

**P2407 Follow-up blood cultures in Gram-negative bacteraemia: are they needed for critically ill patients?**

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**Background:** Gram-negative bacilli bacteremia (GN-B) represents a major cause of morbidity and mortality among critically ill patients (pts). The decision to perform follow-up blood cultures (FUBCs) relied on clinical judgment and their significance is debated (Canzoneri CN et al, Clin Infect Dis, 2017). Aim of this retrospective observational study was to assess incidence, risk factors and clinical impact of persistent GN-B (PGN-B).

**Materials/methods:** Clinical and microbiological data from consecutive episodes of GN-B occurring to pts hospitalized in a multidisciplinary ICU were collected from January 1st to December 31, 2017. PGN-B was defined as positive FUBCs after  $\geq 96$ h of appropriate antibiotic treatment and  $\geq 48$ h after removal of all intravascular devices.

**Results:** During the study period 107 episodes of GN-B have been observed. FUBCs were performed in 78 (73%) GN-Bs occurring in 49 pts: out of these, 26 (53%) had no episodes of PGN-B, while 23 (47%) had at least one episode of PGN-B.

Comparing demographic and clinical characteristics between PGN-B and non PGN-B pts, no difference in median age, sex, comorbidities and severity scores (Charlson's comorbidity index, SAPS II and SOFA), ICU and in-hospital mortality have been observed. ICU admission for medical or surgical abdominal disease was more frequently reported in non PGN-B pts ( $p=0,022$ ).

Analysis of the 78 GN-B with FUBCs revealed 28 (36%) PGN-Bs. Intravascular infection (septic thrombophlebitis or endocarditis) was documented in 14/28 (50%) PGN-Bs vs 0/50 (0%) non-PGN-Bs ( $p < 0,001$ ). Primary bacteremia was established in 29/50 (58%) non-PGN-B vs 3/28 (10,7%) PGN-B ( $p < 0,001$ ).

**Conclusions:** FUBCs could represent a useful tool in the management of GN-B in ICU pts since approximately 1/3 of cases might represent PGN-B that needs appropriate study to rule out an endovascular source of the bloodstream infection.