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ePoster Viewing

Resistance surveillance & epidemiology: Gram-negatives

Antimicrobial resistance patterns among Enterobacteriaceae isolated from outpatients in Latin America

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Background: *Enterobacteriaceae* cause serious infections in both hospitalized patients and patients seen in the outpatient setting. Resistance patterns once thought to primarily be associated with the hospital environment have begun to spread into the community/outpatient setting. Tigecycline European Surveillance Trial (TEST) program data were used to evaluate the *in vitro* activity of several key drugs against pathogens causing infections among outpatients from Latin America.

Material/methods: A total of 814 *Enterobacteriaceae* isolates were collected from outpatients in Latin America during 2010-2015. At each institution isolates were identified to the species level and were susceptibility tested by broth microdilution according to CLSI guidelines. Only one isolate per patient was accepted into the study. All data were collected centrally at IHMA for analysis using CLSI guidelines.

Results: The susceptibility (%S) of tigecycline and comparators are provided in the table below.

Organism	%S							
	AK ^a	AMC	CPM	CRO	LEV	MEM	PTZ	TGC
<i>E. aerogenes</i> (31)	100	9.7	74.2	67.7	77.4	93.6	87.1	87.1
<i>E. cloacae</i> (105)	93.3	1.9	81.9	61.9	79.1	97.1	79.1	92.4
<i>E. coli</i> (380)	94.2	52.6	73.7	63.4	51.1	98.2	87.4	99.5
ESBL-positive^b (82)	86.6	19.5	13.4	0.0	8.5	95.1	72.0	98.8
<i>K. oxytoca</i> (22)	100	68.2	77.3	72.7	72.7	100	77.3	95.5
ESBL-positive (3)	100	0.0	33.3	0.0	33.3	100	33.3	100
<i>K. pneumoniae</i> (199)	87.4	52.3	57.8	54.3	64.3	88.9	67.3	94.0
ESBL-positive (56)	67.9	8.9	3.6	0.0	39.3	80.4	33.9	92.9
<i>S. marcescens</i> (77)	89.6	0.0	80.5	70.1	81.8	100	81.8	92.2

^aAK-Amikacin; AMC-Amoxicillin-Clavulanate; CPM-Cefepime; CRO-Ceftriaxone; LEV-Levofloxacin; MEM-Meropenem; PTZ-Piperacillin-Tazobactam; TGC-Tigecycline

^bESBL- extended-spectrum β -lactamase

Conclusions: Based on %S the most active agents against the *Enterobacteriaceae* in this study were amikacin, meropenem and tigecycline. Tigecycline maintained activity against ESBL-positive *E. coli* and *Klebsiella* spp. The high rates of ESBL among *E. coli* (21.6%) and *K. pneumoniae* (28.1%) remain a cause for concern. These variations in antimicrobial susceptibilities and the increase in the antimicrobial resistance among *Enterobacteriaceae* emphasize the need for continued monitoring of antimicrobial profiles in this group of pathogens from outpatients in Latin America.