

Results of pharmaceutical interventions at a hospital emergency department

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BACKGROUND

According to recent studies conducted at Emergency Departments (ED) an important number of adverse events (AE) are due to drug-related problems (DRP). This is the reason that some hospitals incorporate clinical pharmacist to the ED team.

OBJECTIVES

- Analyze pharmaceutical interventions (PI) data conducted in the ED.
- Evaluate the correlation between interventions and patient risk factors.

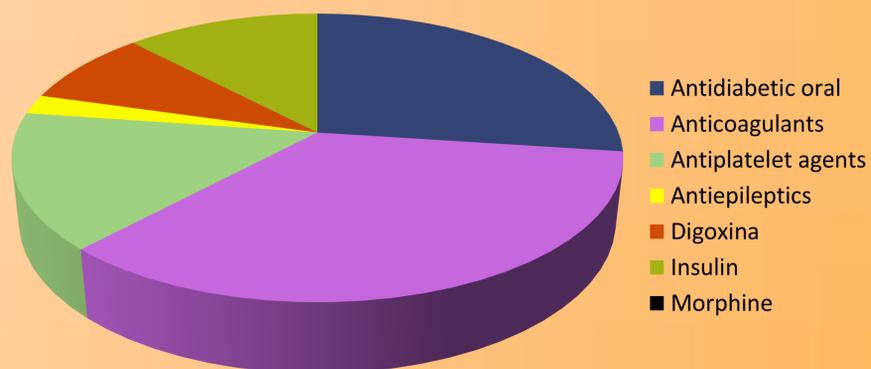
MATERIALS AND METHODS

Prospective interventional trial of 4 month length conducted in ED patients awaiting admission. The activities carried out by the pharmacist were: drug reconciliation, pharmacotherapy reviews, solve questions and provide drug information to medical staff.

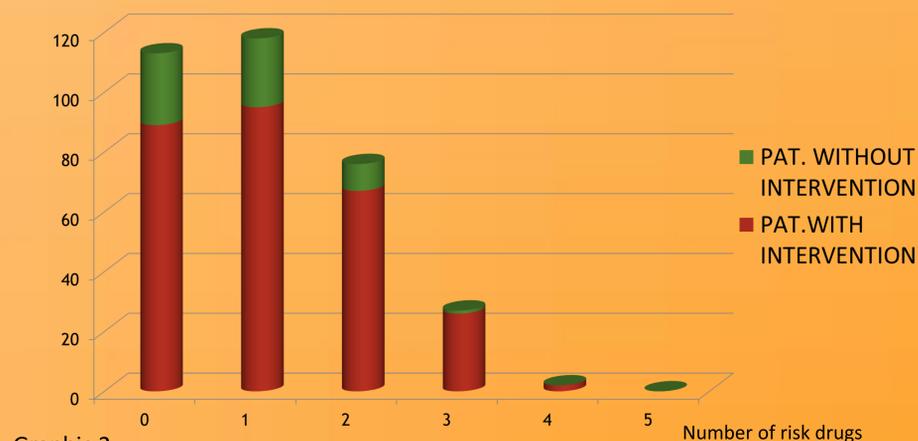
The variables registered were: sex, age, pharmacological treatment including high risk drugs (anticoagulants, antiplatelet agents, antiepileptics, oral antidiabetic, digoxin, insulin, morphine), Charlson Comorbidity Index (CCI) and PI.

RESULTS

336 patients were included (age average 76 years). 52.0 % (175) were men. 79.8 % (268) had a home prescription with ≥ 5 drugs. 85.7% of the patients were performed some PI (827; 10.5 interventions/day), 61.2% of the interventions (506) owed to mistakes of omission. The pharmacological group that more PI propitiated were the anti-hypertensive ones (18.1 %). 79.7 % of the patients receiving < 2 high risk drugs needed PI, whereas 90.5 % of patients with ≥ 2 received PI ($p=0.014$) (graphic 2). Interventions were achieved in 79.3 % of the patients by CCI < 2 , whereas in the patients with CCI ≥ 2 PI were needed in 85.9 % ($p < 0.01$).



Graphic 1. Distribution of patients with drug intervention risk



Graphic 2

CONCLUSIONS

The presence of a clinical pharmacist in the multidisciplinary ED team has been shown to improve patient care, solving reconciliation mistakes.

Patients with CCI ≥ 2 and habitual treatment ≥ 2 high risk drug are patients susceptible to suffer DRP and most likely require PI. The correlation between risk factors studied and PI, allows focus the pharmaceutical monitoring in these patients.