PHC034

ANALYSIS OF THE INCIDENCE OF POTENTIAL DRUG INTERACTIONS IN CARDIOLOGY AND INTERNAL HOSPITALISED PATIENTS

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Background

Prescriptions with more than one drug increase the risk of drug-drug interactions, treatment failure, large pharmacological effect and adverse events.

Purpose

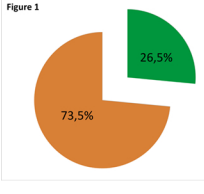
The objectives of this study were to estimate the frequency of potential drug-drug interactions in prescriptions for hospitalised patients, and to identify the factors associated with these prescriptions.

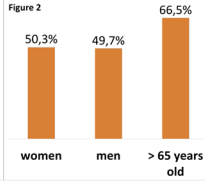
Materials and Methods

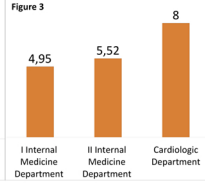
The work was in part sited in the Specialty Hospital in Rybnik (Poland) with the pharmacotherapyteam. One of the tasks of the Team was to assess on the basis of documentation, the frequency of random combinations of drugs prescribed and the risk of adverse interactions. Analyses of prescriptions for medicines were made on randomly selected days. The analysis included 276 patients on the two internal medicine wards and the cardiology ward of the hospital. Age, gender and administration of the drugs were noted. The potential D-DIs were identified and recorded.

Results

Generally 73.5% of the patients received drugs identified as potentially causing D-DIs (figure 1). 50.3% of the patients were women, 49.7% were men. 66.5% of patients older than 65 years of age received a prescription including one potential D-DI (figure 2). The average number of medicines taken by a cardiology patient was 8, the average number of medicines taken by an internal patient was 5 (figure 3).







The most frequently prescribed pairs of drugs that were potentially dangerous were: furosemide / ACE inhibitors, low-molecular weight heparin / non-steroidal anti-inflammatory drugs, non-steroidal anti-inflammatory drugs / clopidogrel, proton pump inhibitors / clopidogrel, spironolactone / potassium and theophylline / β blockers. The number of drugs received was associated factor to the potential D-DI.

Discussion

The results of the study show that a major risk factor for potential drug interactions is polipharmacotherapy. The potential impact of drug interactions in hospital practice is hyperkalemia, bleeding and cardiac arrhythmias. Using the drug combination at risk of adverse interaction is required for constant observation of the hospitalized patient's clinical status.

Conclusions

The high percentage of prescriptions with potential drug – drug interactions makes it necessary to adopt alerting strategies that include warning about any associated factors identifi ed and to implement educational programs. This action may improve the quality of prescribing and reduce the risks for hospitalised patients.

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No conflict of interest