



УНИВЕРЗИТЕТ
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ШТИП

Issuing the antibiotics for children in pharmacies in Republic of Macedonia

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INTRODUCTION

The use of medicines for infants and children is presenting one unique set of challenges, because children are the most vulnerable population in any society. In contrast to adults, absorption, distribution, metabolism and excretion of drugs in infants and children can be very different. The aim of this study is to present the characteristics and classification of antibiotics recommended for children, according to WHO, EMA and MWD, pediatric dosage forms registered in Republic of Macedonia and also the most prescribed antibiotics for children in 2013 in Republic of Macedonia compared with standard treatment methods.

Materials and methods

Data analysis

Data analysis of the most prescribed antibiotics covered by the Fund for children in 2013 in Republic of Macedonia according to the number of prescribed recipes compared with the recommendations of WHO, EMA and MWD

RESULTS

The obtained results from the performed research showed that the most commonly prescribed antibiotic in 2013 is amoxicillin with clavulanic acid (875 mg + 125 mg) in form of tablet, with 280 863 prescribed recipes. Ciprofloxacin 500 mg tablet is represented with slightly fewer prescriptions 209 603, while the prescribed recipes for amoxicillin with clavulanic acid suspension is 130 961. Other antibiotics covered by the Fund, object of this study, are represented with number of prescribed recipes in range of 1200- 100 000. (Table 1)

Consumption of antibiotics in children by the generic name, the pharmaceutical form, strength and number of prescriptions

Generic pharmaceutical form and strength	Number of recipes
Amoxicillin caps. 250 mg	8.457
Amoxicillin susp. 250mg/5ml	77.992
Amoxicillin +clavulanic acid tbl./fct. (250 mg+125mg)	171
Amoxicillin +clavulanic acid tbl./fct. 500 mg	40.842
Amoxicillin +clavulanic acid susp. (125mg+31,5mg)	14.986
Amoxicillin +clavulanic acid susp. (250 mg+62,5mg)	8.557
Amoxicillin +clavulanic acid susp. (400 mg+57 mg)	130.961
Amoxicillin +clavulanic acid tbl./fct. (875 mg+125mg)	280.863
Amoxicillin cps. 500 mg	106.626
Azithromycin cps. 250 mg	7.976
Azithromycin susp.100mg/5ml	5.109
Azithromycin susp.200mg/5ml	8.564
Bacitracin+Neomycin gutt. (250IU+3500IU)/ml	1
Benzathinephenoxymethylpenicillin susp. 750.000 IU	31.664
Cefaclor cps. 500 mg	8.940
Cefaclor cps. 250 mg	1
Cefaclor susp. 250 mg/5ml	30.628
Cefaclor susp.125 mg/5ml	23.037
Cefadroxil cps. 500 mg	16.793

Conclusion

According to the obtained results, the most prescribed pediatric antibiotic in 2013 is amoxicillin with clavulanic acid (875 mg + 125 mg) in form of tablet, with 280 863 prescribed recipes, which corresponds to recommendations of MWD. In contrast the second most prescribed antibiotic Ciprofloxacin is not recommended according to WHO. Despite the regulation in Republic of Macedonia, self- medication has a relatively high percentage due to the availability of antibiotics without prescription and their inappropriate use, general lack of knowledge about mechanism of action of antibiotics, side effects and the emergence of resistance.