

P0325

Paper Poster Session

Susceptibility trends for old and new antibiotics

In vitro activity of tigecycline and comparators against Gram-negative pathogens in France from patients with complicated intra-abdominal (IAI) and skin and soft tissue infections (SSTI)

Doug Biedenbach¹, Daniel Sahm¹, Meredith Hackel*¹, Heidi Leister-Tebbe²

¹International Health Management Associates, Inc., Schaumburg, Illinois, United States

²Pfizer, Inc., Collegeville, Pennsylvania, United States

Background: The Tigecycline European Surveillance Trial (TEST) monitors the in vitro activity of tigecycline and other antimicrobials against clinically-relevant pathogens collected globally. This study reports on the activity of tigecycline and comparators against IAI and SSTI isolates collected in France during the course of this surveillance study.

Material/methods: Non-duplicate clinical gram-negative isolates (3,198) from multiple medical centers in France were collected during 2004-2015 from IAI and SSTI specimens. Organism identification and antibiotic susceptibility testing was performed by the local laboratories. Susceptibility testing was performed using broth microdilution according to CLSI guidelines and categorical interpretation of results was done using EUCAST breakpoints.

Results: The table provides MIC_{50/90} and (%susceptibility) data for tigecycline and comparators against key pathogens.

Organism (n)	Tigecycline	Meropenem	Pip-Tazo	Levofloxacin	Amikacin
<i>C. freundii</i> (91)	0.25/0.5 (100)	≤0.06/0.12 (100)	2/64 (68.1)	0.06/1 (90.1)	2/4 (98.9)
<i>E. aerogenes</i> (150)	0.5/2 (86.7)	≤0.06/0.25 (96.9)	8/64 (59.3)	0.06/>8 (80.0)	2/4 (96.7)
<i>E. cloacae</i> (557)	0.5/2 (83.7)	≤0.06/0.25 (99.4)	4/>128 (62.8)	0.06/>8 (75.0)	2/8 (96.4)
<i>E. coli</i> (709)	0.12/0.5 (99.7)	≤0.06/≤0.06 (100)	1/16 (88.6)	0.03/>8 (81.2)	2/4 (97.9)
<i>K. oxytoca</i> (222)	0.25/1 (95.1)	≤0.06/≤0.06 (99.5)	1/128 (83.8)	0.06/0.5 (92.3)	2/4 (99.1)
<i>K. pneumoniae</i> (369)	0.5/2 (84.6)	≤0.06/0.12 (99.1)	4/128 (77.2)	0.06/8 (77.8)	2/4 (95.1)
<i>S. marcescens</i> (242)	1/2 (80.2)	≤0.06/0.12 (98.6)	2/16 (87.2)	0.12/2 (87.2)	2/4 (96.7)
<i>A. baumannii</i> (299)	0.12/1 (NA)	0.5/16 (83.1)	4/>128 (NA)	0.12/8 (64.9)	4/64 (79.6)
<i>P. aeruginosa</i> (559)	8/16 (NA)	1/8 (77.6)	4/128 (75.7)	1/>8 (63.7)	4/8 (90.7)

Conclusions: Based on percent susceptibility, meropenem, amikacin, and tigecycline exhibited the most potent *in vitro* activity against *Enterobacteriaceae* from France. Tigecycline was the most active agent, based on MIC₉₀, against *A. baumannii* and activities of other agents against *P. aeruginosa* was variable. Country specific monitoring of susceptibility patterns among common gram-negative pathogens provides useful information for determining if changes in treatment strategies should be considered.