Eight-Year Trends in Carbapenem Resistance Rates in the MYSTIC Program (USA; 1999-2006)

PR HOMBURG, JT KIRBY, HS SADER, TR FRITSCH, RN JONES
JMI Laboratories, North Liberty, IA, USA

INTRODUCTION

Infections such as bacteremia and pneumonia are frequently caused by Gram-negative bacilli, including Acinetobacter baumannii, Pseudomonas aeruginosa, and Klebsiella pneumoniae. Colonization and bloodstream infection with these bacterial species has increased in recent years. As a result, the clinical microbiology laboratory has become a pivotal arm of the healthcare team. The Mycomax surveillance program, (now the MYSTIC program), was created in 1996 to monitor antimicrobial susceptibility patterns of Gram-negative bacilli from across the USA. This program was envisioned to provide information for antimicrobial stewardship programs in healthcare facilities. The program is called the MYSTIC program because it is one of the many surveillance programs that monitor antimicrobial susceptibility patterns from across the USA. The program is designed to provide information for antimicrobial stewardship programs in healthcare facilities.

MATERIALS AND METHODS

The MYSTIC Program (now called the MYSTIC program) is a non-biased collection of antimicrobial susceptibility patterns from across the USA. The program is designed to provide information for antimicrobial stewardship programs in healthcare facilities.

RESULTS

• Against all the Enterobacteriaceae isolates tested in the MYSTIC Program, meropenem was the most potent carbapenem agent with a MIC90 16-fold lower than imipenem, but the overall resistance rate was 0.7% of Enterobacteriaceae (9,396 strains), with a 4.3% increase in resistance to carbapenemase-producing isolates (0.7%; KPC- and SME-types) in 2005-2006, with an overall resistance rate of 20.6% among non-fermentative Gram-negative bacilli (NFGNB) with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006, with an overall resistance rate of 20.6% among NFGNB with 7.2% R. Increased R to CARBs among ENT was observed in 2005-2006,