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Abstract (poster session)

Surveillance of the central venous catheter-related bloodstream infections in haematological patients

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Objectives: Analysis of the frequency, risk factors and etiology of the central venous catheter-related bloodstream infections (CVC-BSIs) in haematological patients. **Materials and methods:** We retrospectively analysed data related to the risk factors and etiology of CVC-BSIs for the time period from January 2006 until September 2011. The duration of catheter insertion, the number of CVC-BSIs and incidence density rates per 1000 catheter-days were calculated. Catheter tip cultures were performed according to Maki's semi-quantitative method. Bacterial strains were isolated and identified according to standard methods. All staphylococcal cultures were subsequently tested for methicilin susceptibility with a cefoxitin disc diffusion test. **Results:** The total of 2500 central lines were analysed. The mean duration of CVC insertion decreased from 19 days in 2006 to 14.5 days in 2011. During the study period 97 CVC-BSIs were reported. The incidence density rate decreased from 4.5/1000 catheter-days in 2006 to 1.3/1000 catheter-days in 2011. Among cultured microorganisms (n=93) the most common were staphylococci – 67 (72.0%) strains. Methicillin-resistant *S. epidermidis* (MRSE) comprised 42/50 (84.0%) strains, while methicillin-resistant *S. aureus* (MRSA) – 4/13 (30.8%) strains. Enterococci constituted 8/93 (8.6%) isolates, enteric rods – 8/93 (8.6%), and *A. baumannii* – 2/93 (2.1%) strains. Eight strains of *C. albicans* were cultured (8.6% of all isolates). **Conclusions:** During the observation period the mean duration of CVC insertion decreased from 19 days in 2006 to 14.5 days in 2011. At the same time the incidence density rate decreased from 4.5/1000 catheter-days in 2006 to 1.3/1000 catheter-days in 2011. The main etiological agents were staphylococci; MRSE comprised 84% of *S. epidermidis* strains. *C. albicans* strains amounted to almost 9.0% of all isolates, while no strains of *C. parapsilosis* were cultured. Gram-negative non-fermenting rods were very uncommon (2.1%).