Prevalence of drug-drug interactions in an Ethiopian teaching hospital

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Drug-drug interaction (DDI) refers to the interference of a drug in the action of another drug. Frequency of drug interactions varies with the number of drugs used in combination; from 3 to 5% in patients receiving few drugs to 20% when 10 to 20 drugs are used. Computer systems have proved helpful in identifying interactions that otherwise are increasingly enormous and difficult to keep track for health professionals. The primary objective of the research was to assess the prevalence of DDIs in an Ethiopian teaching hospital from prescription papers containing two or more drugs. A retrospective study of prescription papers containing two or more drugs from September 2008 to January 2009 was carried out and the analysis of potential drug interactions was done using the online version of Micromedex/Drug-Reax system. A total of 964 prescriptions containing more than two drugs were collected and 580 potential drug interactions were found. The interaction between Ampicillin and Gentamicin, found in (29.48%) prescriptions, was the most prevalent; though with minor severity. During the study period, the most prevalent drug interaction with major severity was that between Digoxin and Spironolactone (13.44%). The presence of drug interactions is a permanent risk in hospitals. The utilization of computer programs to identify potentially interacting drug combinations and the pharmacist participation in pharmacotherapy decision making are some ways of reducing this risk.

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