

Reference number(s)
1931-A

SPECIALTY GUIDELINE MANAGEMENT

NEULASTA (pegfilgrastim)
FULPHILA (pegfilgrastim-jmdp)
NYVEPRIA (pegfilgrastim-apgf)
UDENYCA (pegfilgrastim-cbqv)
ZIEXTENZO (pegfilgrastim-bmez)

POLICY

I. INDICATIONS

The indications below including FDA-approved indications and compendial uses are considered a covered benefit provided that all the approval criteria are met and the member has no exclusions to the prescribed therapy.

A. FDA-Approved Indication

Neulasta

1. Patients with Cancer Receiving Myelosuppressive Chemotherapy
Neulasta is indicated 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 clinically significant incidence of febrile neutropenia.
2. Hematopoietic Syndrome of Acute Radiation Syndrome
Neulasta is indicated to increase survival in patients acutely exposed to myelosuppressive doses of radiation (Hematopoietic Syndrome of Acute Radiation Syndrome).

Fulphila

Patients with Cancer Receiving Myelosuppressive Chemotherapy
Fulphila is indicated 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 clinically significant incidence of febrile neutropenia

Udenyca

Patients with Cancer Receiving Myelosuppressive Chemotherapy
Udenyca is indicated 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 clinically significant incidence of febrile neutropenia.

Ziextenzo

Patients with Cancer Receiving Myelosuppressive Chemotherapy
Ziextenzo is indicated 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 clinically significant incidence of febrile neutropenia.

Limitations of Use: Ziextenzo is not indicated for the mobilization of peripheral blood progenitor cells for hematopoietic stem cell transplantation.

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Nyvepria

Patients with Cancer Receiving Myelosuppressive Chemotherapy

Nyvepria is a leukocyte growth factor indicated 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 clinically significant incidence of febrile neutropenia.

Limitations of Use: Nyvepria is not indicated for the mobilization of peripheral blood progenitor cells for hematopoietic stem cell transplantation.

B. Compendial Use

1. Stem cell transplantation-related indications
2. Prophylaxis for chemotherapy-induced febrile neutropenia in patients with solid tumors
3. Hematopoietic Syndrome of Acute Radiation Syndrome
4. Hairy cell leukemia
5. Chronic Myeloid Leukemia (CML), treatment of persistent neutropenia due to tyrosine kinases inhibitor therapy

All other indications are considered experimental/investigational and not medically necessary.

II. REQUIRED DOCUMENTATION

Primary Prophylaxis of Febrile Neutropenia

Documentation must be provided of the member's diagnosis and chemotherapeutic regimen.

III. CRITERIA FOR INITIAL APPROVAL

A. Prevention of neutropenia in cancer patients receiving myelosuppressive chemotherapy

Authorization of 6 months may be granted for prevention of febrile neutropenia when all of the following criteria are met (1, 2, 3, and 4):

1. The requested medication will not be used in combination with other colony stimulating factors within any chemotherapy cycle.
2. The member will not be receiving concurrent chemotherapy and radiation therapy.
3. The requested medication will not be administered with weekly chemotherapy regimens.
4. One of the following criteria is met (i or ii):
 - i. The requested medication will be used for primary prophylaxis in members with a solid tumor or non-myeloid malignancies who have received, are currently receiving, or will be receiving myelosuppressive anti-cancer therapy that is expected to result in 20% or higher incidence of febrile neutropenia (FN) (*See Appendix A*) OR 10 – 19% risk of FN (*See Appendix B*).
 - ii. The requested medication will be used for secondary prophylaxis in members with solid tumors or non-myeloid malignancies who experienced a febrile neutropenic complication or a dose-limiting neutropenic event (a nadir or day of treatment count impacting the planned dose of chemotherapy) from a prior cycle of similar chemotherapy, with the same dose and scheduled planned for the current cycle (for which primary prophylaxis was not received).

B. Other indications

Authorization of 6 months may be granted for members with any of the following indications:

1. Stem cell transplantation-related indications
2. Hematopoietic Syndrome of Acute Radiation Syndrome
Treatment for radiation-induced myelosuppression following a radiological/nuclear incident
3. Hairy cell leukemia

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- Members with hairy cell leukemia with neutropenic fever following chemotherapy
- 4. Chronic Myeloid Leukemia
 - Members with chronic myeloid Leukemia (CML) for treatment of persistent neutropenia due to tyrosine kinase inhibitor therapy

IV. CONTINUATION OF THERAPY

All members (including new members) requesting authorization for continuation of therapy must meet all initial authorization criteria.

