving myelosuppressive chemotherapy:

- Patient is receiving myelosuppressive chemotherapy, **and**
- Not being used in concurrently with peg-filgrastim (e.g. Neulasta, Fulphila, Udenyca, Ziextenzo, Nyvepria) for prevention of neutropenia, **and**
- **For Neupogen and Releuko request:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent, **and**
- Dose does not exceed 10 mcg/kg per day for up to 14 days per chemo cycle

**Coverage Duration:** duration of chemotherapy treatment

#### 2. For diagnosis of prevention or reduction of acute radiation-induced

**neutropenia:**

- Patient is currently receiving radiation therapy, **and**
- Not being used as part of a radiation regimen in combination with peg-filgrastim (e.g. Neulasta, Fulphila, Udenyca, Ziextenzo, Nyvepria) for prevention of neutropenia, **and**
- Dose does not exceed FDA label maximum, and
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent.

**Coverage Duration:** duration of radiation therapy

**3. For diagnosis of peripheral blood stem cell mobilization:**

- Dose does not exceed FDA label maximum, and
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent.

**Coverage Duration:** up to 3 months

**4. For diagnosis of congenital neutropenia or agranulocytosis, cyclic neutropenia, or idiopathic neutropenia:**

- Dose does not exceed FDA label maximum, and
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent, and
- One of the following:
  - Patient has had multiple episodes of infections requiring antibiotics **or**
  - Patient has been hospitalized for an infection within the past year.

**Coverage Duration:** 1 year

**5. For diagnosis of febrile neutropenia:**

- Absolute neutrophil count (ANC)  $\leq$  800 cells/mcl or absolute neutrophil count (ANC)  $\leq$  1000 cells/mcl and is expected to last at least 5 days, **and**
- Patient did not use peg-filgrastim (e.g. Neulasta, Fulphila, Udenyca, Ziextenzo, Nyvepria) within the last 14 days for chemotherapy-induced neutropenia prophylaxis, **and**
- Dose does not exceed FDA label maximum, and
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and

Nivestym not expected with requested GCSF agent.

**Coverage Duration:** 2 months

**6. For diagnosis of drug-induced neutropenia:**

- Neutropenia is caused by an identified drug, **and**
- Absolute neutrophil count (ANC)  $\leq 800$  cells/mcl or absolute neutrophil count (ANC)  $\leq 1000$  cells/mcl and is expected to last at least 5 days, **and**
- Dose does not exceed FDA label maximum, and
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent.

**Coverage Duration:** Up to length of therapy with drug causing neutropenia or up to one year (whichever is less)

**7. For diagnosis of drug-induced neutropenia in HIV patients receiving myelosuppressive drugs:**

- Absolute neutrophil count (ANC)  $\leq 800$  cells/mcl or absolute neutrophil count (ANC)  $\leq 1000$  cells/mcl and is expected to last at least 5 days, **and**
- Dose does not exceed FDA label maximum, and
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent.

**Coverage Duration:** Up to length of therapy with drug causing neutropenia or up to one year (whichever is less)

**8. For bone marrow transplantation:**

- Dose does not exceed FDA label maximum, **and**
- **For Neupogen and Releuko:** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent.

**Coverage Duration:** Day 5 following transplant until ANC recovery

**9. For diagnosis of myelodysplastic syndrome (MDS), approve if:**

- Either one of the following:
  - Initial ANC  $\leq 800/\text{mm}^3$ , or

- $ANC \leq 1000/mm^3$  with expected neutropenia of > 5 days, **or**
- Being used in combination with an erythropoiesis-stimulating agent (e.g. Procrit or Aranesp) to improve symptoms of anemia **AND**
  - Hgb less than 10 gm/dl, **and**
  - EPO level less than or equal to 500 mU/mL

**AND**

- Dose does not exceed FDA label maximum, and
- ***For Neupogen and Releuko:*** Intolerance or contraindication to Zarxio and Nivestym not expected with requested GCSF agent.

**Coverage Duration:** one year

**Coverage Duration:** see specific criteria

**References:**

1. National Comprehensive Cancer Network. Hematopoietic Growth Factors (Volume 4.2021). Available at: [www.nccn.org](http://www.nccn.org).
2. National Comprehensive Cancer Network. Myelodysplastic Syndromes (Volume 3.2021). Available at: [www.nccn.org](http://www.nccn.org).
3. Neupogen® (filgrastim) [Prescribing Information]. Thousand Oaks, CA: Amgen Inc.; 2/2021.
4. Nivestym™ (filgrastim-aafi) [Prescribing Information]. New York, NY: Pfizer, Inc.; 4/2021.
5. Releuko® (filgrastim-ayow) [Prescribing Information]. Bridgewater, NJ: Pfizer, Inc.; 2/2022.

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