Abstract

Analysis of drug administration by nurses in health care facility IX

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Introduction and objective: In drug administration, the safety or efficacy of pharmacotherapy can be affected by medication errors that can occur at any time in the drug handling process and are due to human factor errors. The aim of the practical part of thesis was to identify and analyze the administration of drugs by nurses to patients in a healthcare facility.

Methodology: In both the 1st (pilot) phase and the 2nd phase of data collection, the direct observation method was used. An observer (the study investigator) monitored morning, midday and evening oral drug administration during 30 working days in December 2023 and in January 2024 in four wards of one hospital. The following parameters associated with drug administration were observed and recorded: patient information, patient identification, hygiene rules, drugs prescribed and administered, triple checking of the originality of drug, generic substitution, time interval between drug administration and meal, control of the use of the drug, beverage with which drug was washed down, entry by the nurse in the decourse, drug administration by a nurse other than the one who prepared the drug, handling of the mobile trolley with drugs. The collected data were recorded in a web database and were reviewed and analysed. The data were described by descriptive statistics.

Results: During the pilot data collection, 694 drugs were administered in 240 nurse-patient contacts on one ward. The most commonly identified medication errors included the following: lack of patient identification by wristband, lack of triple checking of drug or failure to follow hygiene standards. In the 2nd phase of data collection, 915 drug administrations to 76 patients were observed in wards A, B, C, and D during 329 nurse-patient encounters. The most frequently identified errors were: lack of complete identification of the patient (317 cases of contacts, 96,4 % of contacts), failure to follow hygiene standards (631 cases of drug administration, 69,0 % of administrations), lack of control of drug use by the nurse (704 cases of drug administration, 76,9 % of administrations). Within the standard parameters (correct drug, correct patient, correct strength, dosage form, administration in correct relation to food, no drug omission, no extra drug administration), at least one error was observed in 111 (12,1 %) cases of administration, i.e. at least one error was observed in 38 out of 76 total patients observed.

Conclusion: Based on the information found, the frequency of each type of error was evaluated. The findings will be presented to the hospital management and will serve as a basis for interventions directed especially to the medical staff.

Keywords: medication errors, drug administration, nurse, health care facility.