

# ANALYSIS AND EVALUATION OF PHARMACEUTICAL INTERVENTIONS PERFORMED IN THE EMERGENCY DEPARTMENT

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## BACKGROUND AND IMPORTANCE

Emergency Department (ED) has been described as a dynamic and complex environment vulnerable to medical errors. The clinical pharmacist (CP) has proven to be a key part of the multidisciplinary team for improving the quality and safety of patient care.

Services provided by pharmacists in the ED included traditional clinical pharmacy services, responding to medical emergencies, providing consultations on medication issues and identifying drug related problems

## OBJECTIVE



To analyze and evaluate the CP's interventions in the ED.

## MATERIAL AND METHODS:

- **Design:** descriptive prospective study of the CP's interventions performed in a 2-month-work rotation period in the ED
  - **Place:** conducted in a 400-bed hospital that serves a population of 250.000 inhabitants
  - **Variables:** type of pharmaceutical intervention, pathology associated to IP, proactive intervention (yes/no) and acceptance of the intervention (yes/no)
- A database was designed to record the interventions that were carried out during the studied period and data was processed with Microsoft-Excel®.



## RESULTS:

### 308 INTERVENTIONS WERE RECORDED

- 1) Prescription suggestion (n=2).
- 2) Adequacy of treatment (n=46):
  - Dose/ pharmaceutical presentation adjustments (n=20)
  - Antibiotic therapy (n=26).
- 3) Prevention of adverse reactions (n=11):
  - Contraindication (n=1)
  - Inappropriate doses (n=2)
  - Duplications (n=3)
  - Interactions (n=2)
  - Analytical monitoring recommendation (n=3)
- 4) Support tasks (n=244):
  - Medication reconciliation (n=242)
  - Drug information to the physician (n=2)

MAIN PATHOLOGIES INVOLVED	
Psychiatric	18.8%
Cardiovascular:	16.5%
- Hypertension	9.8%
- Fibrillation/ Heart-failure	6.7%
Endocrine:	11.2%
- Diabetes	5.8%
- Dyslipidemia	3.6%
- Hypothyroidism	1.8%
Respiratory	10.3%
Gastrointestinal	5.4%
Non-classified pain	5.4%
Glaucoma	4%
Onco-hematological	2.7%
Neurological	2.2%
Dermatological	1.8%

90.5% were proactive interventions and 99% of them were accepted by the physician



## CONCLUSION:

The number of CP's interventions carried out during the study period is optimal, when compared with data from other studies carried out. The major part of the CP interventions were based on medication reconciliation. In a very high percentage, the pharmacist works proactively, and his interventions are almost always accepted. This study demonstrates the role and importance of the pharmacist incorporated into the ED multidisciplinary team.