Abstract

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Title of thesis: Analysis of drug administration by nurses in health facility XVI.

Introduction

Medication errors are a very common problem that can arise at different levels and can lead to disruptions in the safety and effectiveness of the provided healthcare. The analysis of medication errors can help to improve the quality of patient care.

Objective

The aim of the practical part of this thesis was to describe and analyse the observed errors in the administration of medicines by a nurse in a healthcare facility.

Methodology

For the thesis, the method of direct observation by a trained team (pharmacist, nurse) was chosen and errors in the administration of drugs by the nurse to hospitalized patients were recorded. The observation took place in three departments of the hospital during January 2023. These departments were surgery, internal medicine and the aftercare unit. The collection took place on three consecutive days during morning, midday and evening drug administration to the patients. Parameters monitored were: patient information (e.g. age, medications used), nurse information (e.g. age, length of practice), and medication administration data (e.g. hand hygiene, patient identification, correct medication, correct dose and strength, correct patient, correct time, manipulation with drug and equipment, used beverage, time apart from food). The collected data were anonymized, put into a web database, analyzed and evaluated with descriptive statistics.

Results

A total of 1225 drug administrations by the nurse were recorded during the collection. The highest number of errors was observed in the aftercare unit. The most common error was lack of patient identification, 67.8 % of drugs were administered without previous patient identification. Other common errors included omission of hand disinfection (33.9 %) and unchecked use of the drug by the patient (22.3 %). Serious medication errors included administration of the wrong dose of the drug (1.8 %), substitution of drug form (1.3 %) and incorrect way of administration (0.6 %). Also, in 13.2 % of solid oral drug form, errors in timing of drug administration relative to food were noted.

Conclusion

Out of a total of 1225 medication administrations by the nurse to 77 patients, at least one error was identified for each of them. A significant burden of errors was related to the high occurence in lack of patient identification or insufficient hygiene by the nurse before administering medications; we recommend paying particular attention to these categories.