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Poster Session VI
Resistance surveillance: Gram-positives and others

ACTIVITY OF CEFTAROLINE AND COMPARATORS AGAINST PATHOGENS ISOLATED FROM SKIN AND SOFT TISSUE INFECTIONS IN THE EUROPEAN REGION – AWARE SURVEILLANCE 2012

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Objectives: *Staphylococcus aureus* (SA) causes 40-50% of skin and soft tissue infections (SSTI), with the remainder caused by various Gram-negatives, enterococci, β-hemolytic streptococci, and coagulase-negative staphylococci. Methicillin-resistant SA (MRSA) represents a large proportion of SSTI pathogens in many regions. Ceftaroline (CPT), the active metabolite of CPT-fosamil, is the first marketed cephalosporin with *in vitro* activity vs. MRSA. This report from AWARE, a global CPT surveillance study, summarizes the activity of CPT and comparators vs. common pathogens of SSTI in the European region in 2012.

Methods: Antimicrobial susceptibility of 4,531 pathogens from SSTI collected at 62 hospitals in 17 countries in the European region in 2012 (Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, The Netherlands, Portugal, Romania, Russia, Spain, Sweden, Turkey, and the United Kingdom). Testing was performed by CLSI broth microdilution and interpreted according to EUCAST guidelines. Extended-spectrum β-lactamases (ESBLs) were confirmed phenotypically according to CLSI methodology.

Results: Susceptibility percentages for selected species, as reported in the SmPC, and drugs are shown in the table below; values >=90% are shaded; na=no breakpoints, and '-' indicates not tested. S. aureus was the predominant pathogen in the collection; ESBL rates among *Escherichia coli* and *Klebsiella pneumoniae* were 22% and 44%, respectively.

Pathogen (n)	**CPT**	**AMC**	**CRO**	**FEP**	**TZP**	**LVX**	**MXF**	**TGC**	**PEN**	**CLI**	**VAN**	**DAP**	**LZD**
S. aureus (2,583)	95	na	na	-	Na	56	56	99	-	79	100	100	100
MRSA (1,467)	92	na	na	-	Na	27	27	99	-	66	100	100	100
MSSA (1,116)	100	na	na	-	Na	94	95	99	-	95	100	100	100
Streptococcus pyogenes (312)	100	100	100	-	100	96	100	100	100	96	100	100	100
Streptococcus agalactiae (93)	99	99	99	-	99	98	97	100	99	78	100	100	100
E. coli (349)	67	70	-	79	81	69	-	96	-	-	-	-	-
E. coli, non-ESBL (272)	85	79	-	97	89	81	-	96	-	-	-	-	-
K. pneumoniae (215)	46	53	-	53	48	56	-	76	-	-	-	-	-
K. pneu., non-ESBL (121)	80	82	-	90	78	82	-	79	-	-	-	-	-
K. oxytoca (74)	76	80	-	88	82	97	-	97	-	-	-	-	-
K. oxytoca non-ESBL (68)	81	85	-	93	88	99	-	97	-	-	-	-	-
Proteus mirabilis (121)	81	81	-	96	98	76	-	12	-	-	-	-	-
Morganella morganii (50)	74	4	-	92	94	74	-	24	-	-	-	-	-

CPT=ceftaroline, AMC=amoxicillin-clavulanate, CRO=ceftriaxone, FEP=cefepime, TZP=piperacillin-tazobactam, LVX=levofloxacin, MXF=moxifloxacin, TGC=tigecycline, PEN=penicillin, CLI=clindamycin, VAN=vancomycin, DAP=daptomycin, LZD=linezolid.

Conclusions: CPT was highly active *in vitro* against MRSA and MSSA. All drugs tested were very active *in vitro* vs. streptococci. CPT's activity vs. *E. coli* and *K. pneumoniae* was lower, due in part to relatively high ESBL rates, but was similar to that of AMC, FEP, and TZP.