

ANALYSIS OF MEDICATION ERRORS INVOLVING HIGH-RISK PATIENTS IN THE PERIOPERATIVE SETTING

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OBJECTIVES

Background: The perioperative setting has suggestive differences from any other hospital unit that make it more vulnerable to medication errors (ME):

- 1 Multiples **transitions of care** during their surgical pathway
- 2 Medications are usually **prescribed** and **administered** by the **anesthesiologist**
- 3 A significant proportion of medications used are **high-alert medications**

Objective: Analyze perioperative ME rates in high-risk patients that occurred throughout the use of medication in the surgical process

MATERIALS AND METHODS

High-risk adults

- 1- Anticoagulated therapy
- 2- Dual antiplatelet therapy
- 3- ASA-IV*
- 4- complex chronic patients



- ✓ Preoperative management of chronic medication
- ✓ Prevention of nausea and vomiting
- ✓ Medication reconciliation
- ✓ Antibiotic prophylaxis
- ✓ Pain management
- ✓ Glycemic management
- ✓ Sequential therapy

*American Society of Anesthesiologists physical status

Design: A observational, descriptive, and retrospective study conducted from October to December, 2020 in a 1,300-bed tertiary teaching hospital.

RESULTS

68 patients were included:

- mean age: 71 years
- 66.6% males

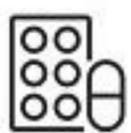


- Patients received an average of 7.8 chronic drugs.
- Most patients underwent general surgery (32,3%) or urology (29,4%) procedures.

WE DETECTED **4.9**
MEDICATION
ERRORS PER
PATIENT



Absence of **sequential therapy** affected 76.5% of patients



Inadequate **management of chronic medications** was in 39.7% of patients



The incidence of ME in **reconciliation** was higher at patient **admission** (41.2%) than at **discharge** (29.4%)



Antibiotic prophylaxis was inadequate in 52.9% of the patients



7.3% patients presented any ME related to **pain management**



3.2% of patients presented inadequate treatment to **prevent nausea and vomiting**



27.9% patients had incorrect **glycemic management**

CONCLUSION

This study revealed a **high incidence** of ME in high-risk patients undergoing major surgery. Strategies to reduce ME in the perioperative setting **should be implemented** in order to improve the quality of surgical care and patient safety in the surgical environment

Pharmacists play a key role in medication errors prevention and they should be engaged in promoting the safe use of medications

