

AN INTEGRATED PHARMACIST-LED MEDICATION REVIEW SERVICE FOR ELECTIVE SURGERY PATIENTS AT THE PRE-ANAESTHESIA OUTPATIENT CLINIC

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BACKGROUND

Drug related problems (DRPs) (e.g. untreated indication, drug-drug interactions (DDIs), and contraindicated medicines) significantly contribute to patient harm. Especially in surgical departments, DRPs often represent a significant threat to patient safety. Therefore, an integrated pharmacist-led medication review service was initiated at the pre-anaesthesia outpatient clinic of a 1700-bed tertiary care centre.

AIM AND OBJECTIVES

The aim was to evaluate the impact of medication reviews prior to elective surgery quantitatively and qualitatively, by describing DRPs, pharmaceutical interventions and their acceptance rate.

MATERIAL AND METHODS

During the 5-month study period, patients undergoing elective surgery were prioritized by age and anaesthesia risk score, after their pre-operative evaluation. Their medication regimens and further relevant data (e.g. lab values, comorbidities) were reviewed. In case of inconsistencies, patients were called to amend and verify their current regimens. Identified DRPs and corresponding interventions were suggested in written form to the respective surgical department. A follow-up of interventions was performed by retrospective analysis of patients' discharge letters.

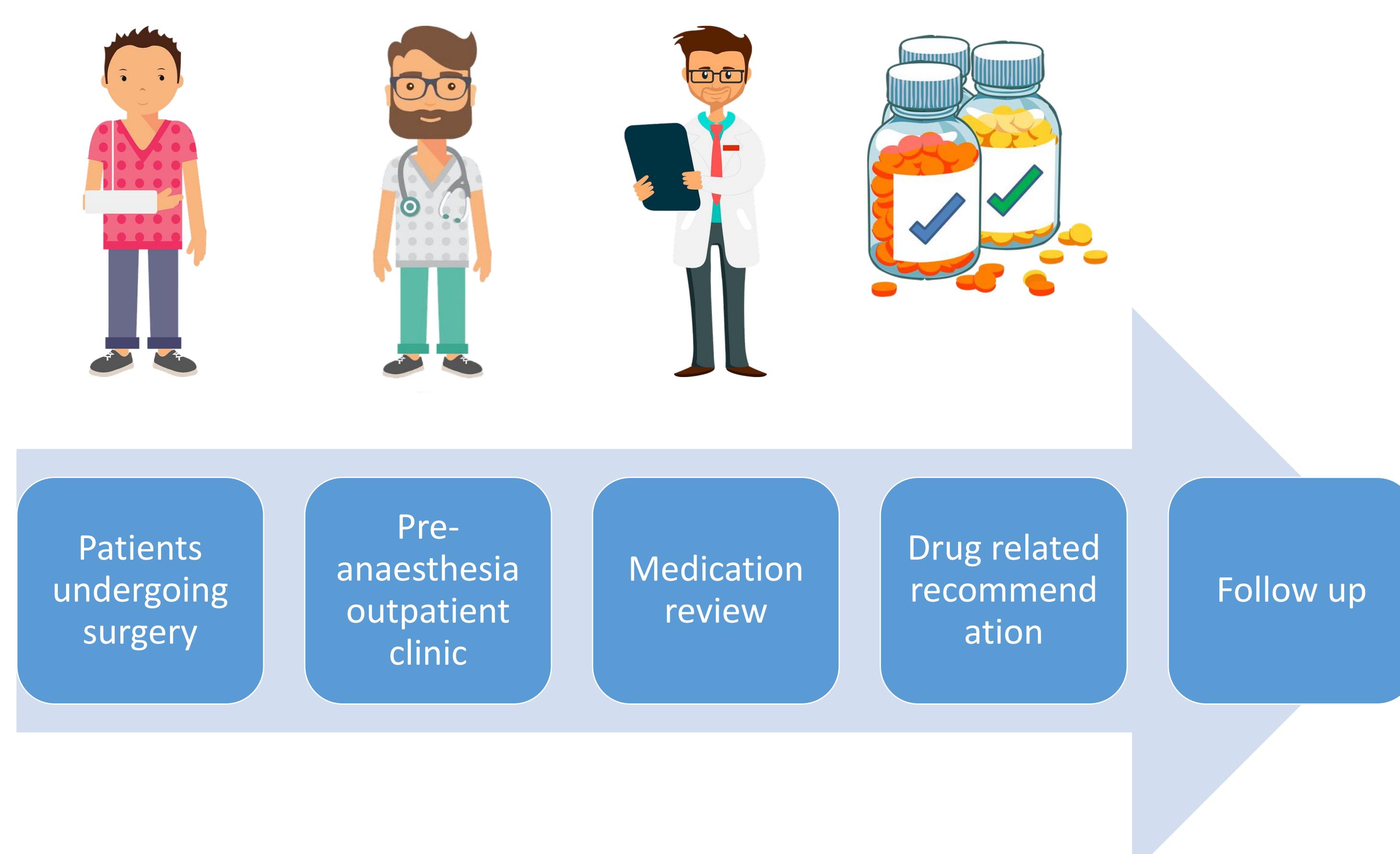


Figure 1. Pharmacist-led medication review service process

RESULTS

Medication reviews were performed in 1.281 patients (51% women, 64 ± 18 years of age). A total of 1.095 DRPs were identified in 700 (54,6%) patients, accounting for an average of 1,6 DRPs per patient. The three most common DRPs, beside the need for specific medication information (43,1%), were:

- potential DDIs (11,3%),
- non-conformance with therapeutic guidelines (8,9%), and
- untreated indications (8,8%).

The three most common interventions, beside the provision of medication-related information (49,7%), were:

- the recommendation of additional medicines (11,1%)
- patient monitoring (10%), and
- discontinuation of medicines (9,0%).

52% of interventions were accepted, while a high proportion of interventions lost to follow-up is evident.

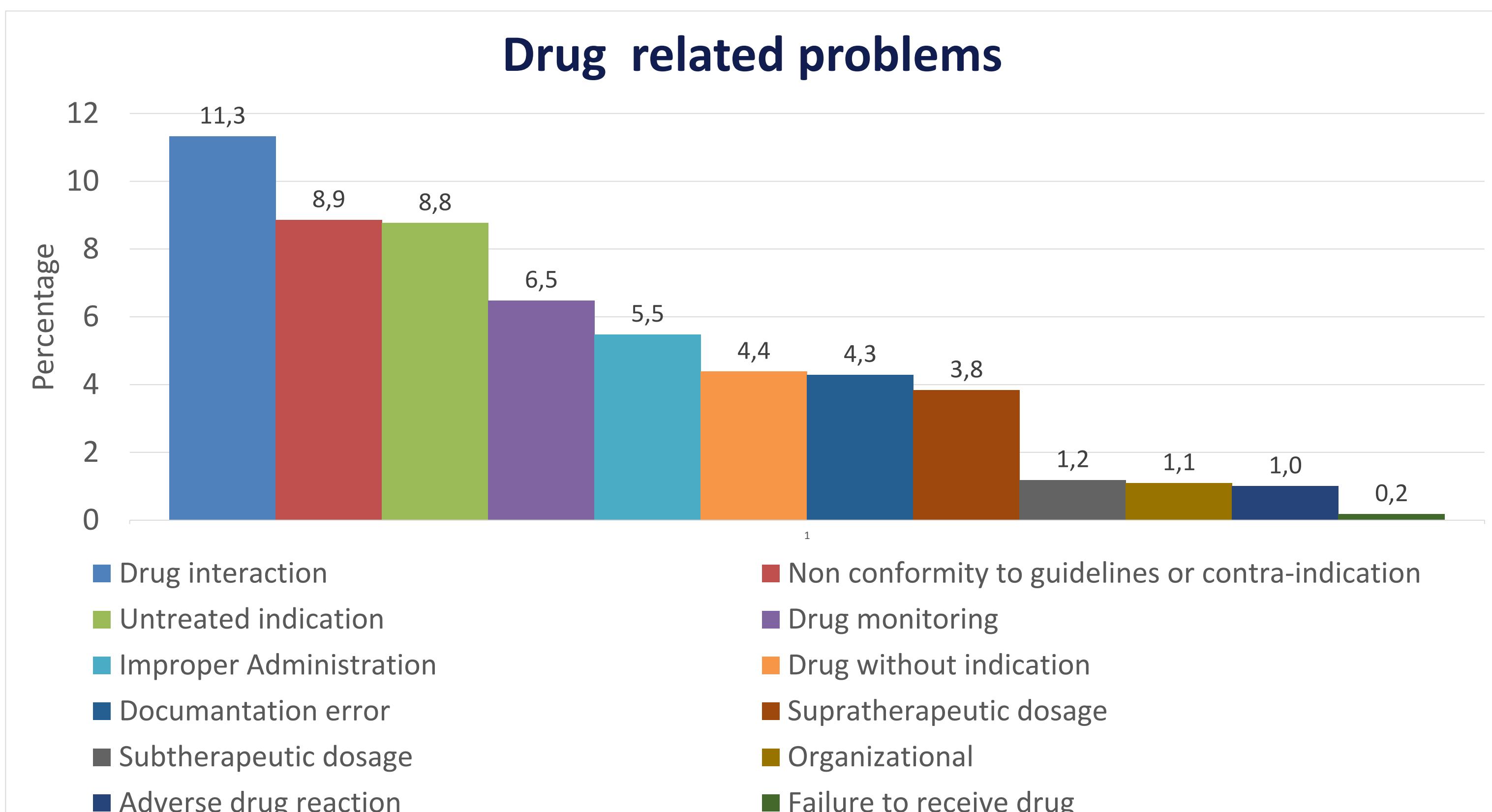


Figure 2. Number of detected drug related problems (%)

