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Abstract (poster session)

Clinical experience with ceftaroline fosamil for bloodstream infections

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Objective: To retrospectively describe the outcomes of patients (pts) treated with ceftaroline fosamil (CPT) for bloodstream infections (BSI). **Methods:** A retrospective observational study of all consecutive pts who received more than 48 hours of CPT at the Detroit Medical Center and Alexian Brothers Health System from January 2011 to November 2012. Pts receiving CPT therapy for BSI were included for evaluation. Clinical and microbiological outcomes were analyzed. Clinical cure (CC) defined as infection resolved at the end of CPT therapy and no additional therapy needed. **Results:** Forty-two patients were treated with CPT for BSI: concomitant source of bacteremia include 14 (33%) pneumonia, 11 (26%) endocarditis, 10 (23%) acute bacterial skin and skin structure infection, 3 (7%) IV catheter-related infections, 2 (5%) spinal abscesses, 1 (2%) prosthetic device and 1 (2%) unknown. Median APACHE II score was 13 (IQR 8-18) and Charlson Index of 4 (IQR 2-6). A pathogen was isolated in all 42 patients, with Staphylococcus aureus (SA) as the most common pathogen 98% found in blood cultures. Thirty-six (86%) were methicillin-resistant SA (MRSA) and 5 (12%) were methicillin-susceptible SA. Two of the MRSA isolates were daptomycin-nonsusceptible SA, 1 was heterogeneous vancomycin-intermediate SA, and 1 was vancomycin-intermediate SA. Six (14%) were polymicrobial with a Gram-negative or another Gram-positive bacteria. Median CPT MIC for SA was 0.5 mg/L (0.5-2). Median total length of stay was 19 days (IQR 13-29) and median duration of CPT was 10 days (IQR 4-15). The most common CPT dosage (69%) was 600 mg Q12h and was adjusted for renal function. Thirty-eight (91%) pts were given another antibiotic prior to the start of CPT with a median of 6 days (IQR 3-9) of prior antibiotic exposure. The median length of time of clearance of BSI was 2 days (IQR 1-4.5). Forty-one (98%) pts were clinically evaluable and 38 (93%) achieved CC or improvement at the end of CPT therapy. Overall, 5 (12%) pts died during hospitalization where 4 pts had clearance of blood cultures and 1 had persistent BSI at the end of CPT. One (2%) had readmission for the same infection within 30 days after discharge. **Conclusion:** The majority of pts had SA BSI treated with CPT as a salvage agent with a median of six days after receiving another antibiotic and had favourable outcomes. Further research is necessary to clarify its clinical role in this infection manner outside its approved label.