Abstract

Analysis of drug administration by nurses in health facility VII

Author: Barbora Polášová

Tutor: doc. PharmDr. Josef Malý, Ph.D.

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

Introduction and aims: Medication errors can cause a great risk in administration of drugs to health of patients. The aim of this thesis was to analyze the administration of drugs by nurses to patients hospitalized in three different wards in a medical facility in the South Bohemian region.

Mathods: This thesis is a part of an observational-interventional study, ongoing in 2020–2023. Collection of data was held in one of South Bohemian hospitals in the surgery, internal medicine and aftercare wards between 17th May and 19th May. Data were collected by a direct observation method by a trained multidisciplinary team consisting of pharmacists and nurses. The observed parameters were: information about patient (e.g. gender, age and used medications), information about nurse (e.g. gender, age, length of practice) and drug administration´s data (e.g. hygiene, patient identification, correct medication, right dose and strength, right patient, correct time, way of drug´s manipulation, used drink for wash down, time interval from food). All collected data were anonymized, transferred to a web database, analyzed and subsequently evaluated using descriptive statistics and selected statistical tests.

Results: The administration of 1224 drugs was observed by 18 nurses to 68 hospitalized patients. The administration of solid oral dosage forms was most represented (83,9 %). Medication errors detected: not performer hand disinfection was in 22,8 % and not perfomed patient identification was in 35,5 %. The most frequently observed medication errors were: failure in check of drug use (11,9 %), generic substitution by a nurse (7,8 %), interruption of a nurse (7,3 %), incorrect time of administration (4,2 %) and use of a different drug strength (2,7 %). Incorrect time interval from food was observed in 25,3 % of cases.

Conclusion: The obtained results indicated risks that can negatively affect the patient during administration of drugs. The analysis showed an improvement in most cases compared to the previous year, after which the hospital management and health workers were informed about individual errors and possible improvements. Placed procedures must be followed and staff education must be repeated to minimize risks.

Key words: medication error, nurse, drug administration