

P0322

Paper Poster Session

Susceptibility trends for old and new antibiotics

In vitro activity of tigecycline and comparator agents against *Enterobacteriaceae* from intra-abdominal infection (IAI) isolates collected in Italy

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Background: *Enterobacteriaceae* cause serious intra-abdominal infections (IAIs) among hospitalized patients. Tigecycline European Surveillance Trial (TEST) program data were used to evaluate the *in vitro* activity of several key drugs against enteric pathogens causing IAI among patients from Italy.

Material/methods: A total of 441 *Enterobacteriaceae* isolates were collected from IAI sources in Italy during 2010-2015. Isolates were identified to the species level and MICs determined at each participating laboratory using supplied broth microdilution panels and following EUCAST guidelines. Only one isolate per patient was accepted into the study. All data were collected centrally at IHMA for analysis using EUCAST breakpoint criteria.

Results: The activities of drugs against all isolates and MDR (multidrug-resistant; resistant to drugs representing ≥ 3 drug classes) and for CRE (carbapenem-resistant *Enterobacteriaceae*) are provided in the table below.

Drug	<i>Enterobacteriaceae</i> (441)			MDR (216)			CRE (55)		
	% S	MIC ₅₀	MIC ₉₀	% S	MIC ₅₀	MIC ₉₀	% S	MIC ₅₀	MIC ₉₀
Tigecycline	87.8	0.5	2	79.2	0.5	2	52.7	1	4
Pip - Tazo	54.4	8	> 128	15.3	128	> 128	0.0	> 128	> 128
Meropenem	85.3	≤ 0.06	> 16	69.9	0.12	> 16	0.0	> 16	> 16
Levofloxacin	53.5	0.5	> 8	16.2	> 8	> 8	1.8	> 8	> 8
Cefepime	54.7	1	> 32	15.3	32	> 32	0.0	> 32	> 32
Amikacin	81.6	2	16	64.8	4	32	7.3	16	64

Overall the MDR rates and CRE rates in Italy among IAI *Enterobacteriaceae* isolates were 49% and 12.5%, respectively.

Conclusions: Based on percent susceptibility tigecycline was the most active agent against all IAI isolates, and against the MDR and CRE subpopulations. These variations in antimicrobial susceptibilities and the increase in the antimicrobial resistance among *Enterobacteriaceae* emphasize the need for continued monitoring of antimicrobial activities among *Enterobacteriaceae* from IAIs in Italy.