V. APPENDIX

A. APPENDIX A: Selected Chemotherapy Regimens with an Incidence of Febrile Neutropenia of 20% or Higher*

1. Acute Lymphoblastic Leukemia:
 - Select ALL regimens as directed by treatment protocol (see NCCN guidelines ALL)
2. Bladder Cancer:
 - i. Dose dense MVAC (methotrexate, vinblastine, doxorubicin, cisplatin)
 - ii. CBDCa/Pac (carboplatin, paclitaxel)
3. Bone Cancer:
 - i. VAI (vincristine, doxorubicin or dactinomycin, ifosfamide)
 - ii. VDC-IE (vincristine, doxorubicin or dactinomycin, and cyclophosphamide alternating with ifosfamide and etoposide)
 - iii. Cisplatin/doxorubicin
 - iv. VDC (cyclophosphamide, vincristine, doxorubicin or dactinomycin)
 - v. VIDE (vincristine, ifosfamide, doxorubicin or dactinomycin, etoposide)
4. Breast Cancer:
 - i. Docetaxel + trastuzumab
 - ii. Dose-dense AC (doxorubicin, cyclophosphamide) + paclitaxel (or dose dense paclitaxel)
 - iii. TAC (docetaxel, doxorubicin, cyclophosphamide)
 - iv. AT (doxorubicin, docetaxel)
 - v. Doc (docetaxel)
 - vi. TC (docetaxel, cyclophosphamide)
 - vii. TCH (docetaxel, carboplatin, trastuzumab)
5. Colorectal Cancer:
 - FOLFOXIRI (fluorouracil, leucovorin, oxaliplatin, irinotecan)
6. Esophageal and Gastric Cancers:
 - Docetaxel/cisplatin/fluorouracil
7. Head and Neck Squamous Cell Carcinoma:
 - TPF (docetaxel, cisplatin, 5-fluorouracil)
8. Hodgkin Lymphoma:
 - i. Brentuximab vedotin + AVD (doxorubicin, vinblastine, dacarbazine)
 - ii. Escalated BEACOPP (bleomycin, etoposide, doxorubicin, cyclophosphamide, vincristine, procarbazine, prednisone)
9. Kidney Cancer:
 - Doxorubicin/gemcitabine
10. Non-Hodgkin's Lymphoma:
 - i. Dose-adjusted EPOCH (etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin)
 - ii. ICE (ifosfamide, carboplatin, etoposide)
 - iii. Dose-dense CHOP-14 (cyclophosphamide, doxorubicin, vincristine, prednisone) ± rituximab

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- iv. MINE (mesna, ifosfamide, mitoxantrone, etoposide)
- v. DHAP (dexamethasone, cisplatin, cytarabine)
- vi. ESHAP (etoposide, methylprednisolone, cisplatin, cytarabine (Ara-C))
- vii. HyperCVAD ± rituximab (cyclophosphamide, vincristine, doxorubicin, dexamethasone ± rituximab)
- viii. VAPEC-B (vincristine, doxorubicin, prednisolone, etoposide, cyclophosphamide, bleomycin)
- 11. Melanoma:
Dacarbazine-based combination with IL-2, interferon alpha (dacarbazine, cisplatin, vinblastine, IL-2, interferon alfa)
- 12. Multiple myeloma:
 - i. VTD-PACE (dexamethasone/thalidomide/cisplatin/doxorubicin/cyclophosphamide/etoposide + bortezomib)
 - ii. DT-PACE (dexamethasone/thalidomide/cisplatin/doxorubicin/cyclophosphamide/etoposide)
- 13. Ovarian Cancer:
 - i. Topotecan
 - ii. Docetaxel
- 14. Pancreatic Cancer:
FOLFIRINOX (fluorouracil, leucovorin, irinotecan, oxaliplatin)
- 15. Soft Tissue Sarcoma:
 - i. MAID (mesna, doxorubicin, ifosfamide, dacarbazine)
 - ii. Doxorubicin
 - iii. Ifosfamide/doxorubicin
- 16. Small Cell Lung Cancer:
 - i. Top (topotecan)
 - ii. CAV (cyclophosphamide, doxorubicin, vincristine)
- 17. Testicular cancer:
 - i. VeIP (vinblastine, ifosfamide, cisplatin)
 - ii. VIP (etoposide, ifosfamide, cisplatin)
 - iii. TIP (paclitaxel, ifosfamide, cisplatin)

*Applies to chemotherapy regimens with or without monoclonal antibodies (e.g., trastuzumab, rituximab)

