

## **Comparison of pegfilgrastim with filgrastim on febrile neutropenia, grade IV neutropenia and bone pain: a meta-analysis of randomized controlled trials.**

Pinto L, Liu Z, Doan Q, et al. *Curr Med Res Opin.* 2007; **23(9)**:2283-95.

Study overview: This meta-analysis of randomised controlled trials was carried out to compare the effects of primary prophylaxis with either daily granulocyte colony-stimulating factor (G-CSF; filgrastim) or pegfilgrastim, on the incidence of febrile neutropenia (FN) and related outcome measures. A systematic review of studies listed in the PubMed and EMBASE databases, published between January 1 1990 and August 31 2006, identified five phase II and III trials that met inclusion criteria. Meta-analysis of data from these studies involved 617 patients treated with various regimens for breast cancer and lymphoma. G-CSF was administered prophylactically from the first cycle of chemotherapy; either a single dose of pegfilgrastim per cycle or daily filgrastim until absolute neutrophil count (ANC) recovered to  $10 \times 10^9/L$  (median duration of administration, 11 days per cycle).

Key findings: Pegfilgrastim showed greater clinical efficacy compared with daily filgrastim, reducing the risk of FN by 36%. The incidence of neutropenia, time to ANC recovery, and incidence of bone pain were similar between the two forms of G-CSF.

Conclusions: The authors concluded that although patients in both groups were dosed until neutrophil recovery, patients treated with pegfilgrastim had a reduced risk of FN compared with patients treated with daily filgrastim.

<http://www.ncbi.nlm.nih.gov/pubmed/17697451?dopt=Citation>