

# THE RESEARCH OF CLASSIFICATION OF MEDICATION ERRORS AN INTERNATIONALLY ESTABLISHED PRACTICE AND UKRAINE

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**Introduction.** A medication error is "any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems, including prescribing; order communication; product labeling, packaging, and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use." In order to determine the causes of and effective preventing medications errors, it is important to study their classification.

**Aim.** Considering the above objective of the research is the study approaches to classification of medications errors an international established practice and Ukraine.

**Materials and methods.** In the study, we analyzed scientific articles and guidelines of international organizations on issues definitions and classifications of medication errors.

**Results and discussion.** As a result of studying the international experience found that today there is no single classification system. One of the main criteria and approach to the systematization of medications errors is the ways in which errors occur. However, according to this criterion also cannot give a single classification. We were allocated following medication errors according to various scientific sources (Table 1).

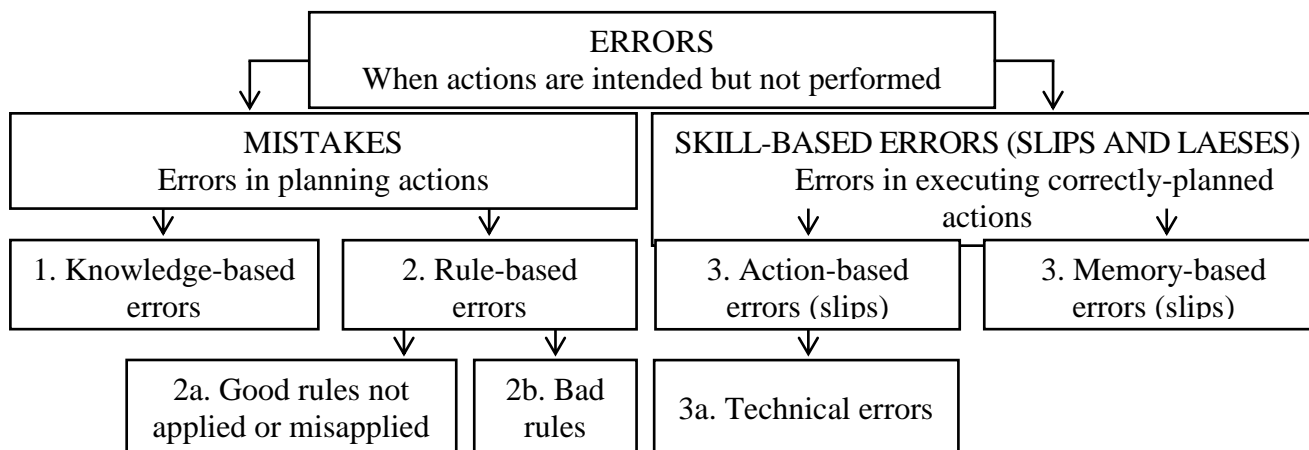
**Table 1**

The main types of medication errors according to ways in which errors occur

Types of errors	Definition
Dosage errors	Medication administered in doses greater or smaller that what had been prescribed
Time errors	Medication administered to patient in an time different from that which had been prescribed or predetermined
Unauthorized	Administering medication that has not been prescribed be the physician
Technique errors	Medication incorrectly formulated or manipulated before administering or using inappropriate procedures or techniques to administer of medication
Administration route errors	Administering medications using a route different from what had been prescribed
Extra doses	Administering and extra dose to what had been prescribed or a medication that had been suspended
Prescription errors	Incorrect selection of the medication, dosage, presentation, administration route, infusion speed, inadequate use instructions by physician and not registering a verbal prescription
Omissions	Professional's mistake to not administer the medication to the patient

Wrong patient	Administering the medication to the wrong patient
Presentation errors	Administering medication in a way different from what had been prescribed

At the same in the opinion of Professor Jeffrey K. Aronson, there is another approach to classification based on a psychological theory, that, from his point view, is to be preferred, as it explains events rather than merely describing them. Its disadvantage is that it concentrates on human rather than systems sources of errors. The classification of medication errors based on a psychological approach is presented on Fig. 1.



**Fig. 1.** The classification based of medication errors based on a psychological approach

It should be noted that, the pharmacovigilance system used other classifications of medications errors and their combinations for research, collection of statistics

Unfortunately, in Ukraine, it is impossible to conduct a classification of medication errors, as there is no relevant definition and national pharmacovigilance system only includes data on adverse drugs reaction. However, international experience shows differentiation concepts “medications errors” and “adverse drug reaction” that is included in their pharmacovigilance system. Issues of relationship between medication errors and adverse drug events are the subject of study of American and European scientists. In our opinion, this subject is topical for Ukraine, given the Eurointegration processes and the reform of the domestic health care system.

**Conclusions.** According to the study definition of medication error and the main approaches to the classification established that today the term is not used in Ukraine. Most often of the National pharmacovigilance system applies the term "adverse drug reaction". Regarding the classification of medications errors, can be argued that today based on the study of international experience, there are several approaches to the classification of medications errors, the most common of them is the classification according to methods ways in which errors occur and psychological approach, proposed by Professor Jeffrey K. Aronson. Term “medication error” is not used in the Ukrainian health care system and pharmacovigilance that is not in accordance with global trends.