

Medication errors, their perception, analysis, and proposal of solutions in a public hospital

H. Komjáthy¹, V. Gogolová², K. Tóthová¹, D. Tárnoková¹, K. Hajtmanová¹, A. Horváthová¹, Cs. Gálová¹, Ľ. Masaryková³
¹Hospital AGEL Komárno, Hospital Pharmacy, Komárno, Slovakia, hajnalka.komjathy@agel.sk, ²EXPIRO, Nové Zámky, Slovakia, ³Faculty of Pharmacy, Comenius University Bratislava, Slovakia

The “seven rights” (the right patient, right medicine, right dose, right route, right time, right information and right documentation) should be fulfilled in all medicines-related activities in the hospital.

A medication error is a mistake in the use of a medicine that can be harmful for a patient. Medication errors can increase hospitalization costs and prolong hospital stays. Whereas the medication errors are preventable, it is important to identify the most vulnerable steps .

Aim: The aim of our work was to analyze the perception of medication errors for parenteral drugs by healthcare professionals in our hospital. Subsequently, to find the role of hospital pharmacists in the process of eliminating medication errors. Furthermore, to identify the medicines in which a medication error can occur most often.

Materials and methods: Retrospective, observational study in a public hospital from August 2021 to December 2021. The study was conducted using questionnaires administered by hospital pharmacists filled by healthcare professionals (doctors and nurses). The questions focused on medication errors, their causes, and their future solutions.

Results: 47 doctors and 72 nurses from the different departments participated in the survey (Fig. 1 and Fig. 2).

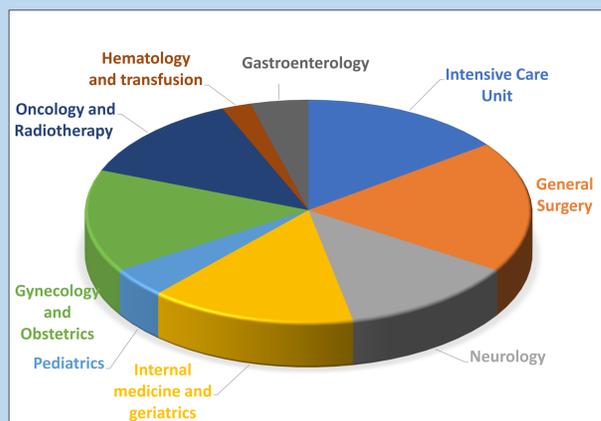


Figure 1.: Doctors by specialty in the survey

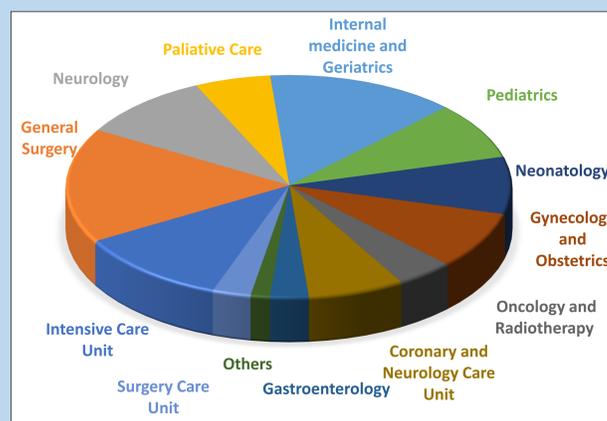


Figure 2.: Nurses by specialty in the survey

72% doctors and 46% nurses encountered medication errors.

Increased workload (87% doctors, 79% nurses) and unconcern or malpractice (61% doctors, 47% nurses) were identified as the most common causes. (Fig. 3) The most frequently observed medication errors of parenteral drugs occurred during the process of prescription (75% doctors, 54% nurses) and administration (68% doctors, 50% nurses). (Fig. 4)

While doctors most often consult with their colleagues (78%) or look for in the literature (55%), nurses consult with doctors (81%) when solving problems concerning to parenteral drugs. (Fig. 5)

On the other hand, up to 49% of doctors also approached the hospital pharmacist, in the case of nurses it was only 22%.

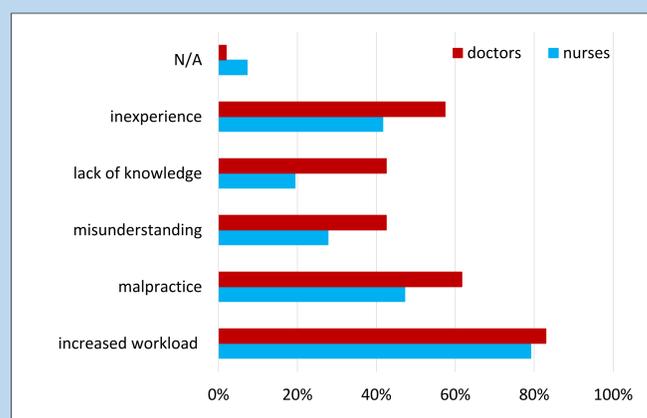


Figure 3.: The reasons of medical errors

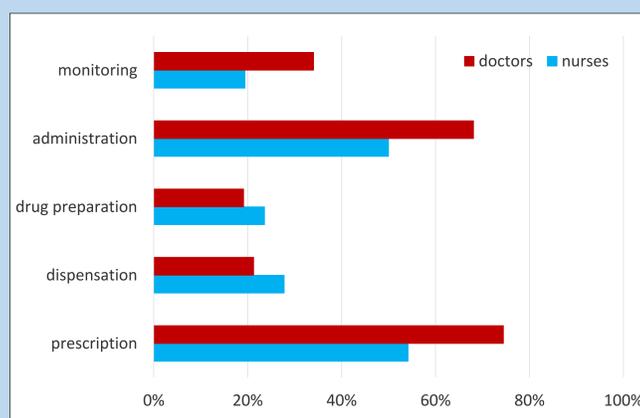


Figure 4.: The types of medical errors

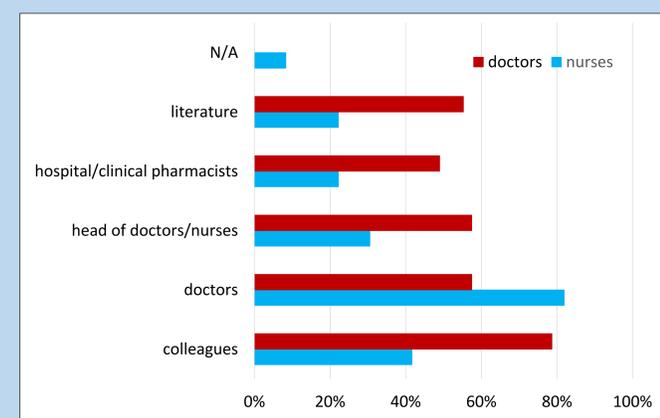


Figure 5.: The solving of medical errors

More than 87% of doctors and 76% of nurses would welcome lectures and training from pharmacists focused on the correct administration and prescription of parenteral drugs.

Conclusion and relevance

Our results confirm the literature data, which say that the most common medication errors occur during prescribing and administering drugs. Hospital pharmacists with their knowledge can significantly contribute to the elimination of medication errors and increase the safety of hospitalized patients.

