Objectives: The spread of multidrug-resistant (MDR) gram-negative pathogens is one of the major hazards for patients requiring long-term hospitalization or in intensive care units (ICU). MDR phenotype includes resistance to carbapenem drugs. A resistance to carbapenems in Gram negative bacteria can be mediated by three main mechanisms, namely: production of extended-spectrum beta-lactamase (ESBL/IMP) associated with loss of porins, production of metallo-beta-lactamase (MBL) and production of *K. pneumoniae*-carbapenemases (KPC). In order to propose an easy-to-use routine laboratory test, a new Etest® strip was developed. This new test is based on the reduction of meropenem (MP) inhibitory concentration (IC) in the presence of phenylboronique acid (PBA). The aim of this study was to compare Etest® KPC MP/MPB with two Liofilchem strips MRP/MBO and ETP/EBO already available on the market for their ability to detect the KPC-producing *Enterobacteriaceae*.

Methods: A total of 90 genotypically characterized Enterobacteriaceae were tested (50 KPC, 10 MBL, 8 OXA-48, 6 strains with a class A carbapenemase and 16 strains without carbapenemase (wild or with reduced carbapenem susceptibility). Each strains was evaluated with the procedure for standard Etest® MIC testing of Gram negative aerobes and as described in the package insert of Liofilchem products i.e. for all tests : inoculum 0.5 McF – Mueller Hinton and 16-20h incubation at 35°C.

Results: all the Tests have a good performance in term of sensitivity with 95,3% for Etest MP/MPB, Liofilchem ETP/EBO and 92% for Liofilchem MRP/MBO. Etest MP/MPB was distinguished of both other tests with a specificity of 100% instead of 41,2% and 56,4% for Liofilchem strips. This difference was due to a high rate of false positives by deformation obtained on Liofilchem strips.

Conclusion: The new Etest® KPC MP/MPB is fast and easy-to-use method. Its high specificity and sensitivity make it the test of choice for the initial characterization of KPC in comparison with the other strips available on the market. This kind of tests are required to implement efficient infection control measures to limit the spread of these MDR pathogens.