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**ePoster Viewing**

**Diagnostic bacteriology – non-culture based, including molecular and MALDI-TOF**

**Epidemiology of *Acinetobacter calcoaceticus* – *Acinetobacter baumannii* (ACB) complex species associated with bacteraemia in Angers University Hospital, France, between 2010 and 2014**

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**Background:** In the *Acinetobacter* genus the species *A. baumannii* (Ab), *A. pittii* (Ap) and *A. nosocomialis* (An) are the most frequently isolated in clinical samples. However, they are hardly distinguishable by conventional phenotypic methods therefore they have been classified in the ACB complex. To overcome these shortcomings, the laboratory of bacteriology of the University Hospital of Angers, France, has recently implemented the RUO (Research Use Only) database of the MALDI-TOF mass spectrometer VITEK MS (bioM erieux) to identify Ab, Ap and An at a species level<sup>1</sup>. The aim of the present study was to analyze the prevalence of these species within the ACB isolates identified in blood cultures and catheters in the laboratory between 2010 and 2014.

**Material/methods:** All isolates identified as ACB and isolated between 2010 and 2014 from blood and catheters were included in this study. These isolates were initially identified by Vitek2 (2010-2012) or by MALDI-TOF with the *In Vitro* Diagnosis system (Vitek MS) (2012-2014). All those isolates were identified at a species level by MALDI-TOF RUO system, with the database "*Acinetobacter*" optimized in the laboratory.

**Results:** A total of 177 ACB were isolated from blood cultures and catheters, corresponding to 106 patients. Among these patients, 61 (57.5%) had positive blood cultures, 32 (30.2%) had positive catheters and 13 (12.3%) had both positive blood cultures and catheters. Ap was predominant in patients with positive blood cultures (73.8%) while Ab was isolated in only 26.2% of them. An was isolated in 2 patients. Concerning patients who had both positive blood cultures and catheters, Ap and Ab were present in equal proportions. Sixteen patients (15.1%) had ACB complex species isolated in samples from other anatomical sites: 5 ACB were isolated in bronchoalveolar lavages, 3 in urine, 4 in rectal swabs, 1 in an abscess, 1 in a wound and 2 in an implantable chamber. It is noteworthy that 17 of the 106 patients were hospitalized in medical or surgical intensive care units. In these patients, Ab was isolated in 76.5% of the cases.

**Conclusions:** In this study, a high prevalence of Ap was recorded in patients with bacteraemia, especially in those who had positive blood cultures only. These results are contradictory with those of previous studies that identified Ab as the most frequent *Acinetobacter* species isolated during bacteraemia. In our study we showed that Ab was only predominant in patients hospitalized in intensive care units. Since Ab seemed to be associated with bacteraemia of higher gravity, as reported in literature, it is important to identify at a species level the bacteria belonging to the ACB complex.

<sup>1</sup> Pailhori es *et al.*, Diagn Microbiol Infect Dis 2015