



# The impact of clinical pharmacist driven interventions on patient safety in hospitalised patients: preliminary results of a point prevalence study

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## OBJECTIVE

To identify potential drug related problems after implementation of hospital wide pharmacists driven medication reviews

## CONCLUSION

- Structured medication reviews by clinical pharmacists, besides using CDSSs, contribute to detection and resolution of DRPs, mainly by reducing overtreatment.
- A hospital-wide integration of clinical pharmacists as part of the multidisciplinary team can improve medication safety and optimize pharmaceutical care.

## RESULTS



**6/16 wards were included**



**250 medication reviews**



**417 potential drug related problems (pDRP)**

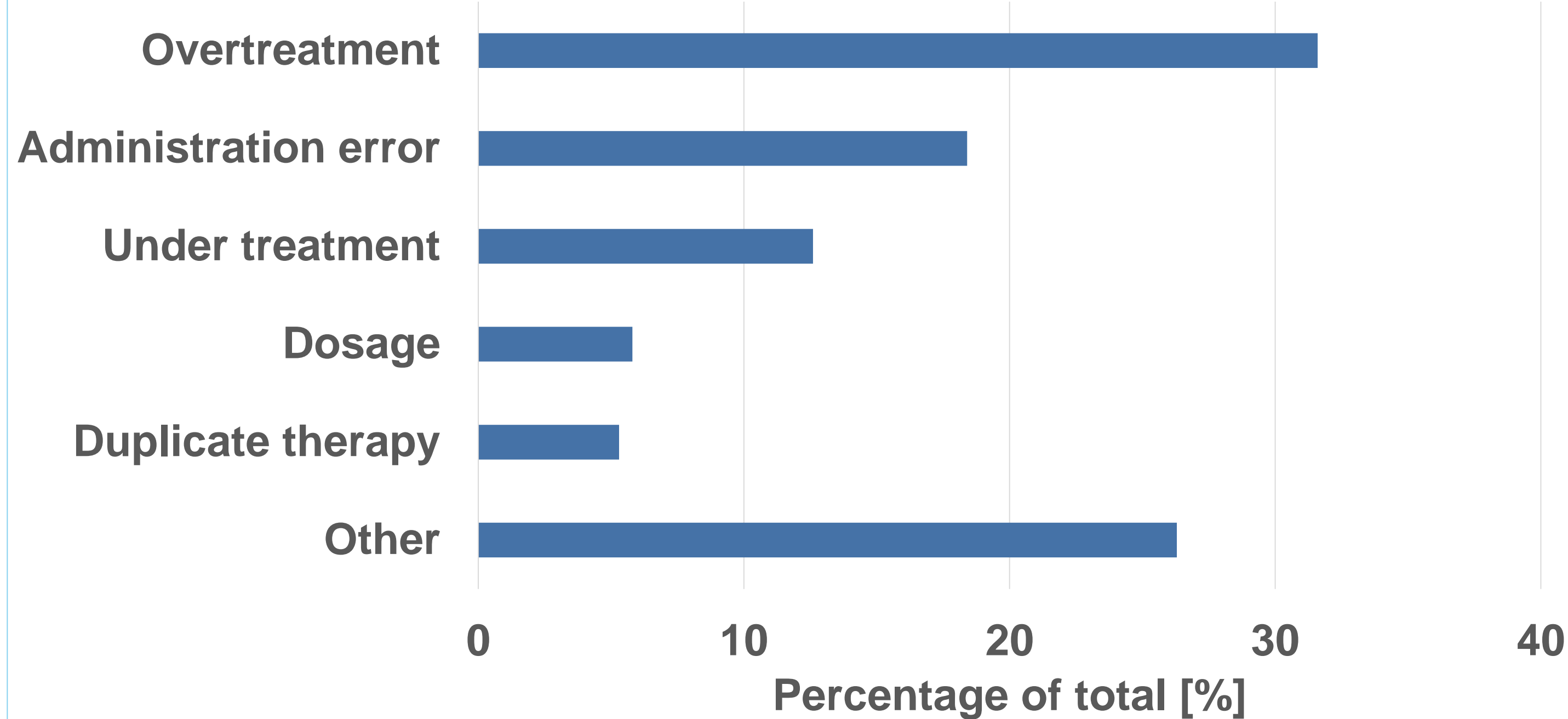


**In 60.4% of the reviews a pDRP was detected**

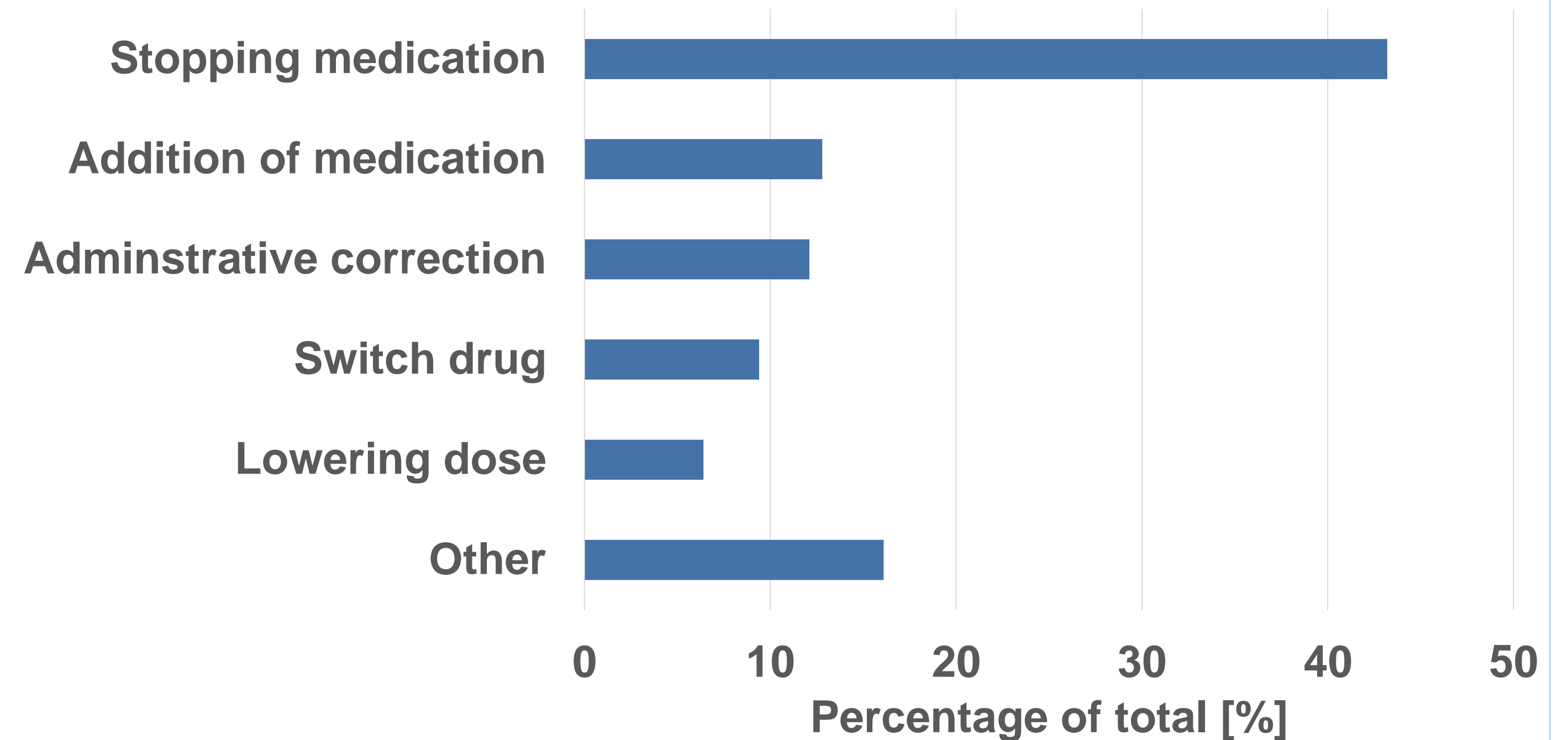


**8.6 minutes per review (range 2-30 minutes)**

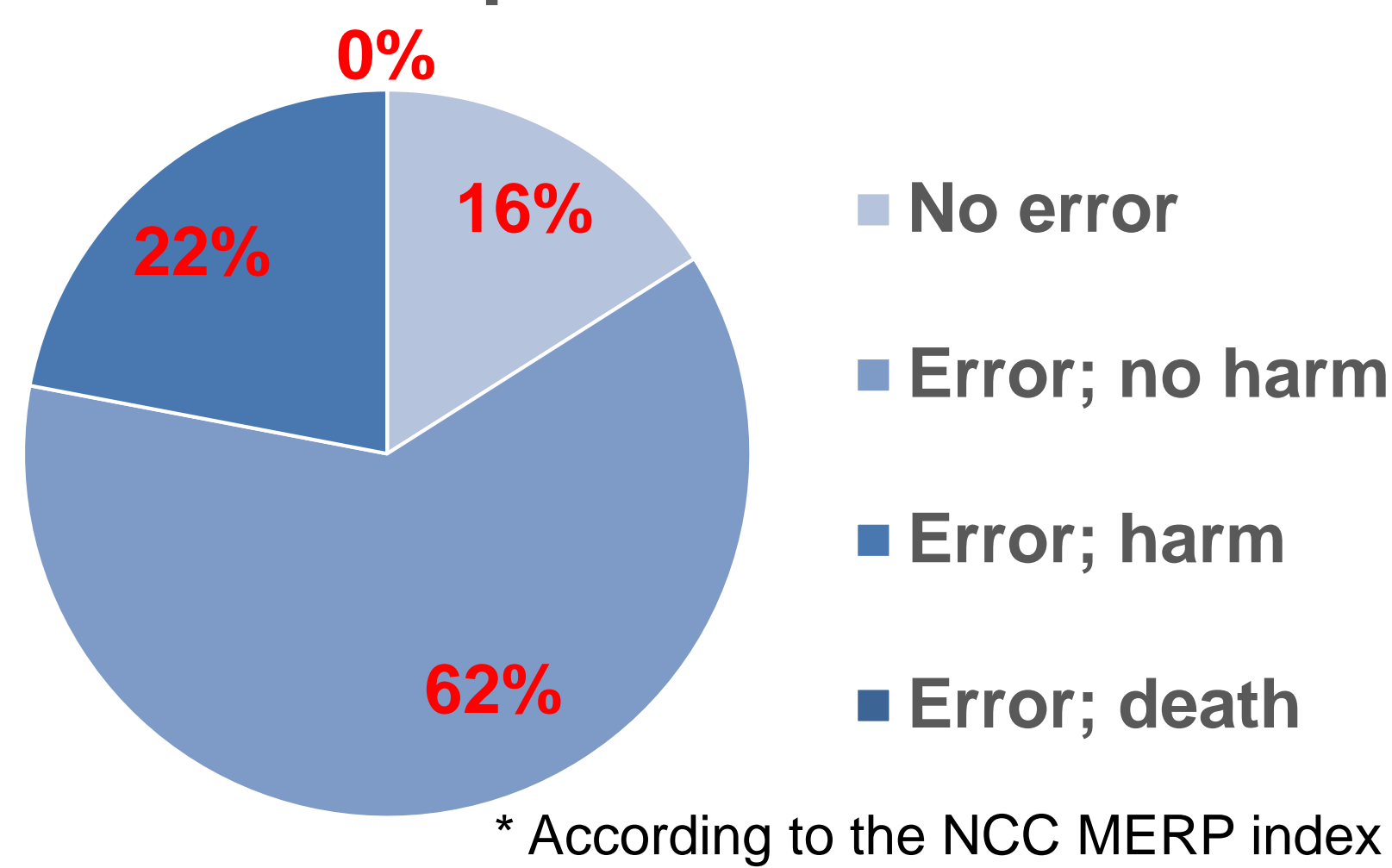
Type of potential drug related problem



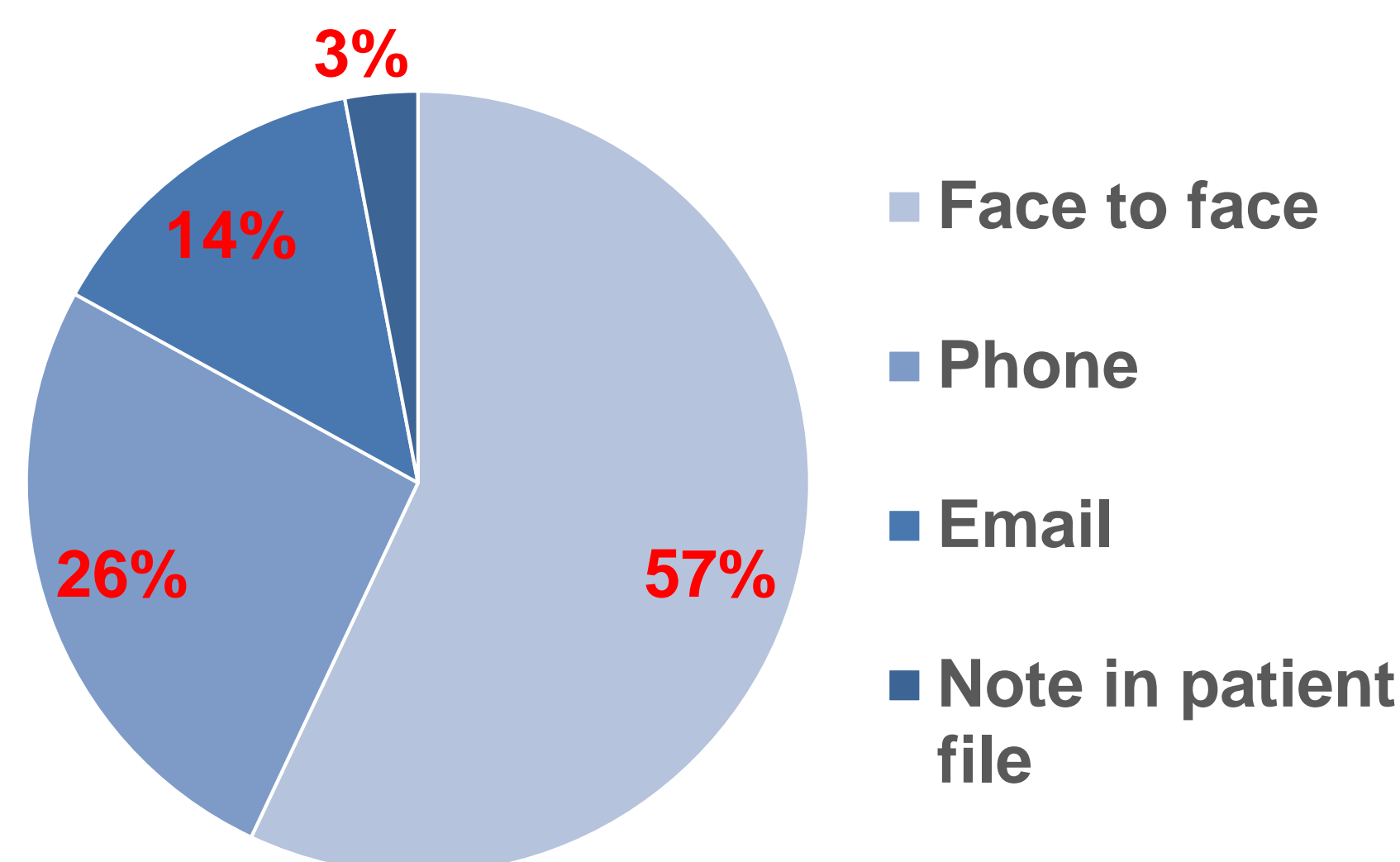
