# **Summary**

# Title: Research and assessment of the conditions of pharmaceutical prescription in Polish healthcare system

## Introduction

Polish pharmaceutical law provides the possibility of a prescription issued by a pharmacist only without refunds in emergency situations related to a sudden threat to the health of the patient. Pharmaceutical rights are wider in many countries and include, among others, independent and doctor-dependent issuance of prescriptions, which fully exploits the potential of this professional group.

### Aim

The aim of this study was to examine and evaluate the conditions of pharmaceutical prescription in the Polish healthcare system. This was done through a secondary analysis of data assessing the current functioning of pharmaceutical prescriptions and through observational studies showing the need of Polish patients for pharmaceutical follow-up.

#### **Methods**

The work analyzes the legal texts. Then, a secondary analysis of the data obtained from the State Pharmaceutical Inspectorate was carried out, based on post-inspection protocols from the pharmacies of the Kuyavian-Pomeranian Voivodeship. The documentation of 842 pharmacies from 2002 - 2016 was analyzed. In the second phase, an observational study was conducted, in which 32 pharmacies took part, volunteering for participation in it. The bioethical committee expressed its consent to this part of the research. It analyzed the frequency of occurrence of pharmaceutical incidents, consisting a patient's attempt to obtain a drug available on the basis of a prescription, without this document. The proprietary forms presented in the Annex were used to collect data. All calculations and statistical analysis were performed using the Microsoft Excel spreadsheet and the Statistica 10.0 software system.

#### **Results**

Pharmaceutical prescriptions, which can be compared to emergency prescription, functioning in some countries around the world, were rarely displayed in Poland. In about 28% of inspected pharmacies such prescription was ever issued, most often for anti-infective drugs used in hypertension and ischemic heart disease. At the same time, many errors were found in the use of pharmaceutical prescriptions and keeping their records. In addition, more than half of the registered pharmaceutical prescriptions were issued to the pharmacist or a member of their family.

The observational study found 769 pharmaceutical incidents reflecting the need for pharmaceutical prescription follow-up among Polish patients. On average, 24 events occurred in each participating pharmacy. Most often, patients reported the need to use drugs for cardiovascular and central nervous system diseases, and the least frequently for

dermatological diseases. Recommendation to visit the doctor was a typical conduct of the pharmacy employees.

## **Conclusions**

The ambiguity of the regulations on pharmaceutical prescriptions and their misinterpretation by pharmacists cause that these prescriptions do not perform their function as a support for patients in emergency situations when their health or life is in danger. At the same time, observational studies show that the demand for pharmaceutical prescription is high. Therefore, it is necessary to intensify work on extending the pharmacist's rights in Poland to be able to write refunded prescriptions for certain groups of medicines as part of continuing pharmacotherapy.

Key words: health care system, pharmaceutical law, community pharmacies, pharmaceutical prescribing, emergency supply of medicines.