

## **Abstract**

### **Background and Objective**

COVID-19 pandemic is one of the most important health problems that has involved the world. Since the treatment is mainly as symptom therapy and supportive treatment, and the majority of patients are the elderly or people with underlying disease and are involved in polypharmacy, various medications are prescribed for these patients. In the meantime, drug interactions, which have always been an important issue in the field of treatment, are also discussed in the treatment of patients with COVID-19. Therefore, the aim of this study was to investigate the drug interactions in the treatment regimens of hospitalized patients with COVID-19 in Imam Khomeini Hospital in Ardabil.

### **Materials and Methods**

In this descriptive cross-sectional-analytical study, the records of 150 patients with COVID-19 who were admitted to Imam Khomeini Hospital in Ardabil were evaluated for drug interactions. Information such as age, sex, prescribed drugs, number of physicians, duration of hospitalization and recovery or death status were extracted and then interactions between prescribed drugs analyzed by up to date and Micromedex online softwares and Drug interaction facts book, in each file and finally was analyzed by statistical software, spss.

### **Results**

Among 150 patients, 126 patients (84%) recovered and 24 patients (16%) died. A total of 2184 prescribed drugs (14.56 per patient on average) and 1781 interactions (on average 11.87 interactions per patient) were found. Of these interactions, 12.74% were major, 71.30% were moderate and 15.94% were minor. Also, the share of each type of interactions was B, 22.57%, C, 60.92%, D, 13.3%, X, 3.2%. the average hospitalization days per patient was 6.6 days.

### **Discussion & Conclusions**

According to the results of this study, the number of interactions was related to the number of prescription drugs, patient's age, number of physicians, duration of hospitalization and mortality rate of patients. with more attention to the Subject of drug interactions and the stronger role of pharmacists as supervisor, many dangerous and unnecessary drug interactions can be prevented. In this way, it increases the quality of treatment and reduces its costs.

**Keywords:** Drug Interactions, COVID-19, coronavirus