Type of advice



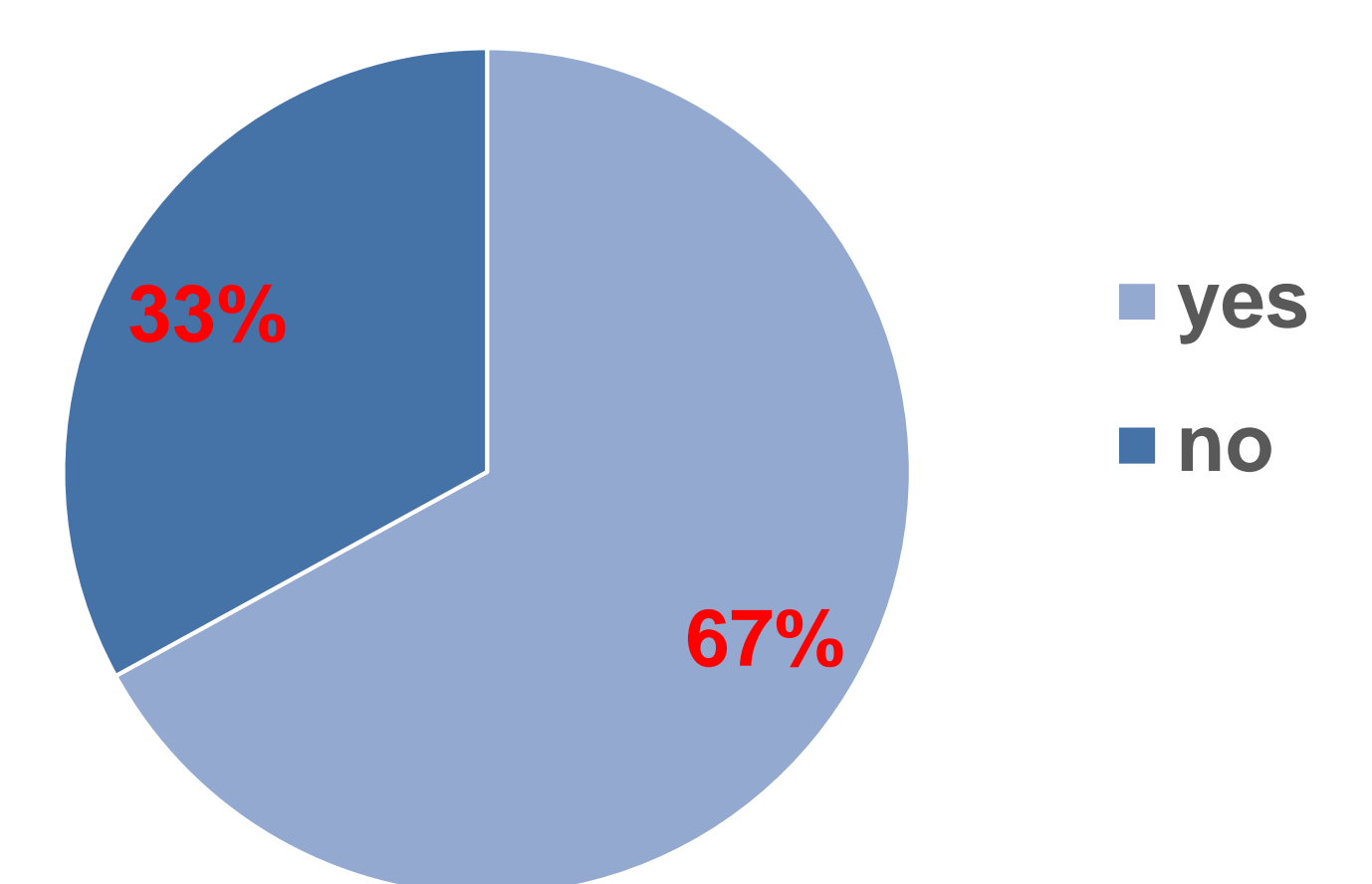
Potential consequences of pDRPs\*



Communication of intervention



Intervention with follow up <24 hours



## BACKGROUND

- Hospitalised patients are at risk for medications errors.
- Traditionally hospital pharmacists use clinical decision support systems (CDSSs) and clinical rules in order to prevent medication-related problems.



- It has been shown that the involvement of a clinical pharmacist integrated in the medical team on the ward has a beneficial effect on the reduction of drug-related problems. Therefore, there is a shift from the traditional way of practice to a clinical pharmacist on the ward. However, the impact of hospital-wide integration of clinical pharmacists on patient safety is not clear.



## MATERIAL AND METHODS

An observational point prevalence study. During 5 consecutive working days pDRPs (on top of the interventions based on clinical rules or CDSSs) were registered.

**Setting:** clinical pharmacists work on every ward and are performing medication reviews

**Inclusion:** Patients admitted to the Erasmus University Medical Center for more than 24 hours

**Recorded endpoints:** type of intervention, reason for intervention, severity of the underlying drug-related problem (using the NCC MERP<sup>1</sup> index scale), proportion of interventions accepted by the physician, communication route and time investment.

## REFERENCES

1. Hartwig, S.C., Denger, S.D., & Schneider, P.J. (1991) Severity-indexed, incident report-based medication error-reporting program. Am J Hosp Pharm, 48. 2611-2616



<https://www.erasmusmc.nl/25-4CPS-215>