IMPACT OF ANTIBIOTIC PRESCRIBING IN AN EMERGENCY DEPARTMENT ON HOSPITAL STAYS, READMISSION AND MORTALITY

4CPS-241

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BACKGROUND & IMPORTANCE

Antibiotics are widely prescribed in the Emergency Department (ED). Around 30-60% of antibiotic prescriptions in the ED are inappropriate; this fact is associated with an increase in length of hospital stay and entails a public health problem. In this context, ED becomes a key point for antibiotic optimization.

AIM & OBJECTIVES

Primary objective	Secondary objectives
Frequency of inappropriate prescriptions of antibiotic therapy (AT)	Impact in terms of hospital stay increment, readmissions and mortality 30 days after the event

MATERIAL & METHODS

Design

Descriptive

Observational

Retrospective

Multidisciplinary

Study authorized by Hospital Research Commission

Inclusion criterias
Study period

AT prescriptions in the ED the day of study

January - March 2020

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Data taken from 7 cuts of alternate days of 7 continuous weeks

Prescription evaluation

Emergency Medicine
&
Clinical Pharmacist

Center´s Infections Guidelines

Demographic
Comorbidity
Site of infection

Outcome variables

Hospital stay length*
Readmission
Mortality
30 days after the event

* Increased stay was considered when the patient admission was longer than the median days of hospital stay of the study sample

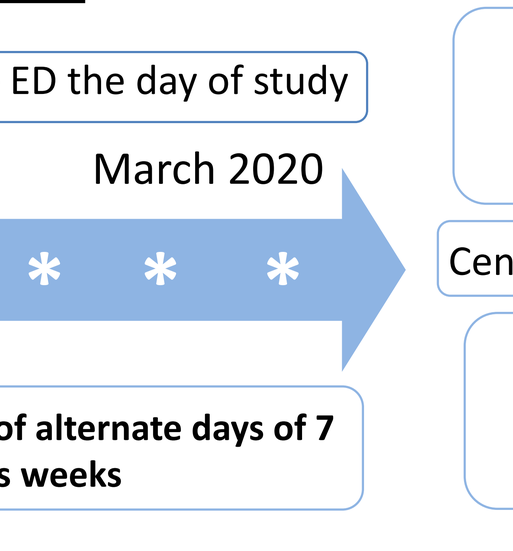
SPSSv.23

RESULTS

192 AT & 168 patients

Mean age	65 years (ED 19,6)
Sex	52% men
Charlson index ≥2	68,5%
Site of infection:	
- Respiratory	53%
- Urinary	19%
- Intraabdominal	12%

Evaluation of AT prescription



Assessment of the impact of inappropriate AT

Hospital stay increment

(OR 1’39; 95% CI 0’77-2’50; **p=0’269**)

Readmissions

(OR 0’751; 95% CI 0’35-1’59; **p=0’455**)

Mortality

(OR 1’40; 95% CI 0’87-22’86; **p=0’809**)

CONCLUSION & RELEVANCE

In general, center’s infection guidelines are followed since almost two thirds of AT were appropriate. Furthermore, inappropriate AT prescription did not lead to an increase in hospital stays, nor readmissions or mortality.

The inappropriateness AT results may be taken into account for the development of antibiotic optimization strategies.