Background and Aim The aim of this study, the frequency of catheter associated blood stream infection (CA-BSI) and its effect to mortality and length stay (LOS) of hospital.

Methods This study was conducted between November 1, 2010 and February 29, 2012, and it is prospective and observational.

Results During study period, 275 patients admitted to PICU. Fifty-six percent of all patients were girl and their mean age were 87 ± 8.7 months. There was CVC in 107 (38.9%) patients. Also, there were CVC at vena jugularis interna (VJI) in 48.9%, femoral in 46.7% and subclavian in 4.3% of patients with CVC. There were 23 times CA-BSI in 16 (4.8%) patients. Totally CVC use day was 1589 days and CA-BSI was 14 attack/1000 days within study period. The agents of CA-BSI were A. Baumannii (26%), MR-Coagulase Negative Staphylococcus (21.7%), ESBL (+) KL. Pneumonia (21.7%), VRE (8.6%), P. Aeruginosa (8.6%). There were 169 patients without CVC and 4 (2.4%) of them BSI. CA-BSI was 88% of all BSI. The LOS of PICU was 43.7 ± 63.7 days in patients with CA-BSI and 11 ± 11.4 days in patients without CA-BSI in patients with CVC (p=0.005). The LOS of PICU in patients without CVC; 29.7 ± 16.1 days in BSI group and 5.1 ± 5.7 days in without BSI group (p=0.001). During study period, 36 (13%) patients died and 5 of them were related CA-BSI.

Conclusion CVC use is severe risk factor for CA-BSI, LOS of PICU and mortality.

CASE-CONTROL ANALYSIS OF ENDEMIC ACINETOBACTER BAUMANNII BACTEREMIA IN THE NEONATAL INTENSIVE CARE UNIT

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Background and Aims Coagulase positive Staphylococci (CoNS) are most prevalent pathogens in central line associated bloodstream infections (CLABSI) in very low birth weight (VLBW) infants. The aim of this study was to compare CLABSI caused by CoNS in terms of virulence and clinical relevance.

Methods A retrospective observational analysis of all CLABSI caused by CoNS in VLBW infants admitted to our NICU during a 5-year period (2006–2010) was performed. Two groups of CLABSI were compared: the OXAS caused by CoNS susceptible to oxacillin and the OXAR caused by CoNS resistant to oxacillin, in terms of perinatal demographic data, related laboratory signs and clinical data.

Results There were 54 episodes of CLABSI caused by CoNS found in 51 infants, 14 in the OXAS group (average BW±SD: 855g ± 293; average GA±SD: 25.9 wks ± 2.8) and 40 in the OXAR group (average BW±SD: 788 g ± 241; average GA±SD: 26.2 wks ± 2.3). The OXAR group presented a higher maximum CFR levels (median±95%CL: 28±15 mg/l vs. 21±12 mg/L, p=0.047), as well as the maximum values of the I/T index (median±95%CL: 0.23±0.04 vs. 0.19±0.05, p=0.051), higher number of positive blood cultures (median±95%CL: 1±1.4 vs. 2±0.3, p=0.006) and the tendency to a higher incidence of necrotizing enterocolitis (38% vs. 14%, p=0.078).

Conclusions Resistance to oxacillin in CoNS CLABSI has a relevant influence on higher levels of inflammatory markers and the tendency to NEC in VLBW infants.