

**Antimicrobials: resistance surveillance****Activity of tigecycline and comparators against pathogens in Spain from patients with complicated intra-abdominal (IAI) and skin and soft tissue infections (SSTI) - TEST Data 2010-2014**

D. Hoban<sup>1</sup>, D. Sahm<sup>1</sup>, S. Bouchillon<sup>1</sup>, R. Badal<sup>1</sup>, M. Hackel<sup>1</sup>, B. Johnson<sup>1</sup>, F. Marco<sup>2</sup>, H. Leister-Tebbe<sup>3</sup>

<sup>1</sup>International Health Management Associates- Inc., Schaumburg- IL, USA

<sup>2</sup>Microbiology Department- ISGlobal, Barcelona Ctr. Int. Health Res. CRESIB, Hospital Clinic - Universitat de Barcelona, Barcelona, Spain

<sup>3</sup>Pfizer- Inc., Collegeville- PA, USA

**Objectives:** Gram-positive and – negative bacteria associated with IAI and SSTI can be difficult to eradicate, especially if they are resistant to the agents commonly used to treat these infections. Therefore it is important to monitor the susceptibility trends among the key species associated with IAI and SSTI. This analysis was done to evaluate the *in vitro* activity of tigecycline and comparator antimicrobials against clinically relevant IAI and SSTI pathogens collected from hospitalized patients in Spain.

**Methods:** The data were derived as a result of the TEST surveillance program 2010-2014. For this analysis 121 cumulative hospital sites in Spain collected 2248 gram-negative and gram-positive isolates (2010-2014) from patients with IAI or SSTI. Broth micro-dilution susceptibility testing was performed locally according to CLSI guidelines and results were interpreted according to EUCAST breakpoints.

**Results:** The *in vitro* activity of tigecycline and comparators against IAI and SSTI isolates combined is shown below.

Organism (n)	Antimicrobial: Percent Susceptible/MIC <sub>90</sub> (mg/L)							
	AMK	AMC	CRO	LVX	MEM	TZP	TGC	VAN
<i>Enterobacter cloacae</i> (426)	98.6/4	2.8/>32	72.8/>32	90.1/1	99.5/0.25	80.1/64	92.3/1	na
<i>Escherichia coli</i> (500)	97.8/8	62.4/32	81.0/>32	59.2/>8	100/0.12	86.0/32	99.8/0.25	na
<i>Klebsiella oxytoca</i> (105)	100/4	87.6/16	89.5/2	90.5/1	98.1/0.25	90.5/8	98.1/0.5	na
<i>Klebsiella pneumoniae</i> (241)	97.9/4	64.3/32	73.4/>32	72.6/>8	97.5/0.25	78.0/64	90.0/1	na
<i>Serratia marcescens</i> (125)	97.6/4	4.0/>32	85.6/2	89.6/2	97.6/0.25	95.2/8	74.4/2	na
<i>Enterococcus faecium</i> (115)	na	13.9/>8	na	15.7/>32	na	na	100/0.12	100/1
<i>Enterococcus faecalis</i> (145)	na	96.6/1	na	64.1/>32	na	na	100/0.25	98.6/2
<i>Staphylococcus aureus</i> (591)	na	na	na	56.4/16	na	na	100/0.25	100/1

na = breakpoints not defined or non-applicable

AMK=Amikacin, AMC=Amoxicillin-Clavulanate, CRO=Ceftriaxone, LVX=Levofloxacin, MEM=Meropenem, TZP=Piperacillin-Tazobactam, TGC=Tigecycline, VAN=Vancomycin

**Conclusions:** Against the gram-negative pathogens AMK, MEM, and TGC were the most potent agents, and against gram-positive TGC and VAN were the most active. However, the variability in activity of the other drugs underscores the need to continuously monitor the susceptibility patterns exhibited by the pathogens associated with IAI and SSTI.