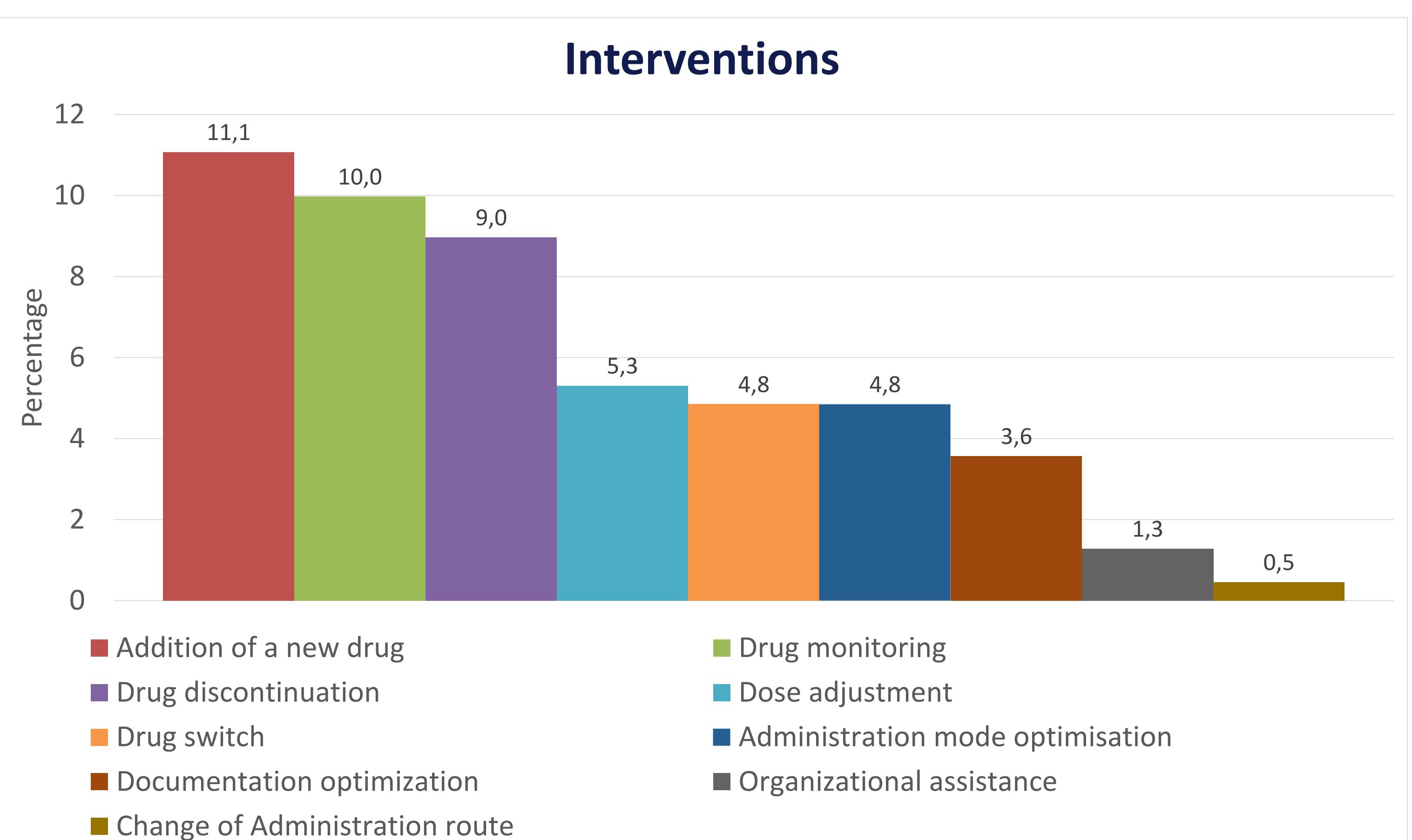


Figure 3. Number of Interventions performed (%)

CONCLUSION AND RELEVANCE

Study results showed that pharmacist-led medication reviews prior to surgery significantly contributed to the prevention of DRPs. Inappropriate and incomplete information in the medical record was commonly encountered as a barrier to the interventions. The moderate acceptance rate needs to be analysed further (e.g. acceptance rate per intervention categories) and strategies to optimize approval of recommendations need to be discussed with different surgery departments.