

## Abstract

Title: Analysis of self-medication with antibiotics in Kosovo

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**Background:** Self-medication is described as a behavior during which someone utilizes drugs for the purpose of treating self-diagnosed symptoms or disorders or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms. When certain individuals self-medicate with antibiotics, they do it without any prior consultation with a physician. The antibiotics are bought from community pharmacies without a prescription, left-over antibiotics are used or they simply decide to follow the advice given from family members, neighbors or friends. Even though antibiotics are considered revolutionary therapeutic agents in order to eradicate microbes, the repeated and improper antibiotic consumption is contributing to the increased prevalence of antibiotic resistance which nowadays is one of the world's most pressing health problems.

**Aim:** The main goal of the theoretical part is to describe self-medication with antibiotics, the patterns influencing it and some complications associated with this behavior. Furthermore, the main factors influencing antibiotic resistance, new diagnostic approaches and prevention and management strategies are further described as well. In the experimental part the main goal is to analyze the rate and reasons of self-medication with antibiotics by a population in Kosovo.

**Methods:** Literature research was performed through using PubMed in order to achieve the goal in the theoretical part of this study. The main keywords which were utilized were: „antibiotics; drug consumption; resistance; self-medication“. Additionally a validated, self-administered questionnaire was spread to a total of 300 randomly selected patients in a community pharmacy in Prishtina. Data from patients was collected during a period of two weeks.

**Results:** The prevalence of self-medication with antibiotics was high. In this group of patients 70.7% admitted to using non-prescribed antibiotics. Self-medication with antibiotics based on a previous experience was the most common source of non-prescribed antibiotic use.

Furthermore, the most frequent reasons for antibiotic consumption were cough (18.1%), urinary inflammations (17.3%) and influenza (14.6%) which were followed by gastrointestinal (12.2%) and gynecological inflammations (12.2%). On the other hand 70.3% of the patients store antibiotics at home, 58.3% have a poor knowledge regarding antibiotic resistance and 50.7% are not aware that antibiotics kill off normal flora. Nevertheless, in this group of patients 63% stated that it is important to complete an antibiotic course and except for that 55.7% of the patients were aware of the allergies/adverse effects associated with antibiotic consumption. Higher rates of self-medication with antibiotics were observed among younger respondents and respondents with a lower level of education.

**Conclusion:** Evidently, the irrational and overuse of antibiotics continues to be a significant problem in Kosovo despite the increased risks of antibiotic resistance and adverse drug reactions. According to these results it seems that unfortunately self-medication with antibiotics is common indicating that there is a need for educational campaigns which will help the public understand the proper antibiotic use and diminish the inappropriate consumption of antibiotics.