POTENTIALLY INAPPROPRIATE MEDICATION FOR ELDERLY HOSPITALISED PATIENTS IN A TRAUMA AND ORTHOPAEDIC SURGERY DEPARTMENT


Background and Importance:
Medication is potentially inappropriate when the risk of adverse effects is greater than the clinical benefit, especially when safer and/or more effective treatment is available.

Aim and Objectives:
To analyze potentially inappropriate prescriptions (PIPs) and potential prescribing omissions (PPOs) in elderly patients hospitalized for trauma and/or orthopedic surgery.

Materials and Methods:

Study design:
- Prospective observational study (15 August 2018 – 15 February 2019)
- Trauma/Orthopedic Surgery Department
- 350-bed general hospital

Inclusion criteria:
- > 65 years
- ≥ 3 chronic medications
- interview with pharmacist for conciliation of home medication at hospital admission.

Binary logistic regression analysis was conducted to identify factors related to PIPs and POPs.

Study variables:
- sex, age, n° comorbidities, n° and type of chronic medications, place of residence (home, or residential/health center [R/HC]), and reason for admission and its type (elective/urgent).

Medications were categorized using the Anatomical Therapeutic Chemical classification system.

STOPP-START criteria were used to detect PIPs and PPOs.

Results:

STUDY POPULATION:
114 PATIENTS:
- 61.4% females
- Mean age: 79.8 ± 7.9 yrs
- 3.2±2.2 comorbidities/patient
- 6.1% in R/HC
- Main reason for admission: hip fracture (45.6%)
- 57.9% of admissions were urgent and due to falls

PPOs (N = 15)
- 13 patients (11.4%)

PIPs (N = 131)
- 72 patients (63.2%)

The number of chronic medications per patient was the sole factor associated with PPI and/or PPO (OR=1.49, [95%CI: 1.17 – 1.89], p=0.001).

Conclusions:
- PPIs are highly prevalent among elderly trauma patients; they are more frequent than PPOs and mainly attributable to polymedication.
- The medications most frequently associated with PPIs were proton-pump inhibitors and benzodiazepines, which can increase the risk of falls and hip fractures.

References: