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Abstract (poster session)

Comparison of tigecycline activity between Europe and North America against bloodstream isolates of Enterobacteriaceae; TEST Program 2008-2011

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Background: The Tigecycline Evaluation Surveillance Trial (TEST) monitors the activity of tigecycline and comparators against multiple pathogens collected worldwide. This report compares the antibiotic susceptibility of Enterobacteriaceae isolated from bloodstream infections from Europe with those from North America collected from 2008 to 2011. Methods: 10,066 Enterobacteriaceae were collected from Europe and North America between 2008 and 2011. MICs were performed as specified by CLSI at each site using prepared broth microdilution panels and interpreted according to EUCAST guidelines. Differences in ESBL rates and % susceptible were evaluated for statistical significance with the Fisher Exact Test. Results: Overall for *Escherichia coli*, *Klebsiella pneumoniae*, and *K. oxytoca*, ESBL rates were 17.1% in Europe and 5.2% in North America ($p < 0.0001$). MIC₉₀ (mg/L) and susceptibility results for Tigecycline are shown below. S=susceptible; *%S statistically significant ($p < 0.05$). **N-value too low to determine. Conclusions: Tigecycline exhibited strong in vitro activity against Enterobacteriaceae causing blood infections in both Europe and the USA. Significantly lower ESBL rates were found in North America compared to Europe. Only non-ESBL *E. coli* or non-ESBL *K. oxytoca* showed statistically significant differences in tigecycline susceptibility between the two continents with activity higher in Europe.

	Europe			North America		
	N	%S	MIC ₉₀	N	%S	MIC ₉₀
<i>Enterobacter</i> spp.	1495	88.2	2	620	85.2	2
<i>E. coli</i> , ESBL	424	98.6	0.5	52	96.2	1
<i>E. coli</i> , non ESBL*	2362	99.1	0.5	1203	97.5	0.5
<i>K. oxytoca</i> , ESBL	13	69.2	4	1	100.0	-**
<i>K. oxytoca</i> , non ESBL*	413	95.4	1	156	89.7	2
<i>K. pneumoniae</i> , ESBL	389	81.2	2	62	87.1	2
<i>K. pneumoniae</i> , non ESBL	1241	89.3	2	752	90.0	1
<i>Serratia</i> spp.	616	77.3	2	267	81.6	2