Conclusions

The carbapenemase continue to show the widest overall antimicrobial resistance among the broad-spectrum agents reported in the MYSTIC Program. MBL was more potent than imipenem against the literature. The Carbapenemase were evaluated in both monobactams, and two-fold less potent against Acinetobacter spp. isolates.

The presence of carbapenemase isolates that had greater impact on susceptibility patterns and resistance rates among Acinetobacter spp., and Kluyvera spp.

The occurrence of carbapenemase-resistant isolates has decreased compared to prior year MYSTIC Program results even with the rise observed in the susceptibility and resistance rates among Acinetobacter spp. and selected broad-spectrum antimicrobial agents used in the empirical treatments of the most serious infections.

Acknowledgements

The MYSTIC Study was sponsored by Merck & Co., Inc. (Whitehouse Station, NJ). Acinetobacter spp. and other Gram-negative bacteria have intrinsic resistance mechanisms to β-lactams, and to an extent to other groups of antimicrobials. A recent study stablished the presence of carbapenemase-producing strains in the United States, and this has led to the routine use of carbapenems in many European countries, as well as in parts of Asia, South America, and Africa. However, the rate of resistance among these bacteria, and the potential clinical outcomes associated with these infections, are not well characterized. The MYSTIC Program is an international surveillance effort that collects and disseminates susceptibility data from a wide range of healthcare settings. This information is used to monitor trends in antimicrobial resistance, and to guide clinical decision-making. The MYSTIC Program includes participation from hospitals in the United States, Europe, and other regions of the world. The data collected through the MYSTIC Program is used to identify areas where resistance is increasing, and to develop strategies to combat this problem. The MYSTIC Program is a valuable resource for healthcare providers and researchers, and it is supported by Merck & Co., Inc. as a part of its commitment to improving patient care and public health.