66.026

In Vitro Potency of Tigecycline Against Pathogens from Most Common Body Sites: A Study in Asia/Pacific Rim

R. Badal 1,∗, M. Renteria 1, S. Bouchillon 1, B. Johnson 1, M. Hackel 1, J. Johnson 1, D. Hoban 1, M. Dowzicky 2

1 International Health Management Associates, Inc., Schaumburg, IL, USA
2 Wyeth Pharmaceuticals, Collegeville, PA, USA

Objectives: Surveillance studies can identify patterns of resistance and assist in empiric antibiotic choices as resistance can vary by organism and body site isolation. The Tigecycline Evaluation Surveillance Trial (T.E.S.T.) is an ongoing global study that can serve to help recognize resistance by body site. This report evaluates differences in susceptibility of strains from different body sites, collected in Asia/Pacific Rim 2004—2007.

Methods: 4,057 strains isolated from 8 specimen types were collected and identified from 2004 to 2007 at 23 hospitals in 9 countries in Asia/Pacific Rim. MICs for each strain were determined per CLSI guidelines at each facility using broth microdilution. MIC50/90 values were analyzed to identify any significant differences in antibiograms from different sources.

Results: Tigecycline (TIG) MIC50 values for almost all organism/specimen pairings were ±2 dilutions of each other, with no single source giving a higher MIC50 than others. The same was seen for TIG MIC90 values, which were almost always within 1—2 dilutions of the MIC50. Comparator drugs generally showed similar absence of variability in activity vs. isolates from various body sites; however, their MIC90/MIC50 ratios were usually much higher than those of TIG. Even imipenem had such high ratios with Acinetobacter and Entercoccus spp.

Conclusions: Bacteria isolated from more than 10 different body sites had generally similar antibiograms, with no single source showing significantly different sensitivity patterns. TIG demonstrated a broad spectrum of activity and consistently low MIC90/MIC50 ratios, including strains resistant to other drugs (MRSA, ESBL-producers, and imipenem-resistant Acinetobacter). doi:10.1016/j.ijid.2008.05.1072

66.027

Evaluation of 11 Antimicrobial Agents Against Australian Bacteremia Isolates: The T.E.S.T. Program

R. Badal 1,∗, S. Bouchillon 1, M. Hackel 1, J. Johnson 1, D. Hoban 1, B. Johnson 1, M. Renteria 1, M. Dowzicky 2

1 International Health Management Associates, Inc., Schaumburg, IL, USA
2 Wyeth Pharmaceuticals, Collegeville, PA, USA

Objectives: Tigecycline (TIG), a new glycylcycline, has been shown to have potent broad spectrum activity against most commonly encountered species responsible for community and hospital acquired infections. The T.E.S.T. program determined the in vitro activity of TIG and 10 comparators against bacteremia pathogens. Isolates were collected from 9 hospital sites in Australia throughout 2004—2007.

Methods: 533 bacteremia isolates were identified to the species level at participating sites and confirmed by the central laboratory. MICs were determined by each site using supplied broth microdilution panels and interpreted according to CLSI guidelines.

Results: Susceptibility of selected pathogens to tigecycline is summarized below.

Conclusions: TIG demonstrated a broad spectrum of antimicrobial activity, including Acinetobacter spp., Enterobacteriaceae (incl. ESBL phenotypes), S. aureus (incl. MRSA), S. pneumoniae (all phenotypes), and both Van-S and Van-R Enterococcus spp. The wide spectrum of activity of tigecycline provides enhanced antimicrobial coverage of pathogens causing bacteremia.

doi:10.1016/j.ijid.2008.05.1073

66.028

Efficacy of Tigecycline Against Worldwide Levofloxacin-Resistant Pathogens

R. Badal 1,∗, M. Renteria 1, S. Bouchillon 1, B. Johnson 1, M. Hackel 1, J. Johnson 1, D. Hoban 1, M. Dowzicky 2

1 International Health Management Associates, Inc., Schaumburg, IL, USA
2 Wyeth Pharmaceuticals, Collegeville, PA, USA

Objectives: Tigecycline (TIG) is the first member of the glycylcycline class of anti-infectives to be marketed, exhibiting a broad spectrum of antibacterial activity against many commonly-isolated pathogens. This study evaluates the in vitro activity of TIG versus levofloxacin (LEV)-resistant strains in a large set of isolates collected globally from 2004—2007.

Methods: 4,335 LEV-resistant isolates were identified to the species level at participating sites and confirmed by the central laboratory. MICs were determined by each site using supplied broth microdilution panels and interpreted according to CLSI guidelines.

Results: Percentages of LEV-resistant isolates susceptible to TIG are summarized in the table below.

Conclusions: LEV resistance was rare in this study, with less than 1% observed among the species evaluated. When resistance to LEV was seen, however, TIG retained activity in the vast majority of such strains. TIG’s broad spectrum of activity, including strains resistant to other drugs, makes it a valuable tool for treating serious infections caused by bacteria that may be refractory to treatment with commonly-used antimicrobials such as LEV.

doi:10.1016/j.ijid.2008.05.1074