

## What is filgrastim (GCSF)?

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### What are Granulocyte Colony Stimulating Factors (GCSFs)?

Granulocyte Colony Stimulating Factors (GCSFs) are hematopoietic growth factors that enhance neutrophil production, release from bone marrow, and phagocytosis. Neutrophils are important because they are the white blood cell that mounts the initial quick response to infection. In the setting of chemotherapy-induced neutropenia, the number of neutrophils may not be sufficient to mount the initial quick response. This leaves patients at increased risk of serious infection that can occur with minimal symptoms and rapidly progress into sepsis and/or possibly death. Neutropenia is the major dose limiting toxicity of cancer chemotherapy.

GCSFs may be used when there is a high risk of chemotherapy-induced neutropenia occurring. GCSF use can help maintain chemotherapy dose intensity, shorten the duration of neutropenia, decrease the incidence of febrile neutropenia, and decrease the need for prophylactic antibiotics.

For more information on how GCSFs are used in BC Cancer Chemotherapy Protocols, refer to the *Granulocyte Colony Stimulating Factors* section of the Clinical Pharmacy Guide [Module 5 – [Supportive Care](#)].

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