

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 PPOs.

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:

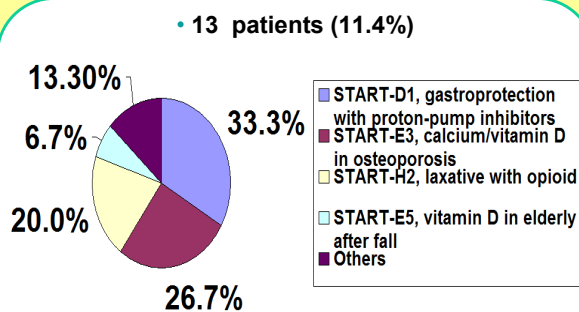
STUDY POPULATION:

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- 114 PATIENTS:**
- 61.4% females
 - Mean age: $79,8 \pm 7,9$ 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

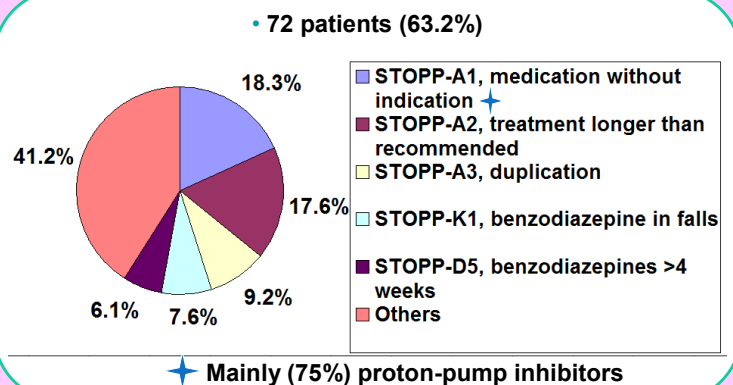
CRHONIC MEDICATIONS (N = 898)

- 7.9 ± 3.6 medications/patient
- 15.8% were a PIP or PPO
- The most frequently implicated anatomic groups:
 - A-“Alimentary tract/metabolism” (24.9%),
 - C-“Cardiovascular” (24.2%)
 - N-“Nervous system” (24.1%).

PPOs (N = 15)



PIPs (N = 131)



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:

Delgado Silveira E, et al. “Improving drug prescribing in the elderly: A new edition of STOPP/START criteria”. *Rev Esp Geriatr Gerontol.* 2015; 50: 89-96

