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ePoster Viewing

New and not so new antibiotics

CEFTAROLINE FOSAMIL FOR TREATMENT OF CSSTI DUE TO STAPHYLOCOCCUS AUREUS WITH VANCOMYCIN MICs OF 1.5 TO 2 MG/L: CAPTURE STUDY EXPERIENCE

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Objectives

Recent literature reports suggest decreased clinical success among patients with infections due to *S. aureus* with reduced vancomycin susceptibility (RVS) as defined by vancomycin MICs of 1.5 to 2 mg/L. This situation may be exacerbated due to 'MIC creep' associated with vancomycin treatment. CAPTURE is a US multicenter registry study describing patients treated with ceftaroline fosamil (CPT-F) for complicated skin and soft tissue infections (cSSTI) and community-acquired pneumonia. The objective of the current study was to investigate clinical outcome with CPT-F among patients with cSSTI due to *S. aureus* with RVS.

Methods

Data were collected at participating study centers in the US by randomized selection and review of patient charts, and included demographics, disease characteristics, antibiotic use, and outcomes. The evaluable population consisted of enrolled patients who had available data to determine a clinical outcome. Clinical success was defined as clinical cure with no further need for antibiotic therapy or clinical improvement with switch to oral agents, at end of CPT-F treatment. The microbiologically evaluable (ME) population consisted of evaluable patients with a confirmed *S. aureus* infection.

Results

There were 1392 and 469 patients in the evaluable and ME populations, respectively. Within the ME population, at least 31 patients had infections due to RVS; the incidence of RVS was 19/127 (15%) among MRSA and 12/49 (24%) among MSSA. Demographics for the RVS group were: 19 (61%) males, mean age 56.2 (SD 16.2, range 26-84) years, mean BMI 33.8 (SD 11.0, range 20-69). 16 RVS patients had diabetes mellitus (DM) and/or peripheral vascular disease (PVD). Infections included cellulitis, infected surgical wound, infected ulcers and major abscess. 28 (90%) RVS patients received antibiotic therapy prior to CPT-F, most commonly with vancomycin (16 patients, 52%). Patients received CPT-F for a mean of 5.9 (SD 3.1, range 3-15) days. 26 patients received CPT-F as monotherapy and 5 patients received CPT-F in combination, including vancomycin (1) or linezolid (1). The incidences of MRSA were 323/469 (69%) in the ME population, 19/31 (61%) within the RVS population, 10/16 (62%) among DM/PVD patients and 9/15 (60%) among non-DM/PVD patients. Clinical success was 86% within the evaluable population and 83% within the ME population (MSSA 84%, MRSA 83%). Clinical success for RVS *S. aureus* was 23/31 (74%), with 8/12 (67%) and 15/19 (79%) among MSSA and MRSA respectively. Clinical success rates were 69% (MSSA 67%, MRSA 70%) among RVS patients with DM and/or PVD (n=16) and 80% (MSSA 67%, MRSA 89%) among non-DM/PVD patients (n=15).

Conclusions

CPT-F exhibited high clinical success in cSSTI due to RVS *S. aureus*, despite significant co-morbidities and extensive use of prior antibiotic therapy including vancomycin. These results suggest that CPT-F is an effective therapy for patients with RVS *S. aureus*.