Expert Opin Pharmacother. 2010 Apr;11(5):779-88.

Treatment of Acinetobacter infections.

Michalopoulos A, Falagas ME.

ICU, Henry Dunant Hospital, Athens, Greece.

Abstract

IMPORTANCE OF THE FIELD: Acinetobacter baumannii has emerged as a major cause of healthcare-associated infections. It commonly presents resistance to multiple antimicrobial agents, occasionally including carbapenems and polymyxins, and hence, it is considered the paradigm of multidrug-resistant (MDR) or pandrug-resistant (PDR) bacterium. MDR A. baumannii is a rapidly emerging pathogen, especially in the intensive care setting, causing infections including bacteremia, pneumonia/ventilator-associated pneumonia (VAP), meningitis, urinary tract infection, central venous catheter-related infection, and wound infection.

AREAS COVERED IN THIS REVIEW: All potential antimicrobial agents that are available for the treatment of Acinetobacter infections are presented. Emphasis was given to the management of nosocomial infections due to MDR A. baumannii and its close relatives, spp. 3 and 13TU. Areas covered include bloodstream infections, pneumonia or VAP, meningitis, urinary tract infection, skin and soft-tissue or wound infections due to Acinetobacter.

WHAT THE READER WILL GAIN: The antibiotics that are usually effective against A. baumannii infections include carbapenems, polymyxins E and B, sulbactam, piperacillin/tazobactam, tigecycline and aminoglycosides. Carbapenems (imipenem, meropenem, doripenem) are the mainstay of treatment for A. baumannii, though carbapenem-resistant Acinetobacter strains have increasingly been reported worldwide in recent years. However, although well-designed trials of new therapeutic approaches are certainly required, the most important factor necessary to guide clinicians in their choice of empirical or targeted therapy should be knowledge of the susceptibility patterns of strains present in their own geographical area.

TAKE HOME MESSAGE: Pooled data suggest that infections caused by A. baumannii, especially those with inappropriate treatment, are associated with considerable attributable mortality. The optimal treatment for A. baumannii nosocomial infections has not been established, especially for MDR strains. Therefore, well-designed clinical studies are necessary to guide clinicians on decisions regarding the best therapeutic approach for patients with MDR A. baumannii infections. In addition, new experimental studies are warranted to evaluate the activity and safety of peptides and other novel antibacterial agents for A. baumannii infections.

PMID: 20210684 [PubMed - indexed for MEDLINE]