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Abstract (poster session)

An age analysis of the susceptibility of Gram-positive and Gram-negative pathogens from centres in the USA: TEST programme 2008-2010

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

Background: Tigecycline has been shown to have potent broad spectrum activity against most commonly encountered species responsible for community and hospital acquired infections. The Tigecycline Evaluation and Surveillance Trial (TEST) program determined the in vitro activity of tigecycline compared to most commonly prescribed broad spectrum antimicrobials against gram-negative and gram-positive species collected in the United States during 2008 to 2010. This report analyzes differences in susceptibilities in different age groups from this study. Methods: A total of 12,852 clinical isolates from 131 cumulative United States testing sites were identified to the species level. Age groups are defined as Pediatrics: 0-17; Young Adult: 18-34; Adult: 35-64; and >65; Geriatrics. Minimum Inhibitory Concentrations (MICs) were determined by each site using supplied broth microdilution panels and interpreted according to CLSI/FDA guidelines. Results: In general, tigecycline %S was very similar in the four age groups (pediatric, young adult, adult, and geriatric). Levofloxacin showed reduced activity against adult vs. pediatric isolates of *Acinetobacter* spp., Enterobacteriaceae, ESBLs, Enterococcus spp. and MRSA. *S. pneumoniae* penicillin susceptibility ranged from 63% for geriatric isolates to 60% for adults. All agents were active against *H. influenzae* and *S. agalactiae*. Conclusion: Although many drugs showed little difference in activity among patient age groups, overall susceptibility levels were generally higher in the pediatric and young adult groups than in adults and geriatrics. Some of the problematic therapy issues seen in older patients (VRE, reduced fluoroquinolone efficacy) are not as prevalent in younger patients, while others (ESBLs, MRSA) can be found across all age groups. Although the effectiveness of tigecycline in patients <18 years of age has not been established, tigecycline in vitro activity in this study demonstrates potent activity against ESBL, MRSA and enterococci often associated with serious infections of the various age groups evaluated.