

A MULTIDISCIPLINARY AND EDUCATIONAL APPROACH TO ANTIMICROBIAL STEWARDSHIP PROGRAMS IN THE EMERGENCY DEPARTMENT

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BACKGROUND AND IMPORTANCE

Inappropriate prescription of antimicrobials showed to be a cause of microbial resistance. As antibiotics are some of the most prescribed drugs in the Emergency Department (ED), an educational intervention by a multidisciplinary group could be effective to improve the use of these drugs.

AIM AND OBJECTIVES

To describe the current appropriateness of antibiotic prescription in the observation unit of the ED, and the first results of a multidisciplinary antimicrobial stewardship program (ASP).

MATERIALS AND METHODS

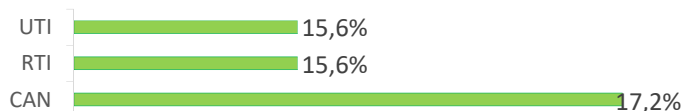
- A pilot interventional study of one month of duration was designed.
- An ASP was organised, composed of an infectious diseases physician, a clinical pharmacist and a microbiologist.
- Evaluation of antimicrobial treatments.
- Daily attendance to the ED providing oral and written education to the physician according to the protocols approved by the centre.
- Data collected includes patient demographics, diagnosis and antimicrobial prescribed (dose, route, duration), appropriateness of the prescription, recommendations made and its grade of acceptance.

RESULTS



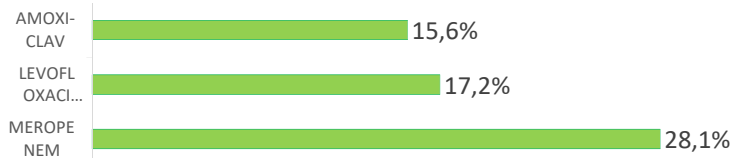
64 patients; mean age 70.2 years; 65.6% men;
4.6% allergic to beta-lactam

MOST COMMON DIAGNOSES

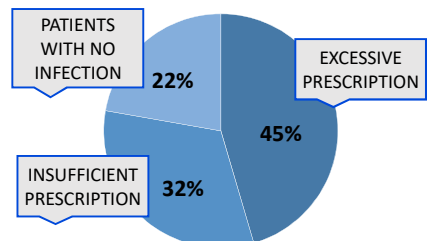


UTI: urinary tract infection
RTI: Respiratory tract infection
CAN: community-acquired pneumonia

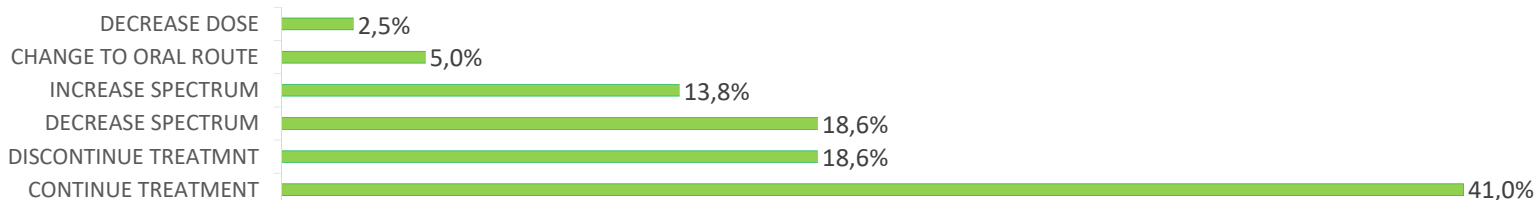
EMPIRICAL ANTIMICROBIALS MOST PRESCRIBED



48.4% OF PRESCRIPTIONS WERE INAPPROPRIATE ACCORDING TO THE PROTOCOLS



80 RECOMMENDATIONS ACCEPTANCE RATE 93,8%



CONCLUSION AND RELEVANCE

A great percentage of recommendations were accepted, which shows that our intervention was well received by the clinical staff. This could be explained by the involvement of a multidisciplinary group and the direct interaction with physicians. The implementation of an ASP with an educational approach might result highly effective to improve future antibiotic prescriptions in the ED.

REFERENCES

Timbrook, T.T., Caffrey, A.R., Ovalle, A. et al. Assessments of Opportunities to Improve Antibiotic Prescribing in an Emergency Department: A Period Prevalence Survey. *Infect Dis Ther* 6, 497–505 (2017). <https://doi.org/10.1007/s40121-017-0175-9>