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Titel des Beitrags: G-CSF in the Prevention of Febrile Neutropenia in Chemotherapy in Breast Cancer Patients

Abstract: The most common chemotherapeutic agents in the treatment of breast cancer are anthracyclines and taxanes. The major dose-limiting toxicities associated with these agents are myelosuppression and associated febrile neutropenia (FN). FN can significantly impact the ability to deliver full-dose chemotherapy on schedule and as a result may increase the risk of disease recurrence and eventual disease-related mortality. The use of granulocyte colony stimulating factors (G-CSFs) significantly improves the management of FN, both in a therapeutic and in a prophylactic approach. Nevertheless, the high cost of these agents limits their widespread prophylactic use. Therefore, the identification of patients who are at a higher risk of developing FN and who will benefit from the prophylactic use of G-CSFs has become the subject of several clinical and cost-effectiveness studies. Recently, new data have been accumulated concerning the risk of FN in different chemotherapy regimens, and different risk models have been developed to assess the neutropenic risk with all its complications. This article reviews and summarizes cutting-edge, disease-specific data as well as national and international guidelines regarding the use of G-CSFs to prevent chemotherapy-induced FN, with focus on the treatment of breast cancer.

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