

## IMPROVING PATIENT SAFETY: THE ROLE OF HOSPITAL PHARMACISTS IN PERIOPERATIVE ANTITHROMBOTIC THERAPY

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### BACKGROUND AND IMPORTANCE

Hospital pharmacists enhance perioperative safety by preventing medication errors and optimizing high-risk drug management. Despite guidelines, deviations persist due to polypharmacy and clinical complexity, highlighting the need for pharmacist involvement in surgical teams.

### AIM AND OBJECTIVES

The primary objective was to evaluate the impact of hospital pharmacists' interventions in reducing surgery cancellations related to medication errors.

Secondary objectives were to describe and quantify interventions across perioperative phases and to identify patient or surgical factors associated with increased risk of errors

### MATERIALS AND METHODS

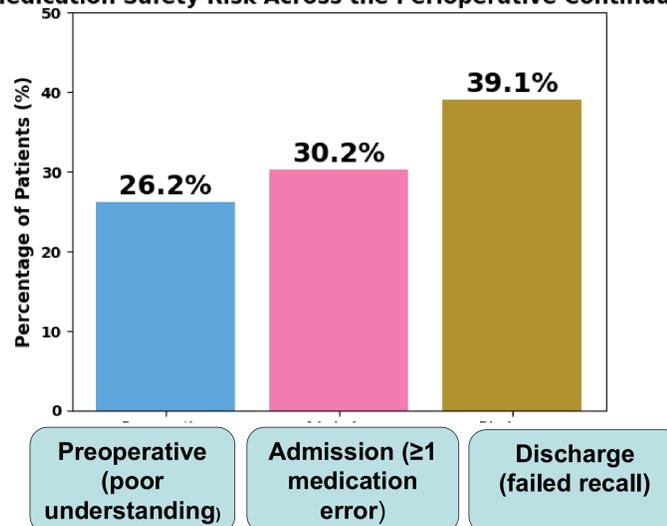
Prospective interventional study in a tertiary-care hospital (2021–2024)  
 Adult surgical inpatients  
 Anticoagulated/antiplatelet-treated patients (excluding aspirin)

Specialized pharmaceutical consultation  
 Prevention of medication errors and documentation of surgical cancellations  
 Sociodemographic, clinical, pharmacological, and surgical variables

Three key time points:  
 Preoperative period  
 Admission  
 Discharge

### RESULTS

Medication Safety Risk Across the Perioperative Continuum



Patient satisfaction was high: **9.8/10**

**Surgery postponed:**  
0.61% pharmacological reason

1,141 patients  
 67.1% male  
 Median age: 74.9 years  
 Median: 9 (6–12) chronic medications → polymedicated

Anticoagulated: 79.1% (apixaban 34.4%)  
 Antiplatelet-treated: 16.1% (clopidogrel 55.9%)

Departments: General Surgery 35.8%, Urology 21.5%, Orthopedic Surgery 18.5%

#### PREOPERATIVE

346 errors prevented; 25.7% involved high-risk drugs

Risk factors: older age, diabetes, polypharmacy, rivaroxaban/edoxaban, longer time from anesthesiology consult to surgery

#### ADMISSION

30.2% had ≥1 medication error → 223 errors prevented (mainly anticoagulants)

Independent predictor: polypharmacy

#### DISCHARGE

39.1% failed to recall recommendations → 255 errors prevented

Risk factors: polypharmacy, higher pain scores; female sex protective

Interventions: adherence 66.6%, coordination 21.2%, emergency referral 6.7%

### CONCLUSION AND RELEVANCE

Pharmacist-led perioperative interventions reduced medication errors and surgery cancellations. Polypharmacy, age, and comorbidities were key risk factors, highlighting the pharmacist's role in optimizing patient safety.

