Prescribing pattern and Drug indicators in Patients Visited by General Practitioners and Specialists in Ardabil City of Iran

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ABSTRACT

Drug is an important and strategic commodity and a basic need of the people in all countries. The aim of this study is to determine the drug use patterns and descriptive analysis of prescriptions of doctors in Ardabil city of Iran. A retrospective study was carried out on 2000 randomly-selected prescriptions. Data were obtained on demographics, prescribing indexes and analyzed by descriptive statistical methods by SPSS software. Of the 2000 prescriptions, 822 (41%) and 1178 (59%) were for men and women, respectively, by a female to male ratio of 1:0.69. The mean age of the patients was 31.6 ± 21.3 years, ranging from one to 91. 1306 (65.3%) of all prescriptions were for general practitioners and the rest for specialists. The average number of drugs per prescription was 3.58 ± 1.3, ranging from 1 to 9 drugs. Dexamethasone (219, 24.7%) was the most frequently prescribed medicine. Results demonstrated that the average number of drugs per prescription and the rate of prescribing injectable drugs were more than world standards and it is necessary to reduce these indexes and irrational use of drugs through interfering with patients' belief and physicians' attitudes.

Keywords: Medicine, Utilization, Pattern, Ardabil, Iran
and 30% of patients in Europe and the U.S., respectively, but this number is always more than 50 in Iran; nevertheless infectious diseases are not a major health problem in Iran. The irrational use of drugs and self-medication may result in many health problems for patients, such as increasing the risk of adverse drug reactions, late diagnosis and prolongation of illness, patients’ dissatisfaction, affecting patient-physician relationship, and finally raising the cost of treatment. When patients have more than two injectable drugs, between general practitioners and orthopedists, injectable drugs were corticosteroids, and injectable drugs [9].

### RESULTS

The average number of drugs prescribed for males and females was 3.57 (SD = 1.3) and 3.58 (SD = 1.3). In all prescriptions, 822 (41%) and 1178 (59%) were for males and females, respectively. Mean of the patients’ age was 31.6 (SD = 21.3) ranging from 1 to 91 years.

Patients’ dissatisfaction, affecting patient-physician relationship, and finally raising the cost of treatment are commonly used medications in Iran; nevertheless infectious diseases are not a major health problem in Iran. The irrational use of drugs and self-medication may result in many health problems for patients, such as increasing the risk of adverse drug reactions, late diagnosis and prolongation of illness, patients’ dissatisfaction, affecting patient-physician relationship, and finally raising the cost of treatment. When patients have more than two injectable drugs, between general practitioners and orthopedists, injectable drugs were corticosteroids, and injectable drugs [9].

#### Materials and Methods

This is a retrospective cross-sectional descriptive study that has been done on 2000 prescriptions, randomly selected from all archived prescriptions. The selection is done by season in each insurance organization. Information was analyzed by descriptive and statistical methods in SPSS.
There are many factors which directly or indirectly have an effect on drug use for outpatients. The average number of drugs per prescription was 3.6 which is more than a study in Tehran with 2.58 [10]. These numbers indicate the irrational pattern of drug use for outpatients.

Considering the increasing number of drug-resistant organisms, this high rate of irrational use of antibiotics will burden higher costs of new generations of antibiotics and may disarm health professionals in treating infectious diseases. The rational use of drugs, especially antibiotics, should be initiated by physicians, as the authorized group of drug prescribers. It may need much more time to change the patients’ attitude, as the drug consumers [11].

Lack of the community awareness about the effects and side effects of medications can be the cause of many health problems for patients and also high healthcare costs for families and society. There are many medical conditions which basically are not considered as disorder and do not need any drug. Expecting a drug prescription is one of the patients’ most important problems, especially when the patient is a child. Health recommendations are hardly accepted by patients and their parents. Some patients believe that pain and/or fever always are the symptoms of an infection and always need any drug. Misuse antibiotics to relieve these symptoms. They may obtain the antibiotics directly from pharmacies (self-medication) or insist on their physicians to prescribe it.

There is not an exact estimation of what percent of the requests are accepted by physicians.

The results represent the irrational use of drugs among patients in Ardabil. There are many factors which directly or indirectly have an effect on drug utilization. Lack of the community awareness is the basis of the problem. As a matter of fact, until the patients’ knowledge of drugs are not improved and drugs are not considered as potentially-harmful substances which always need a careful prescription, only by a physician, the incorrect cycle of irrational drug use will not cease. Patient-physician monetary relationship, non-perceptional drug sale, absence of a smart system of controlling drug sale and utilization are secondary effective factors in irrational drug utilization in Iran.

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