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P2808 Evaluation of Rapid Polymyxin Acinetobacter Test to detect colistin-resistant *Acinetobacter baumannii* in a tertiary hospital in Thessaly, Greece

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Background: Many methods have been proposed for antimicrobial susceptibility testing to colistin (AST). However, current EUCAST recommendations state that only broth microdilution (BMD) should be used as a reliable method. Recently a commercial kit, the Rapid Polymyxin Acinetobacter test, that is a colorimetric test based on formation of acid metabolites consecutive to the glucose metabolism as a sign of growth in the presence of colistin, is introduced in clinical laboratories. Purpose of the present study was the evaluation of this test compared with BMD.

Materials/methods: A total of 60 multi-resistant *A.baumannii* clinical strains, including 30 colistin susceptible (MIC geometric mean value: 0.71 mg/L, $MIC_{50/90}$: 0.225/ 0.642 mg/L, respectively) and 30 colistin-resistant (MIC geometric mean value: 18.38 mg/L, $MIC_{50/90}$: 6.553/ 19.33 mg/L, respectively) based on BMD method, were examined by the Rapid Polymyxin Acinetobacter test.

Results: All the isolates tested were carbapenem-resistant. Considering BMD as the reference method, the Rapid Polymyxin Acinetobacter test failed to detect two colistin-resistant (MIC: 8 mg/L and >16 mg/L). On the other hand, five sensitive isolates (3 isolates with MIC: 2 mg/L, 1 isolate with MIC:1 mg/L and 1 isolate with MIC: 0.5 mg/L) were falsely characterized as resistant. The test had sensitivity, specificity, positive and negative predictive value 93.5%, 82.8%, 85.3% and 92.3%, respectively. Compared to previous report from our laboratory presented on ECCMID 2018 (O0953) concerning Enterobacterales and colistin, the performance of the test was similar.

Conclusions: The Rapid Polymyxin Acinetobacter test showed a good agreement compared with the BMD method, and seems to be easily and rapidly applied (4 hours) in a routine clinical laboratory