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Abstract (poster session)

In vitro activity of tigecycline against global Gram-negative levofloxacin-resistant pathogens: TEST 2009-2011

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Background: Resistance to levofloxacin has risen since its introduction in clinical use, and cross-resistance with other antibacterial classes has been reported. The global Tigecycline Evaluation and Surveillance Trial (TEST) monitors the activity of tigecycline and comparators against multiple pathogens. This report describes the activity of tigecycline against levofloxacin-resistant gram-negative pathogens collected worldwide from 2009 - October 2011. Methods: A total of 32,433 gram-negative isolates were collected from various infection sources worldwide. Of those isolates, 8,180 (25%) were levofloxacin-resistant. MICs were performed as specified by CLSI at each site using custom broth microdilution panels and interpreted per CLSI/FDA guidelines. Results: MIC90 (mg/L) and percent susceptible (%S) of tigecycline against all isolates and levofloxacin-resistant isolates are shown below: na=breakpoint not defined; ESBL+=extended-spectrum beta-lactamase positive. Conclusions: Levofloxacin-resistant isolates comprised 25% of all clinical isolates, ranging from 6% in S. marcescens to 50% in A. baumannii, and up to 82% in ESBL+ E. coli. Tigecycline exhibited susceptibility >90% against levofloxacin-resistant E. coli and Klebsiella spp., including ESBL+ isolates, and >80% against all other studied levofloxacin-resistant pathogens for which breakpoints exist. MIC90 values for all and levofloxacin-resistant isolates were similar.

	All isolates			Levofloxacin-resistant		
Organism	n	MIC_{90}	%S	n	MIC_{90}	%S
A. baumannii	4350	2	na	2181	2	na
E. aerogenes	1645	2	95	193	4	81
E. cloacae	5987	2	95	733	4	82
E. coli	9037	0.5	99.9	3253	1	99.9
ESBL+	1528	0.5	99.9	1250	1	99.9
K. oxytoca	1606	1	99	129	2	95
ESBL+	66	2	97	30	2	97
K. pneumoniae	6793	2	95	1517	4	89
ESBL+	1526	2	92	909	4	90
S. marcescens	3015	2	93	174	4	76