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Abstract (poster session)

**Trends in tigecycline activity against Gram-negative respiratory pathogens: Asia/Pacific 2004-2010**

M. Hackel\*, D. Hoban, S. Bouchillon, J. Johnson, S. Hawser, M. Dowzicky (Schaumburg, US; Epalinges, CH; Collegeville, US)

Background: Tigecycline has been shown to have potent broad spectrum activity against gram-negative pathogens except *P. aeruginosa*. This report focuses on in vitro susceptibility trends of Asia/Pacific respiratory isolates using data from the Tigecycline Evaluation Surveillance Trial (TEST). Methods: 3,064 gram-negative clinical isolates from respiratory sources were collected from 49 sites in 11 countries in Asia/South Pacific. Minimum inhibitory concentrations (MICs) were determined by the local laboratory using supplied broth microdilution panels and interpreted according to FDA guidelines for tigecycline. Linear trends in % susceptible were assessed with the Cochran-Armitage test. Results: In vitro activity for tigecycline and key respiratory species by year are as follows: na: breakpoint not defined; ESBL+: extended-spectrum beta-lactamase positive; BL+: beta-lactamase positive \* Statistically significant decrease in % susceptible (p<0.05). Conclusions: Tigecycline demonstrated MIC90 values of <=2 mg/L against the majority of key gram-negative respiratory pathogens including several resistant phenotypes. In 2010, apart from *P. aeruginosa* against which tigecycline is known to have very limited activity, only ESBL+ *K. pneumoniae* showed an MIC90 of 4 mg/L and a % susceptible <90%. No statistically significant decrease in susceptibility was found between 2004 and 2010 for any tested species except *S. marcescens*. Even for this species, the % susceptible appeared to be increasing again in 2010. Tigecycline is not approved for the use in HAP infections.

Organism n by year	MIC <sub>90</sub> (mg/L) / % Susceptible						
	2004	2005	2006	2007	2008	2009	2010
<i>A. baumannii</i> 35/27/43/143/73/115/65	1/na	1/na	2/na	2/na	2/na	2/na	2/na
<i>E. cloacae</i> 21/24/29/62/53/82/41	1/100	2/95.8	2/96.6	2/93.6	4/88.7	2/96.3	1/97.6
<i>E. coli</i> 15/9/14/34/40/45/29	0.5/100	0.5/100	0.5/100	0.25/100	1/97.5	1/100	0.5/100
<i>E. coli</i> (ESBL+) 3/3/5/10/16/21/11	0.25/100	0.25/100	0.5/100	0.25/100	1/100	0.5/100	0.5/100
<i>H. influenzae</i> 63/50/157/195/1049/277	0.25/100	0.25/100	0.25/99.4	0.25/98.5	0.25/94.2	0.25/100	0.25/100
<i>H. influenzae</i> (BL+) 12/9/41/63/23/21/24	0.12/100	0.25/100	0.25/97.6	0.25/100	0.25/100	0.12/100	0.25/100
<i>K. pneumoniae</i> 45/32/50/109/77/115/33	1/97.8	2/90.6	2/96.0	2/95.4	2/90.9	2/91.3	2/90.9
<i>K. pneumoniae</i> (ESBL+) 13/13/17/23/19/34/6	1/100	4/76.9	2/100	1/95.7	1/100	4/85.3	4/83.3
<i>P. aeruginosa</i> 48/51/79/137/96/127/66	16/na	16/na	>16/na	16/na	>16/na	16/na	>16/na
<i>S. marcescens</i> 21/18/34/65/38/49/37	1/100	2/100	1/100	2/100	2/94.74	4/73.5	1/97.3*