28th ECCMID EUROPEAN CONGRESS OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES
Madrid, Spain
21 – 24 April 2018

P1119 Antimicrobial susceptibility profiles of Acinetobacter baumannii from Europe: TEST 2014-2017

Daryl Hoban[1], Meredith Hackel[1], Martha Renteria[1], Dan Sahm[1], Michael Dowzicky[2], Patricia A. Hogan[2]

[1]International Health Management Associates, Schaumburg, United States, [2]Pfizer, Collegeville, United States

Background: *Acinetobacter baumannii* has been recognized as an important opportunistic pathogen responsible for pneumonia, septicemia, urinary tract infections and meningitis, and is often associated with nosocomial outbreaks. Due to their capacity to acquire and accumulate resistance determinants, clinical isolates of *A. baumannii* are often multi-drug resistant and pose a therapeutic challenge. In this study, data from the Tigecycline European Surveillance Trial (TEST) program were analyzed to evaluate the activity of tigecycline and comparator antibiotics against recent (2014-2017) clinical isolates of *A. baumannii* from Europe.

Materials/methods: Between 2014 and 2017, 117 health care sites participated in the TEST program in 22 European countries. A total of 2,352 isolates of *A. baumannii* were identified to the species level and MICs determined at each participating laboratory using supplied broth microdilution panels according to CLSI guidelines. EUCAST breakpoint criteria were applied to define susceptibility and resistance where available (amikacin, levofloxacin, meropenem); CLSI breakpoints were applied for cefepime, ceftazidime, ceftriaxone, minocycline, and piperacillin tazobactam. There are no breakpoint criteria for tigecycline.

Results: Results are shown in the following table (%S= percent susceptible $MIC_{50/90}$ in mg/L).

Drug	%S	MIC_{50}	MIC_{90}	Minimum MIC	Maximum MIC
Tigecycline	na	0.5	2	≤0.008	8
Amikacin	45.6	32	>64	≤0.5	>64
Levofloxacin	29.9	8	>8	≤0.008	>8
Meropenem	35.3	>16	>16	≤0.06	>16
Cefepime	33.0	32	>32	≤0.5	>32
Ceftazidime	34.8	>16	>16	≤1	>16
Ceftriaxone	22.1	>32	>32	0.12	>32
Minocycline	71.1	2	16	≤0.5	>16
Pip-Tazo	33.6	>128	>128	≤0.06	>128

na = no breakpoint available

Tigecycline was the most potent agent tested vs. *A baumannii* with an MIC_{90} of 2 mg/L compared with MIC_{90s} of ≥16 mg/L for the other agents tested. In the absence of breakpoints for tigecycline, minocycline was the only antimicrobial agent with a susceptibility rate >70% against *A. baumannii.* The

in vitro activity of amikacin, meropenem, pip-tazo and the cephems was limited with susceptibility rates of 45% or lower.

Conclusions: These *in vitro* surveillance data for *A. baumannii* indicate that there are still few treatment options available for serious infections caused by this pathogen. Minocycline and tigecycline, tetracycline derivatives, were the most active agents. The availability of an effective treatment represents an unmet medical need. Continued monitoring for emerging resistance trends is warranted to improve patient management and to inform targeted new drug development.