B. APPENDIX B: Selected Chemotherapy Regimens with an Incidence of Febrile Neutropenia of 10% to 19%*

- 1. Occult primary – adenocarcinoma:
Gemcitabine/docetaxel
- 2. Breast cancer:
 - i. Docetaxel
 - ii. CMF classic (cyclophosphamide, methotrexate, fluorouracil)
 - iii. CA (doxorubicin, cyclophosphamide) (60 mg/m²) (hospitalized)
 - iv. AC (doxorubicin, cyclophosphamide) + sequential docetaxel (taxane portion only)
 - v. AC + sequential docetaxel + trastuzumab
 - vi. A (doxorubicin) (75 mg/m²)
 - vii. AC (doxorubicin, cyclophosphamide)
 - viii. CapDoc (capecitabine, docetaxel)
 - ix. Paclitaxel every 21 days
- 3. Cervical Cancer:
 - i. Irinotecan
 - ii. Cisplatin/topotecan
 - iii. Paclitaxel/cisplatin
 - iv. Topotecan

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4. Colorectal Cancer:
 - i. FL (fluorouracil, leucovorin)
 - ii. CPT-11 (irinotecan) (350 mg/m² q 3 wk)
 - iii. FOLFOX (fluorouracil, leucovorin, oxaliplatin)
5. Esophageal and Gastric Cancers:
 - i. Irinotecan/cisplatin
 - ii. Epirubicin/cisplatin/5-fluorouracil
 - iii. Epirubicin/cisplatin/capecitabine
6. Non-Hodgkin's lymphomas:
 - i. EPOCH-IT chemotherapy
 - ii. GDP (gemcitabine, dexamethasone, cisplatin/carboplatin)
 - iii. GDP (gemcitabine, dexamethasone, cisplatin/carboplatin) + rituximab
 - iv. FMR (fludarabine, mitoxantrone, rituximab)
 - v. CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone) including regimens with pegylated liposomal doxorubicin
 - vi. CHOP + rituximab (cyclophosphamide, doxorubicin, vincristine, prednisone, rituximab) including regimens with pegylated liposomal doxorubicin
 - vii. CHP (cyclophosphamide, doxorubicin, prednisone) + brentuximab vedotin
 - viii. Bendamustine
7. Non-Small Cell Lung Cancer:
 - i. Cisplatin/paclitaxel
 - ii. Cisplatin/vinorelbine
 - iii. Cisplatin/docetaxel
 - iv. Cisplatin/etoposide
 - v. Carboplatin/paclitaxel
 - vi. Docetaxel
8. Ovarian cancer:

Carboplatin/docetaxel
9. Prostate cancer:

Cabazitaxel
10. Small Cell Lung Cancer:

Etoposide/carboplatin
11. Testicular Cancer:
 - i. BEP (bleomycin, etoposide, cisplatin)
 - ii. Etoposide/cisplatin
12. Uterine sarcoma:

Docetaxel

*Applies to chemotherapy regimens with or without monoclonal antibodies (e.g., trastuzumab, rituximab)

VI. REFERENCES

1. Neulasta [package insert]. Thousand Oaks, CA: Amgen Inc.; January 2020.
2. Fulphila [package insert]. Zurich, Switzerland: Mylan; May 2019.
3. Udenyca [package insert]. Redwood City, California: Coherus BioSciences, Inc.; September 2019.
4. Ziextenzo [package insert]. Princeton, NJ: Sandoz Inc.; November 2019.
5. Nyvepria [package insert]. Lake Forest, IL: Hospira, Inc.; June 2020.
6. The NCCN Drugs & Biologics Compendium® © 2020 National Comprehensive Cancer Network, Inc. Available at: <https://www.nccn.org> Accessed June 10, 2020.

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1931-A

7. National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology: Hematopoietic Growth Factors. Version 2.2020.
https://www.nccn.org/professionals/physician_gls/pdf/growthfactors.pdf Accessed June 02, 2020.
8. IBM Micromedex® DRUGDEX ® (electronic version). IBM Watson Health, Greenwood Village, Colorado, USA. Available at <https://www.micromedexsolutions.com> (Accessed: 06/10/2020).
9. Aapro 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 tumors. *Eur J Cancer*. 2011;47(1):8-32.
10. Smith TJ, Bohlke K, Lyman GH, et al. Recommendations for the use of white blood cell growth factors: American Society of Clinical Oncology Clinical Practice Guideline Update. *J Clin Oncol*. 2015;33(28):3199-3212.
11. National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology: Hairy Cell Leukemia. Version 1.2020.
https://www.nccn.org/professionals/physician_gls/pdf/hairy_cell.pdf Accessed June 10, 2020.
12. 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(19):3187-3205.
13. NCCN hematopoietic growth factors. Short-term recommendations specific to issues with COVID-19 SARS-CoV-2). National Comprehensive Cancer Network, Inc. Available at: https://www.nccn.org/covid-19/pdf/HGF_COVID-19.pdf. Accessed June 02, 2020.