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## Background and importance

Antimicrobial stewardship programmes (ASPs) aims to optimise antimicrobial prescriptions, enhancing clinical outcomes, minimizing antimicrobial resistance and improving the quality and safety of patients care. Guidelines recommend a multidisciplinary team, however many hospitals have not infectious diseases (ID) physician support

## Aim and objectives

To analyse the effectiveness of a **pharmacist-led ASP in a hospital without an ID physician**, with special focus on indicators of the hospital use of antimicrobial agents based on consumption<sup>1</sup>

<sup>1</sup>Gutiérrez-Urbón JM, Gil-Navarro MV, Moreno-Ramos F, et al. Indicadores del uso hospitalario de antimicrobianos basados en el consumo. *Farm Hosp.*2019;43(3):94-100

## Material and methods

**Pharmacist-led ASP**      200-beds hospital      1 January – 30 June 2019

- a) The ASP was presented to the hospital physicians through face-to-face sessions
- b) To improve the prescription of antibiotics, we revised prophylaxis and antibiotic therapy in management protocols and we developed a guideline with local antimicrobial recommendations
- c) Clinical sessions were held on different pathologies included in the ASP
- d) Information about antimicrobial consumption rate was provided to physicians

In addition, the pharmacist revised daily all patients who had a course of antibiotics during their hospital admission, through an electronic prescription program

**Recommendations** were carried out to physicians related to antimicrobials spectrum, dose adjustment, stop longer courses of antibiotics, interactions, allergies and others

The consumption of defined daily dose (DDD)/1000 patient-days was taken from the first half of 2019 and it was compared to the same period last year

## Results

248 recommendations

Indicators		2018	2019
Global consumption of antibiotics	- 19.7 %	931 DDD/1000 patient-days	747.9 DDD/1000 patient-days
Carbapenemic	- 41.3 %	21.3 DDD/1000 patient-days	12.5 DDD/1000 patient-days
Quinolones	- 34.9 %	192.7 DDD/1000 patient-days	125.5 DDD/1000 patient-days
Systemic antifungals	- 42.9 %	35.9 DDD/1000 patient-days	20.5 DDD/1000 patient-days
Ratio (cloxacilin + cefazolin) anti-MRSA agents		1.3	1.8

## Conclusion and relevance

Pharmacist-led ASP has achieved a reduction in the consumption of antibiotics, specially carbapenemic and quinolones. In the absence of ID physician´s support and oversight, pharmacists could be key in the improvement of the use of antibiotics

