ASSESSING THE QUALITY OF ANTIBIOTIC PRESCRIBING AT DISCHARGE FROM HOSPITAL

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BACKGROUND

Infectious diseases, mainly respiratories, are one of the main reasons for hospital admissions. So, an appropiated antibiotic prescribing at discharge (APD) after these episodes of hospitalization have an important clinical repercussion.

PURPOSE → To assess the quality of APD

METHODS

- Descriptive, observational, retrospective study over 3-months-period (June-August 2010).
- Carried out in an Internal Medicine Short Stay Unit of a 400-bed hospital.
- It included **patients discharged from an interdisciplinary Medication Reconciliation program**.

inf@rma Pharmaceutical Care Program

We reviewed all discharge informs

We selected patients with APD → Data collected

- Demographics: sex, age
- Clinics: allergies, diagnosis
- Antibiogram: sample, microorganism isolated
- APD

Indicators used:

- Adherence to the Primary-Care Pharmacotherapeutical Guide (PCPG)
- Prescription by International Nonproprietary Name (INN)
- Prescription error (PE) rate
- Empirical use

PE rate = [number of PE/ total APD]*100

We considered PE: dose/frequency/duration treatment inadequated/omission or incomplete prescription.

RESULTS

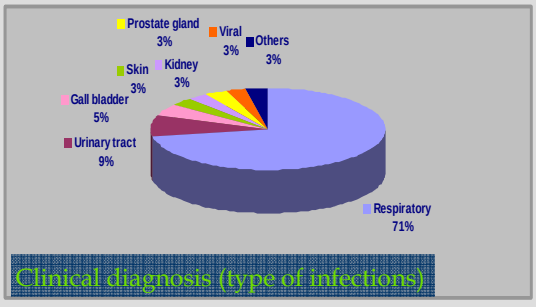
- 85 patients were discharged during the study period → 35 of them were prescribed at least one antibiotic. (30 patients with 1 APD, 5 patients with 2 APD)

41,2% of patiens with APD

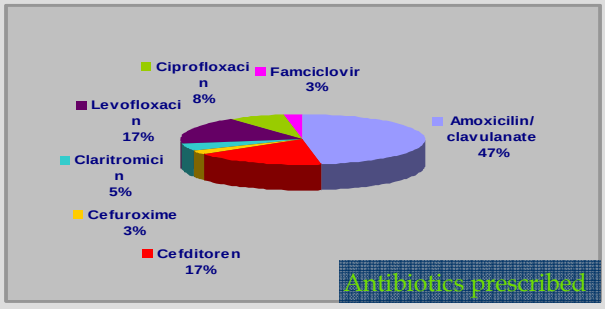
Patient characteristics (%)

Sex: female (46%), male (54%)
Age: 75 (13) years-old

Drug allergies: 22,8%
(half of them antibiotic allergies)



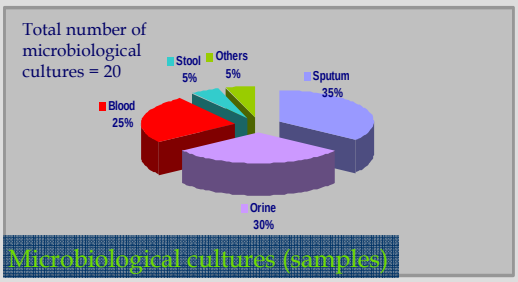
Clinical diagnosis (type of infections)



Antibiotics prescribed

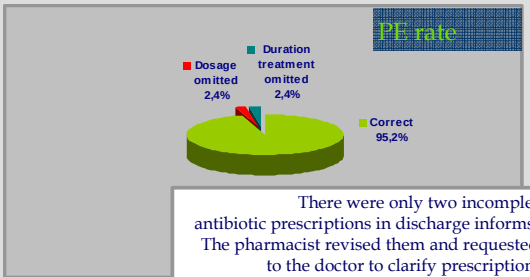
During the hospitalization, only microbiological cultures were assessed in 31,4% of the patients → 55% of microbiological cultures were positive → 15,7% directed (non-empirical) APD

Microorganisms isolated: *Streptococcus viridans (18,2%), Chlamydophila penumoniae (18,2%), Escherichia coli (9,1%), Streptococcus pneumoniae (9,1%), Haemophilus influenzae (9,1%), Candida albicans (9,1%), Aspergillus fumigatus (9,1%), Morganella morganni (9,1%), Neisseria (9,1%)*



Microbiological cultures (samples)

APD indicators	
Adherence to PCPG	64,1%
Prescription by INN	24,4%
PE rate	4,8%
Emprical use	84,3%



There were only two incomplet antibiotic prescriptions in discharge informs. The pharmacist revised them and requested to the doctor to clarify prescription. So, the errors were resolved.

CONCLUSIONS

To review the use of antibiotics at hospital is a tool necessary to assess quality of prescription and to promote a rational drug use.

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