FIRST COAST SERVICE OPTIONS
MAC - PART A/B
LOCAL COVERAGE DETERMINATION

LCD Database ID Number
L34002

Contractor Name
First Coast Service Options, Inc.

Contractor Number
09101 - Florida
09201 – Puerto Rico/Virgin Islands
09102 – Florida
09202 – Puerto Rico
09302 – Virgin Islands

Contractor Type
MAC – Part A and B

LCD Title
G-CSF (Neupogen®, Granix™, Zarxio™)

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CMS National Coverage Policy
Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the LCD Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, italicized text represents quotation from one or more of the following CMS sources:

CMS Manual System, Pub. 100-02, Medicare Benefit Policy Manual, Chapter 6, Section 20.4; Chapter 11, Section 30.4

CMS Manual System, Pub. 100-02, Medicare Benefit Policy Manual, Chapter 15, Section 50-50.1; 50.4.5
G-CSF (Neupogen® (filgrastim), Granix™) A/B

Primary Geographic Jurisdiction

Florida
Puerto Rico/Virgin Islands

Oversight Region

Region I

Original Determination Effective Date

10/01/2015

Original Determination Ending Date

7/4/2016

Revision Effective Date

07/05/2016

Revision Ending Date

NA

Indications and Limitations of Coverage and/or Medical Necessity

G-CSF is classified as a recombinant hematopoietic stimulant. This is not a cancer chemotherapy agent. It is a class II hematopoietic growth factor which acts on progenitor cells capable of forming a single differentiated cell type, the neutrophilic granulocyte, and is thus lineage-specific. Because Neupogen® (filgrastim) acts only on progenitor cells that are already committed to one pathway, it increases only the neutrophil (e.g., granulocyte) count.

Zarxio™ (filgrastim-sndz) is biosimilar to Neupogen (filgrastim), which was originally licensed in 1991. Zarxio is approved for the same indications as Neupogen.

Neupogen® (Filgrastim) and Zarxio™ (filgrastim-sndz)

Neupogen® (filgrastim) and Zarxio™ (filgrastim-sndz) will be considered medically reasonable and necessary for the following FDA approved indications when it is not self/caregiver administered:

Cancer patients:

- Bone marrow transplant (BMT) - To reduce the severity of neutropenia in patients with non-myeloid malignancies undergoing myeloablative chemotherapy followed by autologous BMT.
- Peripheral Blood Progenitor Cell (PBPC) Collection - For use in the mobilization of peripheral stem cells when the bone marrow transplant procedure itself is a covered benefit.
- Progenitor-cell transplantation - As an adjunct to allogeneic and autologous progenitor-cell transplantation, both for mobilization of PBPC and as a means to speed hematopoietic reconstitution following BMT or PBPC transplantation.
- Neutrophil engraftment failure - To assist in the recovery of patients who experience delayed or inadequate neutrophil engraftment following progenitor-cell transplantation.
- Myelosuppressive chemotherapy - To decrease the incidence of infection, as manifested by febrile neutropenia, in patients with non-myeloid malignancies receiving myelosuppressive anti-cancer drugs associated with a significant incidence of severe febrile neutropenia.
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- Acute myelogenous leukemia (AML) - To reduce the time to neutrophil recovery and the duration of fever, following induction or consolidation chemotherapy treatment of adults with AML.

**Severe chronic neutropenia (SCN) patients:**

- Congenital, cyclic, or idiopathic neutropenia - To reduce the incidence and duration of sequelae of neutropenia (e.g., fever, infections, oropharyngeal ulcers) in symptomatic patients with SCN.

Neupogen® (filgrastim) and Zarxio™ (filgrastim-sndz) will be considered medically reasonable and necessary for the following off-label indications when it is not self/caregiver administered:

- AIDS leukopenia in children.
- Amelioration of leukopenia in AIDS patients on AZT.
- Amelioration of leukopenia in AIDS patients with chorioretinitis on Ganciclovir.
- Intermittent administration of G-CSF for a subset of patients with myelodysplastic syndromes (MDS) who have severe neutropenia and recurrent infections.

