

Antibiotic and interventions to reduce inappropriate prescribing

H. Sharifi^{1,*}, A. Mohajjel Nayebi¹, S. Farajnia²

¹Department of Pharmacology and Toxicology, Faculty of Pharmacy, Tabriz University of Medical Sciences, Tabriz, Iran

²Drug Applied Research Center, Tabriz University of Medical Science, Tabriz, Iran

Background and Aims: Antibiotics are the most widely prescribed, misused and overused drugs. These drugs are frequently prescribed not only for conditions in which their use is not indicated, but are also prescribed incorrectly or in a sub-optimal way. Large body of evidence that demonstrating the overuse/misuse of antibiotics, clearly illustrates the need to understand prescribing patterns in order to be able to improve the appropriateness of prescribing, especially in primary care. In this review we explain the current condition of antibiotic prescription and interventions that done for rational prescription and usage of them.

Methods: Paper searching applied in PUBMED and SIENCEDIRECT for all studies that published since 2001 to present that have key words including “appropriate prescription” “inappropriate prescription” and “antibiotic”.

Results: Study of current condition of prescription and use of antibiotics show that physicians prescribe antibiotic for 21.9% -90.5% of patients. From the most reasons of this missordering is insufficiency of knowledge, expectant of patients and tenacity of them for antibiotic prescription. This condition can be improved by providing educational programs, campaigns for public information by using a variety of printed, electronic and broadcast media to reach target populations. and appropriate application of diagnostic tests. Moreover collaboration between physicians and clinical pharmacologists within a workplace health center is a effective method that has interesting results for patients, physicians and health system.

Conclusions: This study suggests that by continues training of prescribers, informing of patients and coordination between clinicians and pharmacologists can reduce the antibiotic prescription and resistance which leads to reduced healthcare costs, increased productivity, and reduced absenteeism.

Keywords: Antibiotic; Inappropriate prescription; Appropriate prescription; Interventions