

## **Program Adı**

PHARMACOLOGY; Master Thesis - 2015

## **Tezin Adı**

The Evaluation of Drug interaction in prescriptions dispensed in community pharmacies of Suleymaniyah, North of Iraq

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### **ABSTRACT**

The project titled as "The Evaluation of drug interaction in prescriptions dispensed in community pharmacies of Suleymaniyah, North of Iraq" was conducted in different community pharmacies under the ministry of health at northern Iraq city of Suleymaniyah.

Drug-drug interactions (DDIs) are an important type of adverse drug events. Yet overall incidence and pattern of DDIs in North of Iraq has not been well documented and little information is available about the strategies that have been used for their prevention. Most of the studies world widely were done for hospitalized patient to measure the incidence of drug-drug interactions but the primary objective of the study was to analyse the frequency of drug interactions in prescribed drugs for cardiovascular diseases outpatients and to correlate the frequency of drug interactions with demographic features of patients, and to identify risk factors for such interactions in North of Iraq city of Suleymaniyah.

The study is an observational retrospective study; the prescriptions of 1800 patients were collected and screened for cardiovascular disease patients using at least one cardiovascular related medication.

Prescriptions were collected randomly from 50 community pharmacies out of nearly 149 registered pharmacies in the ministry of health at northern Iraq city of Suleymaniyah. 141 prescriptions were retrospectively analyzed for drug-drug interactions using three different drug-drug interaction data bases namely Medscape, Lexi-comp and Drugs.com or Drug Interactions Identifier. Relevant drug interactions were graded by their level of severity (major, moderate and minor). Statistic workup is carried using graph pad prism version 6.07 and descriptive methods.

It is concluded that the rate of adverse drug reactions increases exponentially after a patient has been on multiple medications; therefore it is very important to make efforts to reduce polypharmacy. However the number of medications cannot always be reduced without doing harm. This is why the understanding of the basis for drug interactions is so important. Clinicians should be aware of the potential interactions and this will enhance the use of rational drug therapy and better drug combinations.

**Keywords:** DDIs, Adverse drug events, prescriptions, cardiovascular drugs, pharmacokinetic, pharmacodynamics.