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ePoster Viewing

Sepsis, bloodstream and graft infections: *Staphylococcus aureus* and others

**OUTCOME IN PATIENTS WITH COMMUNITY-ONSET BACTERAEMIA AND SEPTIC SHOCK: PATHOGEN SPECIES AND INFECTION SITES ARE ASSOCIATED WITH MORTALITY**

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**Objectives:** We evaluated the influence of the causative pathogen and infection site on 30-day mortality from septic shock related to community-onset bloodstream infection (Co-BSI)

**Methods:** A 7-year prospective cohort database was used. We included all consecutive Co-BSI episodes with septic shock admitted to a large university tertiary care hospital. Co-BSI was defined as either healthcare-associated or community-acquired BSI. A stepwise forward logistic regression analysis with death at 30 days as the dependent variable was made.

**Results:** During the study period 582 episodes of septic shock occurred in patients with Co-BSI. 211 (36.3%) patients had a solid organ or haematological malignancy. The most frequent infection sites were urinary tract (27.5%); respiratory tract (16.3%) and unknown focus (14.8%). *Escherichia coli* (43.5%) was the most common isolate, followed by *Streptococcus pneumoniae* (9.6%), *Klebsiella* species (9.3%), *Staphylococcus aureus* (8.1%) and *Pseudomonas aeruginosa* (7.0%). In 65 (11.2%) episodes the empirical antibiotic treatment was inappropriate. \*\*\*The 30-day mortality rate was 33.7% and independent risk factors associated were as follows: age over 85 years (OR 6.87, 95%CI 3.39-13.91) –taking age under 50 as reference-, healthcare-associated BSI (OR 1.44, 95%CI 1.14-1.83), a rapidly or ultimately fatal underlying disease (OR 1.94, 95%CI 1.22-3.09), liver cirrhosis (OR 2.99, 95%CI 1.58-5.66), haematopoietic stem cell transplantation (OR 4.75, 95%CI 1.40-16.15), inappropriate empiric treatment (OR 2.70, 95%CI 1.47-4.95), isolation of *S. aureus* or *P. aeruginosa* (OR 3.81, 95%CI 1.74-8.37 and OR 2.56, 95%CI 1.18-5.57, respectively) and – taking a respiratory focus as reference – having a non-catheter endovascular source (OR 3.62, 95%CI 1.23-10.65).

**Conclusion:** In patients with septic shock in Co-BSI appropriate empirical therapy is the main modifiable prognostic factor. Some characteristics of the infectious process, as selected sources (non-catheter related endovascular) and causative microorganism (*S. aureus* and *P. aeruginosa*) also exert a strong prognostic effect. These findings suggest that there is still room for optimising management of the source and of *S. aureus* and *P. aeruginosa* BSI for improving outcomes in this setting.