

**eP1679****Impact in therapeutic choice of a new and rapid test for carbapenemase producing detection directly from blood culture**

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Background: In bloodstream infections time is crucial, therefore a rapid antimicrobial resistance profile, provides critical information for best antimicrobial therapy choices. A test procedure was designed, where blood samples were spiked with known carbapenemase producing isolates, followed by incubation in blood culture bottles. When positivity was detected, samples were incubated in LB broth, for two hours and afterwards submitted to CarbaNP test, with modifications (Dorted et al., 2013). This previously optimized test showed 87% sensitivity (depending on the carbapenemase type) and 100% specificity, besides that the time required for final result was 3-4 hours, after blood culture bottle positivity. As the effective treatment of bacteremia depends on prompt and adequate antibiotic administration, the aim of this study was to evaluate the impact of the described test on therapeutic intervention and clinical outcome. Material/methods: The test was performed in a university hospital, during two months, for all the gram-negative bacilli positive blood culture, resulting in 73 samples from different patients. Samples were taken once per day, from all blood bottles cultures that positivated in the last 24h. Usually, the test procedure started at 12:30 and if the sample was positive the responsible physician was informed around 17:00. The clinical outcome was registered in medical records. Results: From the 9 (12,3%) positive results for carbapenemase production: 2 patients had the antimicrobial therapy changed after the test results; 3 patients already had some infection caused by carbapenemase producing microorganisms, consequently were already under adequate therapy, other than carbapenem; 1 positive result couldn't be analyzed; 3 patients didn't have the antimicrobial therapy changed, from these, two died and one got better and was home discharged. Conclusions: The test evaluated in this study, presented reliable and fast results that can support physician therapy choice. Besides that, the test can be easily implemented in a routine microbiological laboratory, permitting early identification of carbapenemase producing Enterobacteriaceae, in bloodstream infections. This study will be continuing to a better evaluation of clinical outcome and cost-effectiveness in our hospital. Palavras-chaves: bloodstream infections, carbapenemase, carbanp