**Limitations**

- A physician is not to bill for a supply of G-CSF given to the patient for self administration at home.
- The following unlabeled uses of G-CSF have not been shown to be safe and effective and are noncovered: aplastic anemia, hairy cell leukemia, myeloid malignancies (other than AML), drug-induced and congenital agranulocytosis, and alloimmune neonatal neutropenia.
- Therapeutic initiation of G-CSF does not add significantly to the antibiotic treatment outcome of established febrile neutropenia. Exceptions to this rule must be documented.
- There are inadequate data to support the use of G-CSF for patients with afebrile neutropenia.
- In general, for previously untreated patients receiving a chemotherapy regimen, primary administration of G-CSF is not considered medically necessary.
- G-CSF should not be given within 24 hours before or after a dose of a chemotherapeutic agent, as rapidly dividing myeloid cells are potentially sensitive to these agents.
- There is no evidence of benefit from the use of G-CSF to increase chemotherapy dose-intensity.
- G-CSF should not be used concurrently with radiation therapy.

**Dosage and Frequency**

**Neupogen® (filgrastim) and Zarxio™ (filgrastim-sndz):**

The package insert instructions for dosage and duration of treatment should not be exceeded.

The following is the recommended dosage and frequency when administering this drug:

**BMT** - Recommended dose following BMT is 10 mcg/kg/day given as an IV infusion of 4 or 24 hours or SC. The first dose should be administered at least 24 hours after chemotherapy and at least 24 hours after bone marrow infusion. The dose should be based on the neutrophil response. When the absolute neutrophil count (ANC) is >1000/mm³ for 3 consecutive days, reduce the G-CSF dosage to 5 mcg/kg/day. If the ANC remains >1000/mm³ for 3 more consecutive days, discontinue use.

**PBPC** - Recommended dose is 10 mcg/kg/day SC. G-CSF should be given for at least 4 days before the first leukapheresis procedure and continued until the last leukapheresis.

**Myelosuppressive chemotherapy** - Recommended starting dose is 5 mcg/kg/day SC or short IV infusion (15-30 minutes), or by continuous infusion. Doses may be increased in increments of 5 mcg/kg for each chemotherapy cycle, according to duration and severity of the ANC nadir. Administer no earlier than 24 hours after cytotoxic chemotherapy and not in the 24 hours before administration of chemotherapy. The drug should be discontinued when the absolute neutrophil count (ANC) reaches 10,000/mm³ and/or the patient becomes afebrile, or the patient has received the drug for a maximum of 14 days per treatment regimen.
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AML - Recommended starting dose is 5 mcg/kg/day SC until: ANC 1,000 cells/mm³ for 3 days or ANC >10,000 cells/mm³ for 1 day or for a maximum of 35 days.

SCN - Starting dose for congenital neutropenia is 6 mcg/kg twice daily SC every day. Idiopathic or cyclic neutropenia starting dose is 5 mcg/kg as a single injection SC every day. Chronic daily administration is required to maintain clinical benefit. Individually adjust the dose based on the patient’s clinical course, as well as the ANC. Reduce the dose if the ANC is persistently >10,000/mm³.

Granix™:

Granix™ (tbo-filgrastim) will be considered medically reasonable and necessary for the following FDA approved indication.

- Tbo-filgrastim is a leukocyte growth factor indicated for the reduction in the duration of severe neutropenia in patients with non-myeloid malignancies receiving myelosuppressive anti-cancer drugs associated with a clinically significant incidence of febrile neutropenia.

Dosage and Frequency

Subcutaneous dosage: Granix™ should be administered by a healthcare professional.

Adults: 5 mcg/kg/day SC until the expected neutrophil nadir is passed and the neutrophil count has recovered to the normal range. Administer the first dose no earlier than 24 hours after myelosuppressive chemotherapy. Do not administer tbo-filgrastim within 24 hours before chemotherapy. Monitor complete blood count before chemotherapy and twice weekly until recovery. The duration of severe neutropenia was less with tbo-filgrastim (1.1 days) as compared with placebo (3.8 days), p < 0.0001.

