P1515 **A 17-year epidemiological survey of e-ESBL positive patients: incidence, microbiology and mortality**

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Background: A prospective surveillance multidrug resistant bacteria has been implemented since 2005 in patients with positive e-ESBL sampling at the Nantes University Hospital, France. This survey is carried out using data from the Bacteriology-Hygiene laboratory and allows the implementation of contact barrier precautions for each patient detected. The objective of this study was to describe the epidemiological characteristics of positive patients and to calculate the incidence of bacteremia and death from 2005 to 2016.

Materials/methods: We performed a retrospective analysis of the positive e-ESBL cohort patient from 2005 to 2016. Each annual database was analyzed to exclude duplicates and all annual databases were then merged. Demographical, clinical and microbiological data were collected from informatics patient records (Millenium® and Clinicom® Softwares) and laboratory database. Bacteremia was defined when at least one positive blood sample was observed. Global and attributable mortality were defined. Data were analyzed with excel Excel® Software.

Results: 2950 e-EBSL positive patients were included in the study. The incidence varied from 28 in 2005 to 541 in 2016. 332 patients (11.3%) developed bacteremia with an incidence varying from 2 in 2005 to 59 in 2014 and 46 in 2016. The proportion of bacteremia significantly increased from 7% in 2005 to 12% in 2016 (p<0.05). Among the 332 bacteremia, 49.6% were diagnosed during the 48 first hours of hospitalization and were defined as community-acquired infections. Enterobacteriaceae responsible for bacteremia were mainly Escherichia coli (67%), Enterobacter spp. (18%) and Klebsiella spp.(17%). The global mortality rate was 21% (623/2950). The direct and indirect mortality rates in patient with ESBL positive bacteremia were 9% (58/623), respectively. No significant differences were observed in mortality according to the type of e-ESBL.

Conclusions: E-ESBL incidence has increased in a very high proportion during the study period. Barrier precautions as prescribe to control the hospital epidemic risk with relative success. But they cannot control this sporadic increase as half of the cases were community-acquired carriage. The proportion of e-ESBL patients who developed bacteremia increased significantly and highlights the need to survey and prescribe isolation measures according to the mortality rate.