Neutropenia is a severe and very frequent complication of anticancer chemotherapy. Febrile neutropenia is a serious consequence of neutropenia caused by cancer chemotherapy, often leads to hospitalization, need of parenteral antibiotics and lethal end. The therapy hematologic malignancies are developing febrile neutropenia almost all patients, the treatment of solid tumors is affected by the presence of complications in about 10 to 20 percent.

Lately, especially in the last two decades, there has been a significant progress in the prevention and treatment of this dreaded complication main contribution was undoubtedly the introduction of growth factors granulocytopoezy. Historical overview, see chapter this work.

This work aims to comprehensively discuss the febrile neutropenia caused by cancer chemotherapy in particular, pursue development opportunities prophylaxis and therapy and also compare best practices in different departments dealing with these deal with complications. The last section is devoted to economic aspects of therapy of febrile neutropenia growth factors granulocytopoezy.