

# OPTIMIZATION OF ANTIBIOTIC TREATMENT IN GENERAL SURGERY

Martínez-Núñez ME, Ramón-García J, Molina-García T, Guzmán-Sánchez MC, Sánchez-García A, Serrano-Bayón F.

Hospital Universitario de Getafe, Madrid, Spain

## BACKGROUND

Epidemiological studies have shown an association between antibiotic consumption and the emergence of resistance.

Institutional antibiotic use policies are essential in reducing the selective pressure for resistance improving the quality of outcomes and the patient security.

## OBJETIVE

To analyze the impact of a stewardship programme focused on the adequacy of antibiotic therapy for the treatment of intra-abdominal infections (IAI)

## METHODS

### Pre-Post intervention study

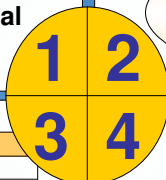
- ❖ October-November 2013: ("PRE" period)
- ❖ January-February 2014 ("POST" period)
- ❖ Inclusion criteria: surgical patients in active antibiotic treatment
- ❖ Exclusion criteria: perioperative antibiotic prophylactic

### DATA RECORDED

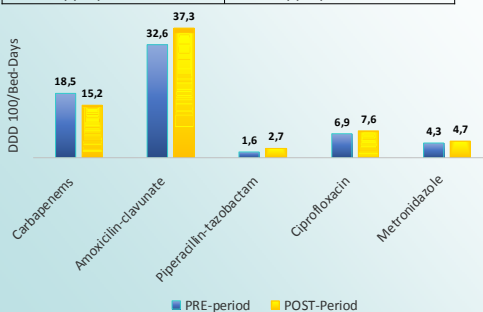
Age, sex	Adequacy of treatment
Comorbidities, type IAI (complicated, no-complicated)	Consumption: Defined Daily Dose (DDD) /100 bed-days
	Risk factors of Enterobacteria producing extend-spectrum beta-lactamase

### Inappropriate treatment:

Excessive length, incorrect dosage and/or route of administration, broad-spectrum antibiotic when de-escalation is possible



PRE-Period N=74	POST-Period N=57
Mean age = 60 yr	Mean age = 57 yr
Antibiotic duration = 7 days	Antibiotic duration = 5.1 days
75.9 DDD/100 Bed-Days	80.1 DDD/100 Bed-Days
Type IAI: complicated (26%), no-complicated (74%)	Type IAI: complicated (32%), no-complicated (68%)
20% inappropriate	11% inappropriate



## RESULTS

Use of broad-spectrum antibiotics is reduced and de-escalating has been promoted.

-Taking samples prior to initiation of antibiotic therapy is encouraged.

-An increased of duration(26%) was probably due to more serious infections.

-The multidisciplinary approach is one of the main tools of optimization antimicrobial use programs.

## CONCLUSIONS

**Conflict of interest: Nothing to disclose**

Email: [mariaeugenia.martinez@salud.madrid.org](mailto:mariaeugenia.martinez@salud.madrid.org)