

A RAPID TEST FOR DETECTION OF OXA-48 CARBAPENEMASE

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BACKGROUND AND OBJETIVE

In recent years, there has been an increasing growth in enterobacteria producing carbapenemases, particularly OXA-48, as in our hospital, often associated with outbreaks difficult to control.

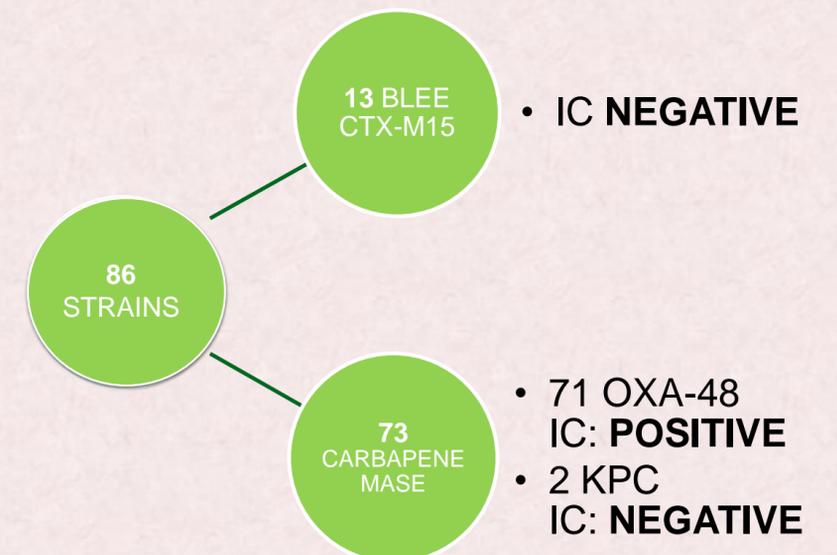
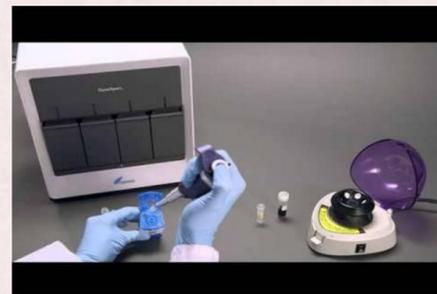
Our objective is to evaluate "OXA-48 Card Letitest ® (Leti diagnosis)", a new non molecular diagnostic test for the detection of carbapenemase. And compare it with molecular techniques, particularly real-time PCR "Xpert® Carba-R (Cepheid)".

RESULTS

We have studied 86 *K. pneumoniae* strains, 55 were isolated from rectal samples and 31 from clinical specimens (21 urine samples). From a total of 86 *Klebsiella pneumoniae*, 13 were extended-spectrum β -lactamase (ESBL) positive (CTX-M 15) and 73 were carbapenemase-producing positive (71 OXA-48 and 2 KPC). The immunochromatographic (IC) test was negative in 13 strains ESBL without carbapenemase. IC were positive in 71 of 73 strains carbapenemase-producing, and were negative in 2 strains. These 2 negative results matches with the 2 KPC carbapenemase strains. The agreement between the results obtained using IC and molecular technique was 100%, with a Cohen's kappa coefficient of 0.965 ($p < 0.001$). These data were confirmed by the CNM.

MATERIALS/METHODS

From May to November 2015, in the context of an outbreak in our hospital of "K. pneumoniae CTX-M 15 and OXA 48 like", 86 strains of K. pneumonia were studied with both "Letitest OXA-48 Card" and real-time PCR "Xpert® Carba-R (Cepheid)", and their results were compared. The results were confirmed by the study of clonality at the National Microbiology Center (CNM).



CONCLUSION

- "Letitest OXA-48 Card" is a fast, efficient and economical technique for the detection of carbapenemase OXA-48 from isolated.
- "Letitest OXA-48 Card" is a useful tool for the management of outbreaks hospital caused by carbapenemase-producing *K. pneumoniae*