

eP750

Abstract (eposter session)

**High rate of GES-type extended-spectrum  $\beta$ -lactamase-producing *Acinetobacter baumannii* clinical isolates in Turkey**

A. Nazli Zeka\*, P. Nordmann, B. Arda, O. Sipahi, S. Ulusoy, L. Poirel (Le Kremlin-Bicêtre, FR; Ege, TR)

**Background:** *Acinetobacter baumannii* is an opportunistic pathogen that is a source of nosocomial infections. Carbapenemases and extended-spectrum  $\beta$ -lactamases (ESBLs) of the GES-type are being increasingly reported among Gram negatives, and in particular in *A. baumannii*. The aim of our study was to analyze the distribution of ESBLs and carbapenemases from 60 patients infected with carbapenem-resistant *A. baumannii* in intensive care units (ICUs) at a University Hospital between March and September 2012 (7-month period). **Methods:** Inclusion criteria for the *A. baumannii* clinical isolates corresponded to those obtained from infected (not colonised) ICU patients, and being carbapenem resistant by susceptibility testing. MICs were determined by agar dilution and E-test techniques. PCR and sequencing were used to identify the  $\beta$ -lactamase genes. Mating-out assays, electro-transformation were performed to determine their genetic location. Clonality was evaluated using MLST and PFGE. **Results:** All clinical isolates tested were positive for the blaOXA-23 carbapenemase gene. Five isolates among them harbored the blaGES-11 gene that encodes an ESBL with weak carbapenemase activity. No blaNDM-positive isolate was identified. Analysis of the genetic location of the ESBL genes indicated that the blaGES-11 gene were plasmid-located in all positive isolates. When identified together in the same isolate, the blaOXA-23 and blaGES-11 genes were co-located on the same plasmid. PFGE genotyping revealed that the sixty clinical isolates belonged to 5 different pulsotypes. Those isolates co-expressing OXA-23 and GES-11 all belonged to worldwide clone II, corresponding to an ST2 as defined by MLST. **Conclusions:** This study identified the first GES-type ESBLs in carbapenem-resistant *A. baumannii* isolates in Turkey. It indicates that *A. baumannii* might represent an reservoir for GES type carbapenemases.