

ABSTRACT

Incidence and Analysis of Drug-Related Problems in A Long-Term Care Facility

Author: Mgr. Anna Králová

Thesis Supervisor: PharmDr. Martin Doseděl, Ph.D

Charles University in Prague, Faculty of Pharmacy in Hradec Králové, Department of Social and Clinical Pharmacy

BACKGROUND

A drug-related problem (DRP) is an event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes.

AIM

The aim of this thesis is to analyse and evaluate the incidence of drug-related problems in a long-term care facility.

METHODS

This research was conducted in the long-term care facility of the Military University Hospital in Prague between March and August 2014. Data were gathered from medical records and healthcare workers. In particular, the patient case history, laboratory and physical parameters, and drug therapy data were collected. The modified PCNE-DRP Classification (Pharmaceutical Care Network Europe), version 5.01, was used to classify the detected DRPs. Recommendations to eliminate DRPs have been suggested by a pharmacist and presented orally during ward rounds. The results of these recommendations have then been recorded. Descriptive statistics were used to evaluate research results.

RESULTS

The medical records of 75 patients with an average age of 82.76 were evaluated during six months. There were 31 men and 44 women in the group. In total, 540 pharmaceutical drugs were applied and 141 DRPs have been identified (1.86 DRPs per patient on average). Most frequent DRPs were classified as “Drug Selection Problems (79 cases), “Drug Dosage Problems” and “Other Problems (23 cases each). “Drug Dispensing, Application and Use Problems” (9 cases) and “Drug Interaction” and “Adverse Drug Reaction” (3 cases each) followed. The unclear indication of drugs (e.g. omeprazol application) has been identified as the most frequent DRP followed by drugs missing in prescriptions despite their clear indication (e.g. the absence of ACE inhibitors at patients with the high risk of heart failure). All the detected DRPs have been classified and statistically evaluated. The recommendations resulting from the identified problems have been presented orally during regular ward rounds.

Their acceptance by physicians has been rated as follows: 46 % of recommendations have been accepted, 26 % recommendations have been accepted with reservations, and 28 % recommendations were rejected.

CONCLUSION

The pharmacist's activity detected potential drug related problems in the elderly inpatients. This work pointed out the most frequent drug related problems in the particular hospital facility and outlined the possibilities of their management including acceptance-rate of pharmacist's recommendations to the prescribing doctors.

KEY WORDS

Drug-related problems, clinical pharmacy, geriatrics, PCNE classification, Czech Republic