PROCEDURE

ORIGINAL DATE: 04/01
Revised Date: 09/02

Home Health Foundation, Inc.

SUBJECT: (FILGRASTIM), ADMINISTRATION OF IV G-CSF

PURPOSE: To safely administer G-CSF 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. G-CSF 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 (PBPC's)
    - sever 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. G-CSF may be diluted in 5% dextrose. Do not dilute with saline as precipitation may result.
6. G-CSF 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 G-CSF therapy. For patients receiving long-term therapy for severe chronic neutropenia, after an initial dosage stabilization, CBC and platelet count may be monitored monthly.
8. Filgrastim is covered by Medicare Part B when administered in a physician's office. Most private health plans offer coverage for home use of filgrastim. Reimbursement information and a patient assistance program are available through the manufacturer, Amgen (800-272-9376).
9. Has been used in over 100 children from 3 months to 18 years of age with similar experience to the adult population, even though literature says safety not established.
10. IV dose has been used for a maximum of 14 days. Plasma levels are similar with IV or subcutaneous, so subcutaneous dose can replace IV dose at any time.

POLICY

1. Each patient referred to 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.
2. The physician ordering home filgrastim therapy will be required to order treatment protocols in the event that the patient experiences adverse reaction(s) to this drug, i.e. itching, redness, swelling at the injection or IV site. Anaphylaxis has not occurred but is possible. Complaints of dose related bone pain are common and may require analgesics.
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.
5. Before initiating the infusion, the nurse should obtain baseline vital signs.

DOSE/RATE OF ADMINISTRATION

1. **Dose:** 5 mcg-10 mcg/kg/day as a single daily dose for up to 2 weeks 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 .
2. Infusion rate to vary per MD 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!