

# CLINICAL PHARMACIST EFFECTIVENESS IN HOSPITALIZED PATIENTS: ANALYSIS OF THE INTERVENTION RECORD IN A SECONDARY ACUTE HOSPITAL

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## Background and Importance

Clinical pharmacist activity is fundamental in the hospitalized patient, since it prevents medication errors, participates in the selection of medication and facilitates medication compliance in terms of dispensing and administration.

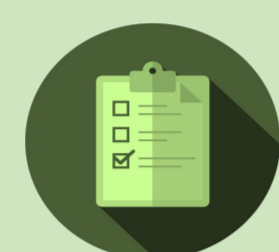
## Aim and Objectives

The main objective is to analyze the profile of the clinical pharmacist's interventions in patients hospitalized in a second level hospital. Therefore, clinical needs can be discovered and preventive actions promoted.

## Material and methods

✔ Adult and pediatric acute hospitalized patients

### Variables collected



✔ Interventional

✔ Multidisciplinary

✔ Retrospective

✔ Intervention/day ratio

✔ Types and reasons for intervention

✔ Medication prevalence and incidences

### Data

Only implemented interventions were recorded. A descriptive analysis was performed using absolute frequencies and percentages, as all the variables were qualitative.



## Results

- 1555 pharmaceutical interventions were recorded
- 12.34 interventions/day and 7.05 implemented interventions /day/100 patients (175 hospital beds)



Most prevalent medications interventions (shown more than 15)	
Non-guide oral medications	183
Intravenous dexketoprofen	33
Intravenous acetaminophen	31
Piperacillin-tazobactam	31
Oral allopurinol	30
Non-guide inhaled medications	25
Intravenous potassium chloride	24
Intravenous metamizole	22
Intravenous amoxicillin-clavulanate	16
Enoxaparin	16
Insulin lispro	16

Type of intervention	num.	%
Change medication	384	24,8
Medical order completion	276	17,9
Stop medication	259	16,7
Change dose	153	9,8
Change schedule	136	8,7
Start treatment	131	8,4
Change frequency	91	5,8
Antibiotic group intervention	52	3,3
Pharmacokinetic monitoring	28	1,8
Change administr. via	27	1,7
Maintain treatment	10	0,6
Information request	7	0,5

Intervention reasons (n=1555)	num.	%
Facilitate compliance	258	16,6
Incomplete order	182	11,7
Therapeutic duplication	139	8,9
To promote compliance	114	7,3
Home treatment not prescribed	91	5,9
Overdose	89	5,7
Therapeutic exchange	87	5,6
Allergies not introduced	78	5,1
Other intervention reasons	71	4,5
Excessive duration	70	4,5
More frequent than recommended	66	4,1
Under Dosage	58	3,7
Needs additional treatment	40	2,6
Inaprop. route of administration	27	1,7
Deescalate	26	1,7
Adverse event Prevention	23	1,5
Inappropriate schedule due to interaction	22	1,4
Less frequent than recommended	19	1,2
Error Detection	16	1,1
Increase antibiotic spectrum	16	1,1
Contraindication	16	1,1
Adequacy of antibiotic based on microbiological culture	13	0,8
Pharmacokinetic monitoring	12	0,8
Medication not indicated: unnecessary or ineffective	12	0,8
Insufficient duration	10	0,6

## Conclusions

Tasks carried out by clinical pharmacist are fundamental, they ensure the proper use of medications to maximize their effectiveness, minimize the side effects and prevent medication errors.

Interventions registre is crucial to analyze their type and the quality of the prescription, essential to carry out preventive strategies with a population impact in the most prevalent interventions and thus reduce hospital stays.

Most important strategies implemented were mandatory allergy registration, assisted prescription modification to avoid overdoses (p. e. metamizole, dexketoprofen), expanding the hospital's pharmacotherapeutic guide and improving the database on dose adjustment information in renal failure.