

INTERVENTIONS TO DECREASE THE MULTIDRUG-RESISTANT BACTERIAS IN INTENSIVE CARE UNIT: PRELIMINARY RESULTS

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BACKGROUND

In April 2015, a national project was created to reduce the rate of patients with nosocomial infection by multiresistant bacterias (MRB). This project was composed of several recommendations including those for improving the use of antibiotics, especially against MRB.

OBJETIVE

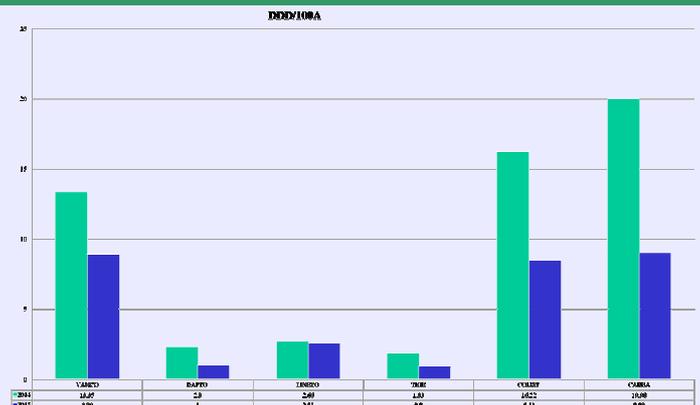
To analyze the impact of the project on the consumption of antibiotics in our intensive care unit (ICU) during the first months after the project implantation; also its economic impact and the number of patients colonized/infected by multiresistant *Acinetobacter baumannii* (MAB), the most important MRB in our ICU.

METHOD

- Retrospective, observational study to compare two periods of time (April-September 2014 vs April-September 2015). The number of defined daily dose per 100 admissions (DDD/100A) was used to evaluate the consumption of the studied antibiotics: glycopeptides, linezolid, daptomycin, tigecycline, colistin and carbapenems.
- Average cost of these drugs was used to do the economic assessment; we did not considerate either the indirect costs or the possible variation in the number of admissions between the two periods. We supposed that infected/colonized patients by MAB were those that had a positive microbiological test for *Acinetobacter baumannii* that was resistant to three or more families of antibiotics, including carbapenems.

RESULTS

- The overall antimicrobial consumption was reduced by 45,4% (56,3 vs 30,7 DDD/100A) and costs decreased by 32,9% (42783€ vs 28685€).
- There was the same number of patients, 13, with infection/colonization MAB in both studied periods.
- ICU mortality was 12,8% in 2012 and 10,9% in 2013.



CONCLUSIONS

- To avoid the use of unneeded broad spectrum antibiotics and/or to get shorter the treatment could reduce the selective pressure and the number of MRB. In addition, this also could suppose an important saving.
- The project implementation has reduced the use of all studied antibiotics for the treatment of MRB, but not significant differences have been found in the number of patient infected/colonized by MAB, this could be because more time would be needed to detect this difference.