Type of Bill Code

Hospital – 13x
Critical Access Hospital – 85x

Revenue Codes

636 Drugs Requiring Detailed Coding

CPT/HCPCS Codes

J1442 Injection, filgrastim (g-csf), excludes biosimilars, 1 microgram
J1447 Injection, tbo-filgrastim, 1 microgram
Q5101* Injection, filgrastim (G-CSF), biosimilar, 1 microgram

* CPT code Q5101 must be submitted with Modifier ZA to identify that the product manufacturer is Novartis/Sandoz.

ICD-10 Codes that Support Medical Necessity

D46.0-D46.21 Myelodysplastic syndromes
D46.22 Refractory anemia with excess of blasts 2
D46.4 Refractory anemia, unspecified
D46.9 Myelodysplastic syndrome, unspecified
D46.A-D46.B Myelodysplastic syndromes
D46.C Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality
D46.Z Other myelodysplastic syndromes
D47.Z1 Post-transplant lymphoproliferative disorder (PTLD)
D70.0-D70.9 Neutropenia
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T45.1X5A- Adverse effect of antineoplastic and immunosuppressive drugs
T45.1X5S
T50.905A- Adverse effect of unspecified drugs, medicaments and biological substances
T50.905S
T50.995A- Adverse effect of other drugs, medicaments and biological substances
T50.995S
Z41.8 Encounter for other procedures for purposes other than remedying health state
Z48.288 Encounter for aftercare following multiple organ transplant
*Z48.290 Encounter for aftercare following bone marrow transplant
Z51.11 Encounter for antineoplastic chemotherapy
Z51.89 Encounter for other specified aftercare
Z52.89 Donor of other specified organs or tissues
*Z79.899 Other long term (current) drug therapy
*Z94.81 Bone marrow transplant status
*Z94.84 Stem cells transplant status
Z94.9 Transplanted organ and tissue status, unspecified

*Diagnosis code Z79.899 should not be billed as the primary diagnosis. For Z48.290, Z94.81 or Z94.84 the underlying condition should be billed as the primary diagnosis code.

Diagnoses that Support Medical Necessity

N/A

ICD-10 Codes that DO NOT Support Medical Necessity

N/A

Diagnoses that DO NOT Support Medical Necessity

N/A

Associated Information

Documentation Requirements

Medical record documentation maintained by the physician must clearly indicate:

- The patient’s current absolute neutrophil count (ANC);
- The patient’s weight in kilograms;
- The administration and dosage of the G-CSF;
- The actual indication for which the drug was given and accompanying symptomology (e.g., fever); and
- The patient’s response to the treatment.

This information is usually found in the history and physical or the office/progress notes.

Utilization Guidelines

N/A

Sources of Information and Basis for Decision

FCSO reference LCD number(s) – L28878, L29180, L29431
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Start Date of Comment Period

N/A

End Date of Comment Period

N/A

Start Date of Notice Period

04/01/2014

Revision History

Revision History Number: R2

Revision Number: 2
Publication: June 2016 Connection
LCR A/B2016-073

Explanation of Revision: Based on CR 9658 (July 2016 Update of the Hospital Outpatient Prospective Payment System [OPPS]) and CR 9668 (July 2016 Ambulatory Surgical Center [ASC] Payment System), the “CPT /HCPCS section of the LCD was revised to add language related to Modifier “ZA” with HCPCS code Q5101. The effective date of this revision is for claims processed on or after 07/05/16, for dates of service on or after 01/01/16.

Revision History Number: R1

Revision Number: 1
Publication: December 2015 Connection
LCR A/B2016-007
Explanation of Revision: Annual 2016 HCPCS Update. Descriptor revised for HCPCS code J1442. HCPCS code J1446 was deleted and replaced with HCPCS code J1447. The effective date of this revision is based on date of service.

Revision Number: Original
Publication: April 2014 Connection

This LCD replaces all previous LCD versions (refer to “Sources of Information and Basis for Decision” section of the LCD) and publications on this subject to comply with ICD-10-CM based on Change Request 8112. The effective date of this LCD is based on date of service.

Related Documents

N/A

LCD Attachments

N/A

Document formatted: 06/09/2016 (TG/et)