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Antimicrobials: Antibiotic usage

Assessment of the antibiotic content of prescriptions for acute otitis media prescribed by primary care family physicians in Turkey throughout the year 2012

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OBJECTIVES

Antibiotics are one of the frequently used drugs in community and unfortunately located in the first row of Irrational Drug Use. Problems related to irrational use of antibiotics is an important topic in Turkey, like the other countries. Using antibiotics unnecessarily with insufficient time and dosage causes resistance. Furthermore, it can cause inefficient treatment and increasing costs of medical cares. Also profiling consumption of antibiotics is important for taking measures against problems caused by irrational use of antibiotics. In this study, we aimed to assess the antibiotic contents of prescriptions in acute otitis media (AOM) that are prescribed by primary care family physicians in Turkey throughout the year 2012.

METHOD

E-prescription data of Turkish Family physicians prescriptions in the year 2012 were obtained by Family Physician Information System (FPIS) and evaluated retrospectively by Prescription Information System (PIS). Also FPIS records of family physicians was evaluated by PIS and numbers of prescriptions including acute otitis as a only diagnose was found. We have calculated the proportion of antibiotic containing acute otitis media prescriptions in terms of number of items/case/costs. Also we have assessed injectable forms of antibiotics in prescriptions. For the cost analysis, we used drug resale prices for the year 2010. And for the classification of drugs ATC classification.

RESULTS

In 2012, 265.846.681 protocol was entered into FPIS system. 42.25% (112.327.089) were resulted with prescriptions. 405.785 prescriptions diagnosed with only acute otitis. 91.83% of this prescriptions were including antibiotics. 2.96% of all AOM prescriptions were containing injectable antibiotic forms. The general number of items in prescriptions was 1.047.485. 36.22% of these items were antibiotics, 1.15% of these items were injectable forms of antibiotics. Antibiotics are responsible for %75.15 (9.688.488 TL) of all AOM related medicine costs. Injectable forms of antibiotics cost 318.027 TL (2.47%). The most frequently prescribed antibiotic was amoxicillin and enzyme inhibitor (35.94%). The following were cefuroxime (15.86%) and cefdinir (10.73%). Cumulatively highest-cost antibiotic was cefdinir (25.1%). The following were cefuroxime (22.72%) and amoxicillin and enzyme inhibitör (21.42%).

CONCLUSION

This study shows that Turkish family physicians tend to prescribe antibiotics for AOM with very high frequency(91.83). Most commonly prescribed antibiotics were extended spectrum antibiotics. Almost total costs of AOM diagnosed prescriptions was caused by antibiotics. These findings indicates that prescribing ratio of antibiotics in AOM is very high and it increases costs of medicines. It is observed once again with this study that there is a need for auditing prescribing habits of family physicians. In this study, we observed only acute otitis media diagnosed prescriptions independent from seasonal differences in 2012 all over the country. This study will be a guiding light to other studies investigating AOM related antibiotic use in secondary and tertiary health care.

