



# CHARACTERISTICS OF DRUGS FOR THE TREATMENT OF DERMATOPHYTOSIS IN SERBIA

**Dunja M. Vesković<sup>1,2</sup>, Jasmina M. Jovanović Ljubičić<sup>1</sup>, Milana M. Vuković<sup>3</sup>,  
Nemanja B. Todorović<sup>3</sup>, Katarina S. Otašević<sup>4</sup>, Jelena M. Čanji Panić<sup>3</sup>**

<sup>1</sup>Clinical Centre of Vojvodina, Clinic of Dermatovenereology Diseases, Novi Sad, Serbia

<sup>2</sup>University of Novi Sad, Faculty of Medicine Novi Sad, Department of Dermatovenereology Diseases, Novi Sad, Serbia

<sup>3</sup>University of Novi Sad, Faculty of Medicine Novi Sad, Department of Pharmacy, Novi Sad, Serbia

<sup>4</sup>University of Novi Sad, Faculty of Medicine Novi Sad, Department of Dental Medicine, Novi Sad, Serbia



Dermatophytosis is common worldwide, with a high prevalence (20-25%) in most developing countries. Choosing the right treatment is not always easy due to the availability of appropriate drugs, potential drug interactions, and side effects. In this study, a practical approach to the most commonly used topical and systemic drugs is analysed.

The aim of this study was to present the current therapeutic options for superficial fungal infections of the skin in Serbia and to evaluate the consumption of antifungals.

PubMed and Google Scholar databases were searched to identify current guidelines for the treatment of dermatophytic infections in Europe. Data on drug consumption in the Republic of Serbia were collected from the publications of the Serbian Agency for Medicines and Medical Devices (ALIMS) on trade and consumption of human drugs for each year of the observation period from 2017 to 2019.

In Serbia, seven topical antifungals were approved for dermatological use and six for systemic use. The most consumed topical antifungals for dermatological use were clotrimazole and miconazole, for each observed year. In 2019, the number of topical antifungals dispensed was 420991 for clotrimazole and 258165 for miconazole. For systemic antifungals, itraconazole and fluconazole were the most consumed. Consumption of itraconazole was 0.0904 DDD/1000 inhabitants/day and that of fluconazole was 0.0744 DDD/1000 inhabitants/day. For the treatment of the most common dermatophytosis, tinea pedis, the guidelines recommend the use of imidazole derivatives. Therefore, the highest usage of topical antifungals, clotrimazole and miconazole was expected. Oral terbinafine and itraconazole are recommended for the treatment of various dermatophytoses. The high use of itraconazole is consistent with the guidelines, whereas the high use of fluconazole is explained by its use for other indications. Topical antifungal-corticosteroid fixed combinations are recommended in international guidelines for the treatment of various types of inflammatory dermatomycoses. In Serbia, there is only one topical corticosteroid-antibiotic-antifungal combination, but no approved topical antifungal-corticosteroid fixed combinations.

The type of treatment for dermatomycosis depends on the type of tinea infection, the severity of the infection, and the characteristics and preferences of each patient. In Serbia, there are no national guidelines for the treatment of dermatophytosis. Therefore, general practitioners, as well as specialists treating patients with fungal diseases, usually decide which drug to prescribe based on their own experience or under the influence of local pharmaceutical marketing.