

ABSTRACT

Charles University

Faculty of Pharmacy in Hradec Králové

Department of Social and Clinical Pharmacy

Candidate: Mgr. Kryštof Dobečka

Consultant: PharmDr. Martin Doseděl, Ph.D.

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

The aim of this rigorous thesis is to deal with errors of nurses during medication administration to inpatients. In the theoretical part, the emphasis is firstly placed on prevalence of medication errors, preventive measures, and risk factors. Secondly, the five rights of medication administration are described as the standard for safe practices for medication use. Lastly, automated technologies, such as electronic medication administration records (eMARs), barcode medication administration (BCMA), or automated dispensing cabinets (ADCs), are presented as a possible means for elimination of medication administration errors. In the practical part, the data from direct observation of nurses were analysed. Nurses at an internal, surgical and aftercare department of a healthcare facility were being observed for three days during the morning, noon, and evening medication administration. The team of observers comprised of pharmacists and experts on nursing care. During the observation, 21 nurses administered 144 different drugs / combinations of drugs to 76 inpatients with the total number of 1 471 individual administrations. Medication errors were observed and classified as major, specific, or procedural. In total, 51 major medication errors were detected, which represents 3,47 % of the total number of administrations. In two cases, the medication error had a potential to cause direct harm to the patient. Other errors relevant to patient safety were observed – for instance, insufficient identity verification before drug administration (in 99,12 % of administrations, the patient's identity was not properly verified by checking their name; in 80,56 %, the wristband was not checked before administration), or insufficient hand hygiene (40,04 % of administrations).