Filgram™

Filgrastim Concentrated Solution BP Injection

DESCRIPTION

Filgram™ is a preparation of Filgrastim which is a human granulocyte colony stimulating factor (G-CSF), produced by recombinant DNA technology. Colony-stimulating factors are glycoproteins which act on hematopoietic cells by binding to specific cell surface receptors and stimulating proliferation, differentiation, and some end-cell functional activation. Endogenous G-CSF is a lineage specific colony stimulating factor that is produced by monocytes, fibroblasts, and endothelial cells. G-CSF regulates the production of neutrophils within the bone marrow and affects neutrophil progenitor proliferation, differentiation, and selected end-cell functions (including enhanced phagocytic ability, priming of the cellular metabolism associated with respiratory burst, antibody-dependent killing, and the increased expression of some cell surface antigens). G-CSF is not species-specific and has been shown to have minimal direct in vivo or in vitro effects on the production of hematopoietic cell types other than the neutrophil lineage.

INDICATIONS

- Decrease the incidence of infection, as manifested by febrile neutropenia, in patients with nonmyeloid malignancies receiving myelosuppressive anti-cancer drugs associated with a significant incidence of severe neutropenia with fever.
- Reduce the time to neutrophil recovery and the duration of fever, following induction or consolidation chemotherapy treatment of patients with acute myeloid leukemia (AML).
- Reduce the duration of neutropenia and neutropenia-related clinical sequelae, e.g., febrile neutropenia, in patients with nonmyeloid malignancies undergoing myeloablative chemotherapy followed by bone marrow transplantation (BMT).
- Mobilize autologous hematopoietic progenitor cells into the peripheral blood for collection by leukapheresis.
- Reduce the incidence and duration of sequelae of severe neutropenia (e.g., fever, infections, oropharyngeal ulcers) in symptomatic patients with congenital neutropenia, cyclic neutropenia, or idiopathic neutropenia.

DOSAGE AND ADMINISTRATION

- **Patients with cancer receiving Myelosuppressive Chemotherapy or Induction and/or Consolidation Chemotherapy for AML:** Recommended starting dose is 5 mcg/kg/day subcutaneous injection, short intravenous infusion (15 to 30 minutes), or continuous intravenous infusion.
- **Patients with Cancer Undergoing Bone Marrow Transplantation:** 10 mcg/kg/day given as an intravenous infusion no longer than 24 hours.
- **Patients Undergoing Autologous Peripheral Blood Progenitor Cell Collection and Therapy:** 10 mcg/kg/day subcutaneous injection. Administer for at least 4 days before first leukapheresis procedure and continue until last leukapheresis.
- **Patients with Congenital Neutropenia:** Recommended starting dose is 6 mcg/kg subcutaneous injection twice daily.
- **Patients with Cyclic or Idiopathic Neutropenia:** Recommended starting dose is 5 mcg/kg subcutaneous injection daily.

CONTRAINDICATIONS

Patients with a history of serious allergic reactions to human granulocyte colony-stimulating factors such as Filgrastim or Pegfilgrastim.

ADVERSE REACTIONS

- With nonmyeloid malignancies receiving myelosuppressive anti-cancer drugs: pyrexia, pain, rash, cough, and dyspnea
- With AML: pain, epistaxis and rash
- With nonmyeloid malignancies undergoing myeloablative chemotherapy followed by BMT: rash
- Undergoing peripheral blood progenitor cell mobilization and collection: bone pain, pyrexia and headache.
- Symptomatic patients with severe chronic neutropenia: pain, anemia, epistaxis, diarrhea, hypoesthesia and alopecia.

WARNING AND PRECAUTION

- Fatal splenic rupture: Evaluate patients who report left upper abdominal or shoulder pain for an enlarged spleen or splenic rupture.
- Acute respiratory distress syndrome (ARDS): Evaluate patients who develop fever and lung infiltrates or respiratory distress for ARDS. Discontinue Filgrastim in patients with ARDS.
- Serious allergic reactions, including anaphylaxis: Permanently discontinue Filgrastim in patients with serious allergic reactions.
- Fatal sickle cell crises: Have occurred.

USE IN PREGNANCY AND LACTATION

Pregnancy Category C: There are no adequate and well-controlled studies in pregnant women. The potential risk to the fetus is unknown. Reports in the scientific literature have described transplacental passage of Filgrastim in pregnant women when administered ≤ 30 hours prior to preterm delivery (≤ 30 weeks gestation). Filgrastim should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

It is not known whether Filgrastim is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised if Filgrastim is administered to women who are breastfeeding.

PEDIATRIC USE

In patients with cancer receiving myelosuppressive chemotherapy, 15 pediatric patients median age 2.6 (range 1.2 – 9.4) years with neuroblastoma were treated with myelosuppressive chemotherapy (cyclophosphamide, cisplatin, doxorubicin, and etoposide) followed by subcutaneous Filgrastim at doses of 5, 10, or 15 mcg/kg/day for 10 days (n = 5/dose). The pharmacokinetics of Filgrastim in pediatric patients after chemotherapy are similar to those in adults receiving the same weight-normalized doses, suggesting no age-related differences in the pharmacokinetics of Filgrastim. In this population, Filgrastim was well tolerated.

OVERDOSAGE

The maximum tolerated dose of Filgrastim has not been determined. In Filgrastim clinical trials of patients with cancer receiving myelosuppressive chemotherapy, WBC counts > 100,000/mm^3 have been reported in less than 5% of patients, but were not associated with any reported adverse clinical effects. Patients in the BMT studies received up to 138 mcg/kg/day without toxic effects, although there was a flattening of the dose response curve above daily doses of greater than 10 mcg/kg/day.

DRUG INTERACTIONS

Drug interactions between Filgrastim and other drugs have not been fully evaluated. Drugs which may potentiate the release of neutrophils, such as lithium, should be used with caution. Increased hematopoietic activity of the bone marrow in response to growth factor therapy has been associated with transient positive bone-imaging changes. This should be considered when interpreting bone-imaging results.

STORAGE

Store in the refrigerator at 2 °C to 8 °C temperature. Do not freeze. Do not shake. Keep away from light & wet place. Keep out of reach of children.

PACKAGING

Filgram™ 30 MU (300 µg) IV/SC Injection: Each pre-filled syringe contains Filgrastim concentrated solution BP equivalent to Filgrastim 300 mcg (30 MU) in 0.5 ml solution.

SK+F
Manufactured by
ESKAYEF PHARMACEUTICALS LIMITED
TONGI, GAZIPUR, BANGLADESH
TM TRADEMARK
PM07949 V01