

## 4CPS-121 - CLINICAL PHARMACIST INTERVENTIONS IN THE EMERGENCY DEPARTMENT AND THEIR IMPACT ON PREVENTABLE ADVERSE DRUG EVENTS

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### Background and importance

Pharmacists' therapeutic interventions (PTIs) have always been considered a valuable input to other health care providers during the patient care process. In emergency departments (ED), clinical pharmacists can play an important part in the identification and reduction of preventable adverse drug events ADEs in the ED.

### Aim and objectives

- Evaluate the type and frequency of a clinical pharmacist's interventions (PTI) and their effect on preventable ADEs
- Analyze the acceptance of PTI when reviewing the prescription in a single academic hospital.

### Material and methods

Retrospective observational study of all PTIs completed on ED lodged (inpatient) adult ( $\geq 16$  years old) prescriptions.



The study includes all interventions carried out during **4 months** in an academic hospital of 400 beds.

The National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) Index for Categorising Medication Errors Algorithm was used to categorise interventions. An adverse drug event (ADE) has been defined as 'any harm associated with any dose of a drug'

### Results

A total of **645 PTI** was collected and **607 patients** required at least one **intervention** mean average of  $1.23 \pm 1.89$  PTI per patient.

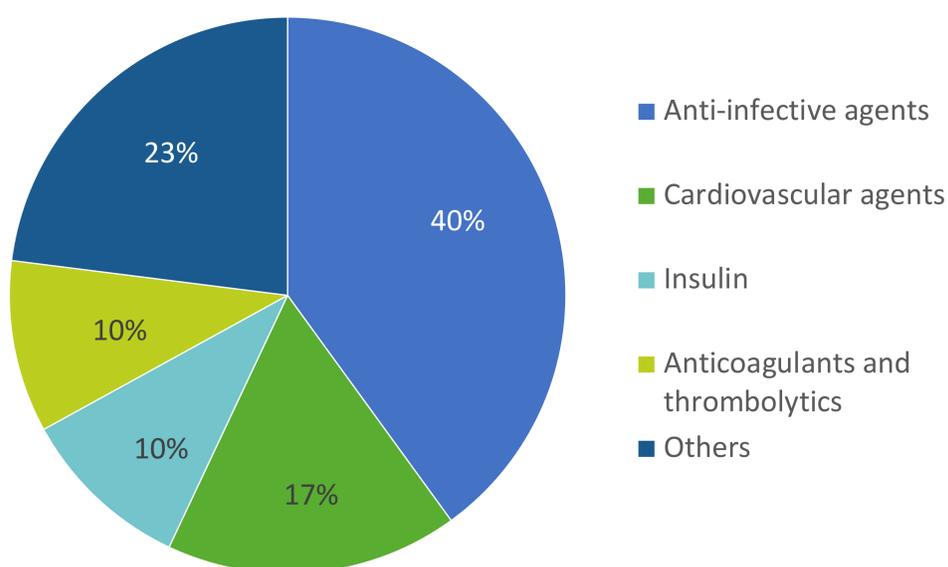
- Mean age was  $77 \pm 10.4$  years
- 69% were men



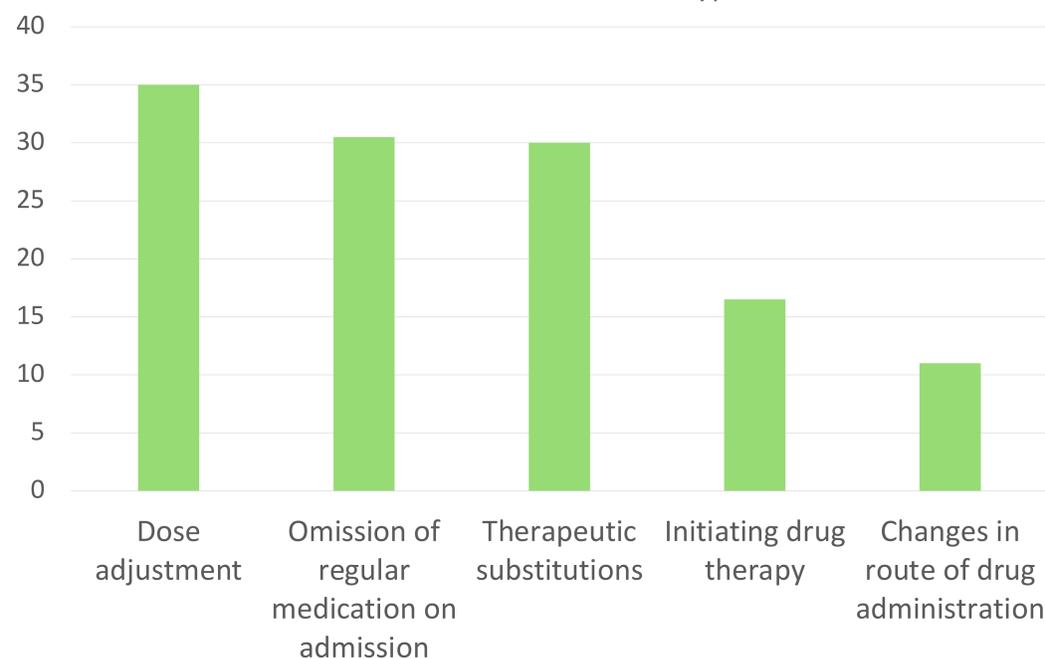
The **acceptance rate** was **90.4%**, all of them were conducted face-to-face with physician.



Medications involved in PTI by therapeutic class



Predominant intervention type



Of overall PTI, 42% were categorized as potential ADE

**Improper Dose (56%)  
Frequency & Route(23%)**



The most common outcomes for interventions was:

- ✓ Reduction of preventable ADEs (45%)
- ✓ Optimization of the therapeutic effects of the drugs that were administered (29%)

### Conclusions

- ✓ This study demonstrated that adding EM pharmacists to the ED had shown to increase identification, interception, and correction of many medication errors and also that PTIs were well received by ED physicians.
- ✓ However, further study is needed to demonstrate the clinical pharmacist's contribution to the improvement of clinical and economic outcomes more comprehensively.