

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

B. Torroba Sanz, F. García Moreno, A. De Lorenzo Pinto, X. García González, A. Ribed Sánchez, A. Giménez Manzorro, M.L. Martín Barbero, S. Ibáñez García, A. Herranz Alonso, M. Sanjurjo Saez

Servicio de Farmacia. Hospital General Universitario Gregorio Marañón. Instituto de Investigación Sanitaria Gregorio Marañón (IISGM). Madrid, España

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

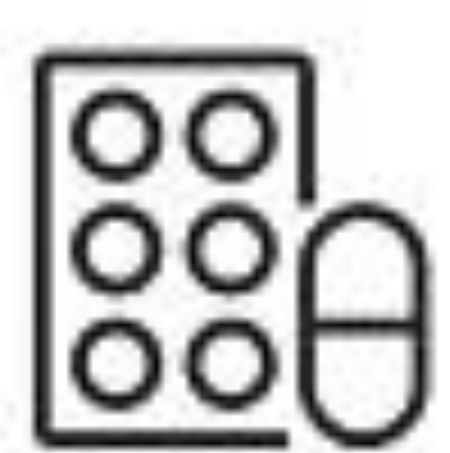


- Patients received an average of 7.8 chronic drugs.
- Most patients underwent general surgery (32,3%) or urology (29,4%) procedures.

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

