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Introduction and aims: Medication errors contribute significantly to the occurrence of adverse events that can impact patient health. The aim of this thesis was to analyze the administration of drugs to patients hospitalized by nurses in one of four studied health facilities in the South Bohemia region in the surgical, internal medicine and aftercare wards.

Methods: This diploma thesis is part of an observational-interventional study, in years 2020–2023. Observations took place in internal medicine, surgery and aftercare wards. Collection of data was held from 23th May to 26th May 2022 by a multidisciplinary team made up of a pharmacist and a nurse by direct observation method. These following data were collected: information about patient (e.g., gender, age, and any medications taken), information about the nurse by whom the medications were administered (e.g., age, years of experience, highest educational attainment), and information recorded during the actual administration of the medications (e.g. nurse compliance with hygiene requirements; patient identification; checking originality of the drug; whether the right drug was administered to the right patient, at the right strength and dose, at the right time; implementation of generic substitution by nurse; beverage used when the drug was ingested; timing of administration of the drug from food). All observational data were anonymised and subsequently uploaded to a web-based database. The collected data were evaluated using descriptive statistics and statistical tests.

Results: In this work, 1961 drug administrations given by 15 nurses (100 % female; median age: 38 years), to 95 patients (60 % male; median age: 71 years), in the three wards were observed. Solid oral dosage forms were the most represented (83,8 %). Non-compliance with pre-administration hygiene requirements was observed in 46,6 % of the administrations, and patient identification was not performed in 51,6 % cases. These following medication errors were observed most frequently: generic substitution by the nurse (2,4 %), incorrect drug dose (1,8 %), failure in check of drug use (1,8 %), and incorrect method of drug administration by the patient (1,7 %). Incorrect interval from food was observed in 322 (19,7 %) cases.

Conclusions: Medication errors that could have negatively affected patient safety were monitored during drug administration. Therefore, it is clear that the interventions placed after the first round of observation need to be repeated and targeted at doctors and the ward working system in addition to the nursing process.

Key words: medication error, drug administration, nurse.