eP425
ePoster Viewing
New and not so new antibiotics

THE EFFECTIVENESS AND SAFETY WITH CEFTAROLINE FOSAMIL (CPT) THERAPY FOR LOWER RESPIRATORY TRACT INFECTIONS (LRTI) IN A RETROSPECTIVE MULTICENTRE STUDY

A. Casapao[1], S. Davis[1], V. Barr[2], K. Klinker[3], D. Goff[4], K. Barber[1], R. Mynatt[5], K. Kaye[6], J. Pogue[5], M. Rybak[1]

[1]Pharmacy Practice, Wayne State University, Detroit MI, USA ; [2]Pharmacy, Alexian Brothers Health, Arlington Heights IL, USA ; [3]Pharmacy, University of Florida Health Shands, Gainesville FL, USA ; [4]Pharmacy, Ohio State University, Columbus OH, USA ; [5]Pharmacy, Detroit Medical Center, Detroit MI, USA ; [6]Medicine Division of Infectious Disease, Wayne State University, Detroit MI, USA

Objective: The US Food & Drug Administration (FDA) approved CPT for acute bacterial skin & skin structure infections (ABSSSI) & community-acquired bacterial pneumonia (CABP). CPT is indicated for ABSSSI caused by *S. aureus* (SA) including methicillin-susceptible (MSSA) & resistant (MRSA) strains. Limited clinical data exists for use outside these indications such as MRSA CABP and nosocomial pneumonia. Objective of this study was to describe the outcomes of patients (pts) treated with CPT for LRTI.

Methods: Retrospective observational analysis with pts receiving ≥ 72 hrs of CPT at 5 different hospitals from 2011 to 2013. Clinical & microbiological outcomes were analyzed. Clinical success (CS) was defined as infection resolved at the end of CPT & no additional therapy needed.

Results: 132 pts receiving CPT were included and 23% were within the FDA labeling and 77% were treated as off-label use. Fifty-two percent were nosocomial acquired LRTI and 48% were CABP. Median APACHE II was 12 (8-17). Most pts (86%) were initiated on CPT after receipt of another therapy, with 46% citing disease progression as a reason for switching. A total of 85 (64%) were culture positive, 89% of which were SA (70 were MRSA). Median CPT MIC for SA was 0.5 mg/L (0.5-1). For patients with SA bacteremia (SAB): 4 MSSA, 25 MRSA, & 1 vancomycin-intermediate *S. aureus*. Remaining cultures were 6 other Gram-positive & 16 Gram-negative bacteria. Of the SA infections, 24% (20/85) were polymicrobial with another bacteria. Of interest, 27/63 (43%) of CABP were caused by MRSA. Clinically, 101/122 (83%) achieved CS at the end of CPT therapy. Median duration of CPT was 7 days (4-10) and the most common CPT dose was 600mg q12h. 28% were given another antibiotic with CPT. Median length of stay was 18 days (10-26). For SAB, median time to bacterial clearance was 2 days (1-3). In hospital mortality was seen in 19 (19%) pts. 10 (8%) experienced an adverse event while on CPT and 5/72 (7%) were re-admitted for the same infection within 30 days after discharge.

Conclusions: The majority of pts treated with CPT for LRTI were for off-label use such as SAB, nosocomial-acquired LTRI, and MRSA CABP had favorable outcomes. Further research is necessary to clarify its clinical role in these infections outside its FDA approved label.