

IMPACT OF ROBOTIC DISPENSING SYSTEMS ON MEDICATION ERRORS IN TELEPHARMACY PROCEDURE: A COMPARATIVE ANALYSIS

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Background and importance. Telepharmacy services rapidly expanded during the COVID-19 pandemic. As telepharmacy grew, so did concerns about medication errors (ME). In our hospital, medication was prepared manually until a robotic dispensing system was installed in May 2024, transforming it into a semi-automatic process.

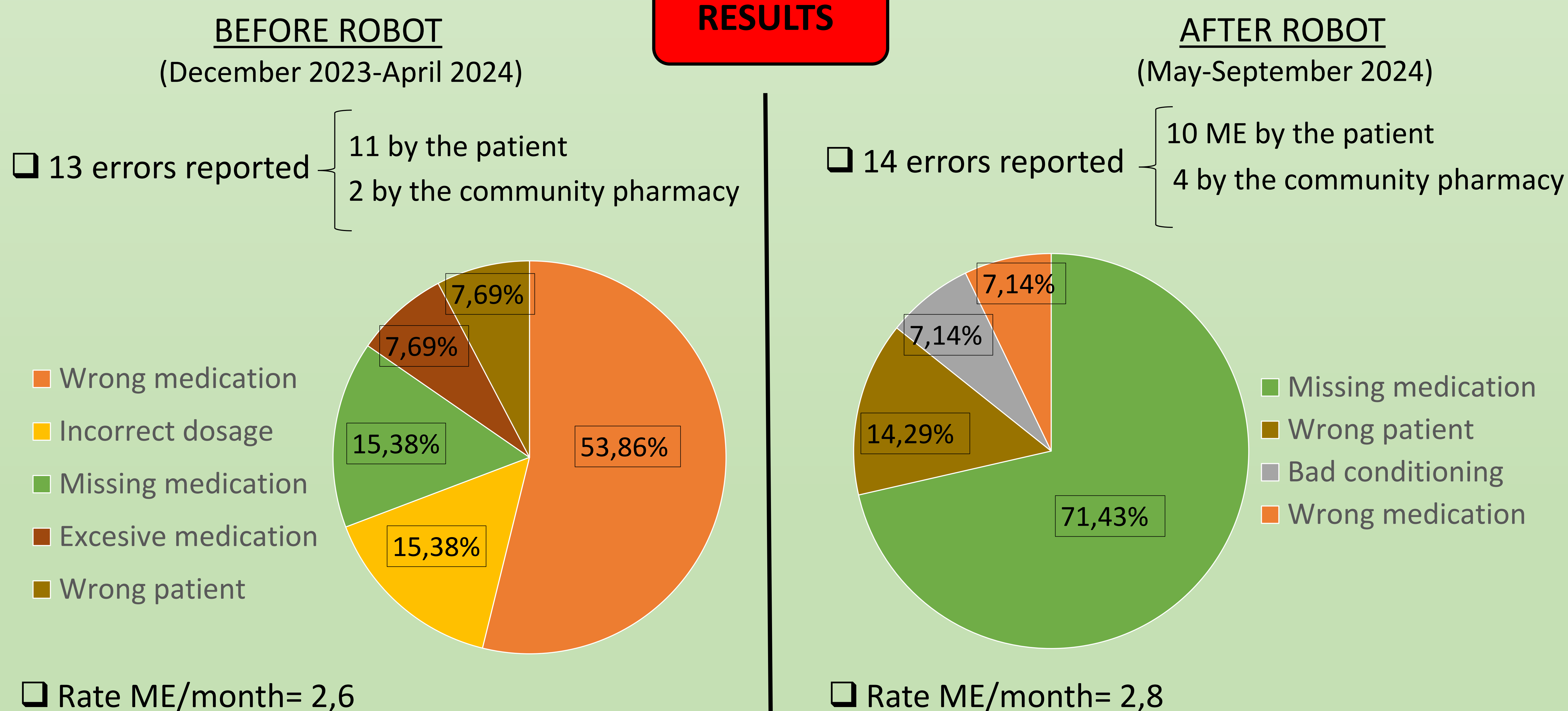
Aim and Objectives

Compare, identify and quantify medication errors before and after implementing a robotic dispensing system.

Material and methods

- Observational, descriptive and retrospective study carried out in the area of telepharmacy in a tertiary hospital during two distinct periods: before the robotic system was introduced (December 2023-April 2024) and after its implementation (May-September 2024).
- ME were collected in a local database.
- Collected data: date, patient data, shipping codes, destination community pharmacy, type of error and organism who reported the error.

RESULTS



Conclusions

The robotic dispensing system altered the types of errors but it did not reduce the total number of errors. Incorrect dosages and wrong medications decreased, but missing medication surged after the robot's implementation. Although the committed errors did not affect the patient safety as if they occurred in the pre-robot period, continuous monitoring and optimization are essential to fully benefit from robotic dispensing systems.

