

PHARMACIST INTERVENTION FOR THE IMPROVEMENT IN THE USE OF ANTIBIOTICS IN SURGERY SERVICE

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BACKGROUND

According to **antibiotics' (AB) consumption** in surgery service in our centre in 2016, it was observed that an **improvement in the use of AB** in the surgery service was necessary, since the data are beyond the consumption of AB in the region where our hospital is situated.

PURPOSE

To analyse the **effectiveness of a programme** of pharmacist intervention in the **reduction of the global use of antibiotics** in inpatient care in the surgery service, with special focus on **amoxicillin-clavulanic (A/C)** and **piperacillin-tazobactam (P/T)** consumption

MATERIALS AND METHODS

INTERVENTIONS

1

Protocols of surgery treatment were revised in an interdisciplinary meeting, and it was observed that all of them included P/T as an antibiotic prophylaxis.



The pharmacist proposed to replace P/T by A/C in protocol as a treatment of choice, and restrict the post-surgical treatment to three doses by default, setting it out in the electronic prescription program.

2

In addition, the pharmacist revised daily all the antibiotics prescribed with a duration larger or equal to 7 days, and carried out consultations with the surgeons so that they could value several options: **antibiotic de-scaling**, to **finish treatment** and to **extract cultures**.

The **global consumption of DDD/1000patient-days** and the **A/C and P/T consumption** was drawn from the first semester of 2017, and it was compared to the corresponding data in the first semester of 2016.

RESULTS

GLOBAL CONSUMPTION OF ANTIBIOTICS

•The global consumption of antibiotics in the surgery service was reduced 10.15%

A/C CONSUMPTION

•The A/C consumption in the surgery service was reduced 27.21%

P/T CONSUMPTION

•The P/T consumption in the surgery service was reduced 18.84%

CONSUMPTION OF ANTIBIOTICS	DDD/1000 patient-days 2016	DDD/1000 patient-days 2017	Reduction
GLOBAL	970.75	847.37	-10.15%
AMOXICILLIN-CLAVULANIC	340.48	247.78	-27.21%
PIPERACILLIN-TAZOBACTAM	259.47	210.58	-18.84%

CONCLUSION

The incorporation of a **programme of interdisciplinary intervention** to optimise the adaptation and duration of antibiotic treatment in the general surgery floor has achieved a **reduction in the consumption of antibiotics**, specially A/C and P/T, with the presence of the pharmacist