

Antibiotic usage in Pediatric ward in Ferizaj Hospital

Shpend Dragusha¹, Habibe Gjinolli², Bujar Qazimi¹, Valon Ejupi¹

¹UBT-Higher Education Institution, Faculty of Pharmacy, Lagjja Kalabria, p.n. 10000 Prishtinë, Kosovo

²UBT-Higher Education Institution, Faculty of Nursing, Lagjja Kalabria, p.n. 10000 Prishtinë, Kosovo

Introduction

Antimicrobial resistance (AMR) is prescribed as the loss of effectiveness of antimicrobial drugs and has become an emergent problem within the last few years. This resistance stems from overuse or rather incorrect use of antimicrobial drugs. Correct prescription of antibiotics not only slows the rates of resistance; it can also be potentially lifesaving for patients.

In children antibiotics are among the most commonly prescribed drugs. Several studies at the end of the 1970s focusing on antibiotic prescribing attitudes in hospitalized children, indicate that approximately 35% of admitted infants and children receive antibiotics.

Widespread misuse has been reported. Almost half of all antibiotic prescriptions have been found to be inappropriate, based on clinical and financial criteria. Because of the increasing costs in health care, lack of uniformity in prescribing antibiotics and the emergence of antibiotic resistance, monitoring and controlling antibiotic use is of primary health concern.

This study analyzed the use of antibiotics in a pediatric hospital over 8-week period (4 November–27 December), with special regard to antibiotic prescription attitudes and patterns (generic class, dose, duration and indication).

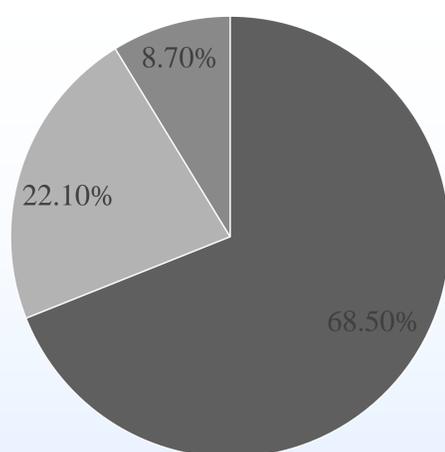
Material and Methods

This retro- and prospective study was carried out in the Ferizaj's Hospital, a Pediatric ward in the eastern part of the Kosovo. It is the only tertiary referral center for a population of approximately four hundred thousand. Over an 8-week period (4 November–27 December) in 2021 all hospitalized patients were analyzed for antibiotic use.

Results and discussion

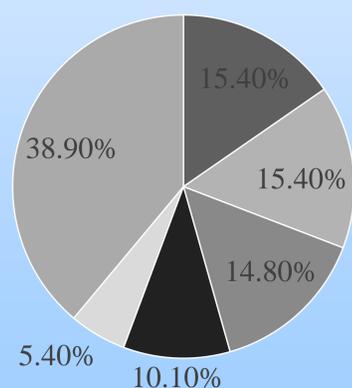
From the total of 483 patients admitted during the study period, mean of 31% received at least one course of antibiotics. Genders of patients were 46.3% female and 53.7% male patients.

Age group



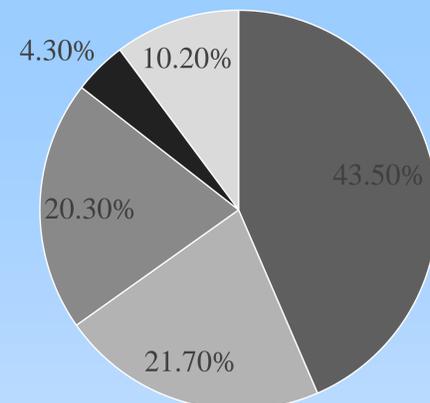
■ 0-5 years old ■ 6-11 years old ■ 12-17 years old

Most commonly diagnosed diseases



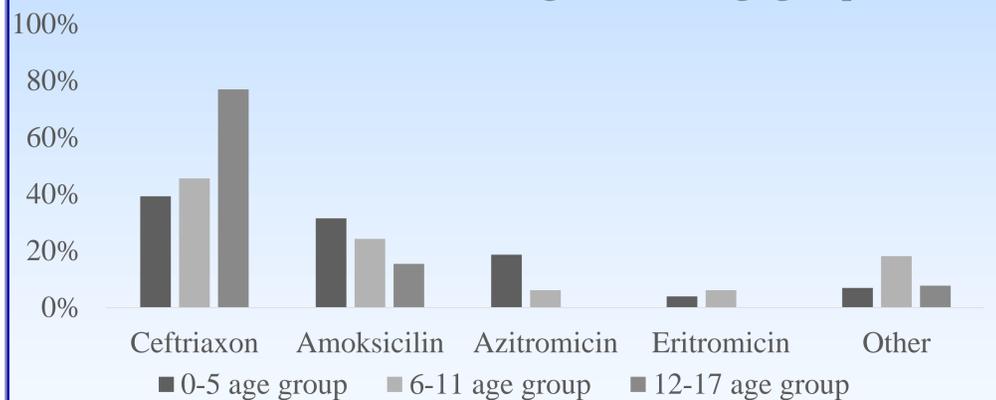
■ acute tonsillitis ■ acute bronchitis ■ acute pharyngitis
■ acute cystitis ■ abdominal colitis ■ others

Most commonly prescribed antibiotics



■ Ceftriaxon ■ Amoksicilin ■ Azitromicin ■ Eritromicin ■ Other

Distribution of antibiotic usage based on age groups



Conclusion

In this study it was shown that a high percentage of children receive antibiotics. Over 31% of all antibiotic prescriptions were started on an empirical basis, without confirmation of an infection.

In this study attention was focused on the characteristics of the population receiving antibiotics and on the indication for antibiotic prescription. The highest number of antibiotic prescriptions was made for children in the youngest age group (between 0 and 5 years). Most antibiotics were prescribed on an empirical basis.

Nowadays there are large problems with rising health care costs and the emergence of antibiotic resistance. Some recently performed studies showed an association between the prior use of antibiotics and the development of resistance. Because of these emergent threats it is necessary to review the use of antibiotics in the hospital continuously. Several professional organizations stimulate or promote a more prudent use of antibiotics. In order to improve antibiotic prescribing in pediatric population requires a stricter policy. is required.

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