

This work is devoted to the process of chemotherapy of diseases caused by parasitic protozoa. Even though being often shadowed by bacterial or viral infections, protozoan caused diseases affect hundreds of millions of people every year, especially in tropical and subtropical regions of the developing world. This great burden placed on inhabitants of these countries highlights the need for functional chemotherapeutics against these diseases, because vaccination is not yet an option. The goal of successful chemotherapy is either elimination or suppression of the parasite in the patient by exploiting its weaknesses in its life cycle or differences in physiology between the parasite and the host. The aim of this work is to provide an overview of chemotherapeutics currently approved for the treatment four most prevalent parasite diseases. The diseases are clearly described in the terms of symptoms, their socioeconomical impact and lifecycle of the parasite. An emphasis is placed on the description of mode of action of each chemotherapeutical agent and on mechanism allowing the parasite to resist the drug.