# *PROCEDURE*

ORIGINAL DATE: 04/01
**REVISION DATE: 04/15**

**Home Health Foundation, Inc.**

**SUBJECT: FILGRASTIM, ADMINISTRATION OF**

PURPOSE: To safely administer Filgrastim (Neupogen) in the home setting.

## GENERAL INFORMATION

1. Filgrastim is a recombinant granulocyte colony stimulating factor (G-CSF) that increases the bone marrow production of white blood cells (neutrophils). Filgrastim is used as a treatment for neutropenia (low white blood cell count).
2. Filgrastim decreases the incidence of infection in patients with nonmyeloid malignancies receiving myelosuppressive anticancer drugs associated with a significant incidence of severe neutropenia with fever.
3. Filgrastim is indicated for the following:
    - febrile neutropenia due to chemotherapy in patients with non-myeloid malignancies
    - febrile neutropenia after bone marrow transplant in patient with non-myeloid cancers
    - mobilization of peripheral blood progenitor cells (PBPCs) for transplantation
    - severe chronic neutropenia
    - reducing the time to neutrophil recovery after chemotherapy in patients with acute myelogenous leukemia.
4. Filgrastim may be given either IV or SQ, as a bolus or as an infusion.
5. Filgrastim may be diluted in 5% dextrose. Do not dilute with saline as precipitation may result.
6. Filgrastim should be stored refrigerated; warm to room temperature before administration. Discard after exposure to room temperature for 24 hours. Avoid shaking.
7. CBC and platelet count should be obtained prior to chemotherapy, and twice weekly during Filgrastim therapy. For patients receiving long-term therapy for severe chronic neutropenia, after the initial dosage stabilization, CBC and platelet count may be monitored monthly.
8. IV dose is used for a maximum of 14 days. Plasma levels are similar with IV or subcutaneous. Subcutaneous dose can replace IV dose at any time with physician's order.
9. Patients who donate bone marrow may receive higher doses and may experience severe bone pain. Administration is governed by protocol.

## PROCEDURE

1. Each patient referred for home administration of IV Filgrastim will be evaluated on an individual basis. Prior to initiating home therapy, patients should have received at least one dose in the hospital in which there were no serious adverse effects (a first dose of subcutaneous Filgrastim may be given in the home).
2. Obtain baseline vital signs before initiating the infusion.
3. Notify physician if infection or fever is present and/or occurs.
4. Discontinue Filgrastim if generalized allergic reactions occur. Notify physician, and treat allergic reactions as indicated.

## DOSE/RATE OF ADMINISTRATION

1. **Dose:** 5 mcg-10 mcg/kg/day as a single daily dose for up to 14 days based on specific chemotherapy protocol and post nadir absolute neutrophil count (ANC). Range may be from 2 to 100 mcg/kg/ day. Should not be used 24 hours before to 24 hours after the administration of cytotoxic chemotherapy or bone marrow transplant.
2. Infusion rate to vary per physician order. Infusion dose should not be administered at rate less than 15 minutes. May be administered through Y-tube or med-port of an existing IV.
3. Concentrations between 5 and 15 mcg/ml require addition of albumin 2 mg/ml to minimize absorption to plastic bags and tubing.
4. Avoid shaking.

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*Reference:*
Intravenous Medications 30th Edition, 2014, Elsevier Health, Gahart B.L., RN, Nazareno, A.R., Pharm D, Pg 129-132

Approved Policy Committee: 04/14/15