



# IMPORTANCE OF PREVIOUS MICROBIAL CULTURES IN CARBAPENEMS USE

Valderrey Pulido M; Vicente Sánchez S; Olmos Jiménez R; Pareja Rodríguez de Vera A; Fernández de Palencia Espinosa MA; De la Rubia Nieto MA

University Hospital Virgen de la Arrixaca. Murcia.

## Background

✓ Carbapenems are widely used as broad-spectrum antibiotics but in several cases microbiological cultures had not been taken before carbapenems use, therefore hindering the down-scaling to targeted therapy.

## Objective

✓ Evaluate the increase in the percentage of the blood cultures requested before carbapenems use because of a pharmaceutical intervention and the results of the cultures to describe if microorganisms are sensible to carbapenems and if its possible to downscale.

## Methods

✓ Prospective and interventional study including adults patients using carbapenems. From June 2014, department of pharmacy set a recommendation saying blood must be taken from the patient for microbiological blood cultures before carbapenem use, and the physicians have to check this recommendation to finish the electronic prescription of a carbapenem.  
 ✓ The record of every patient with carbapenems prescription has been seen for 3 consecutive months, 1 month before and 2 months after the recommendation.

## Results



✓ During the study period, 209 blood culture requests were done before carbapenem prescription, 48,3% were negatives, and 52,7% positives. 58,2% of microorganisms isolated were sensitive to carbapenems.

## Conclusions

✓ The outcome shows a clear improvement in the blood cultures requested by physicians, these allows to optimize antibiotics use facilitating the down-scaling which avoids the appearance of antibiotic resistance.  
 ✓ Half of the microorganisms isolated were not sensitive to carbapenems, doing necessary to change the antibiotic, which gives more value to a previous blood culture.

## Acknowledgements

Authors of this presentation have no acknowledgments.