

P1626

Abstract (poster session)

### Activity of ceftobiprole tested against pathogens associated with community-acquired bacterial pneumonia in Europe

R.K. Flamm\*, H.S. Sader, R.N. Jones (North Liberty, US)

**Objective:** The activity of ceftobiprole (BPR) was studied against bacterial pathogens causing community-acquired pneumonia from European patients. Cefobiprole medocaril is an investigational broad-spectrum anti-MRSA cephalosporin which has been studied in hospitalized community-acquired bacterial pneumonia, hospital-acquired bacterial pneumonia, and complicated skin and soft tissue infections. **Methods:** *Streptococcus pneumoniae* (SP), *Haemophilus influenzae* (HI), and *Moraxella catarrhalis* (MC) were collected from 33 European medical centers during 2008 through 2010. Isolates were non-duplicate and deemed clinically relevant by the participants. Susceptibility (S) testing was performed for BPR and comparators by CLSI reference broth microdilution methods. The interpretive criteria applied were those published in CLSI and EUCAST documents. **Results:** BPR was highly potent against SP overall, with a MIC range of  $\leq 0.06$ -2 mg/L and MIC<sub>50/90</sub> at  $\leq 0.06/0.5$  mg/L. A total of 99.7% of isolates were at a MIC value of  $\leq 1$  mg/L. BPR was more active when tested against penicillin-S (MIC  $\leq 0.06$  mg/L) than penicillin-resistant (Pen-R; MIC  $\geq 2$  mg/L) isolates with MIC<sub>50/90</sub> values  $\leq 0.06/\leq 0.06$  and 0.5/0.5 mg/L, respectively. BPR was two-fold more active than ceftriaxone (MIC<sub>50/90</sub>,  $\leq 0.25/1$  mg/L) and cefepime (MIC<sub>50/90</sub>,  $\leq 0.12/1$  mg/L). A total of 36.9% of Pen-R SPN strains and 6.2% of all SPN were non-susceptible to ceftriaxone. BPR was highly active against HI exhibiting a MIC<sub>50/90</sub> of  $\leq 0.06/\leq 0.06$  mg/L overall, and for the beta-lactamase-positive and beta-lactamase-negative subsets. BPR was highly active against MC with a MIC range of  $\leq 0.06$ -0.5 mg/L and MIC<sub>50/90</sub> at  $< 0.06/0.12$ . **Conclusions:** Potent activity was demonstrated by BPR against leading community-acquired respiratory tract pathogens from numerous medical centers in Europe. The potency and spectrum of activity of BPR suggest that it merits further evaluation for its potential role for respiratory tract indications.

Organism (no.)	No. of isolates (cumulative %) inhibited at ceftobiprole MIC (mg/L) of:						MIC <sub>50</sub> /MIC <sub>90</sub>
	$\leq 0.06$	0.12	0.25	0.5	1	2	
<i>S. pneumoniae</i> (1867)	1403 (75.1)	42 (77.4)	108 (83.2)	292 (98.8)	17 (99.7)	5 (100.0)	$\leq 0.06/0.5$
penicillin-susceptible (1299)	1289 (99.2)	10 (100.0)	--	--	--	--	$\leq 0.06/\leq 0.06$
penicillin-intermediate (210)	113 (53.8)	32 (69.0)	51 (93.3)	14 (100.0)	--	--	$\leq 0.06/0.25$
penicillin-resistant (358)	1 (0.3)	0 (0.3)	57 (16.2)	278 (93.9)	17 (98.6)	5 (100.0)	0.5/0.5
<i>H. influenzae</i> (1023)	961 (93.9)	54 (99.2)	6 (99.8)	2 (100.0)	--	--	$\leq 0.06/\leq 0.06$
beta-lactamase-positive (156)	143 (91.7)	11 (98.7)	1 (99.4)	1 (100.0)	--	--	$\leq 0.06/\leq 0.06$
beta-lactamase-negative (867)	818 (94.3)	43 (99.3)	5 (99.9)	1 (100.0)	--	--	$\leq 0.06/\leq 0.06$
<i>M. catarrhalis</i> (283)	164 (58.0)	93 (90.8)	23 (98.9)	3 (100.0)	--	--	$\leq 0.06/0.12$