

## **Abstract**

### **Analysis of clinical pharmacist`s interventions in hemato-oncology patients I**

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**Introduction and Aim:** Drug-related problems and drug interactions represent a major issue in hemato-oncology as pharmacotherapy consists of a broad spectrum of medications for most patients. The aim of the practical part of this work was to collect, classify and analyze the pharmacotherapeutic recommendations made by a clinical pharmacist for inpatients with hemato-oncological diagnoses.

**Methodology:** Data for this retrospective study were collected from patients hospitalized between January and November 2019 at the 4<sup>th</sup> Department of Internal Medicine – Hematology, University Hospital Hradec Králové. The source of the data was the complete medical documentation of patients, including pharmacotherapeutic recommendations from the clinical pharmacist. The data were anonymized, transferred to a secure web-based database and subsequently analyzed. Drug-related problems, their causes, interventions and the acceptance of recommendations by physicians were classified using the Pharmaceutical Care Network Europe classification V9.1. The management of drug-related problems was further illustrated through four case studies. The data were analyzed using descriptive statistics.

**Results:** Data were collected from a total of 203 patients, including 117 males (57.64%) and 86 females (42.36%). The average age of the patients was  $63.92 \pm 14.77$  years, and the average number of medications used was  $8.27 \pm 2.76$ . A total of 1568 diagnoses were recorded, with arterial hypertension being the most common. Each patient had at least one hemato-oncological diagnosis. In total, 333 drug-related problems were identified. At least one drug-related problem was recorded in 131 patients. The most common cause of drug-related problems was the "selection of medication" (41.44%). The vast majority of the clinical pharmacist's recommendations were accepted and a total of 276 (82.88%) drug-related problems were fully resolved.

**Conclusion:** Drug-related problems are prevalent in pharmacotherapy in hemato-oncology. The involvement of a clinical pharmacist in a multidisciplinary team can significantly contribute to the identification and resolution of drug-related problems.

**Keywords:** Hemato-oncology, drug-related problems, clinical pharmacist.