

A clinical update on Antibiotic Resistance Gram-negative bacteria in Malaysia- a review

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Abstract

Antibiotics are the wonder discoveries to combat microbes. For decades, multiple varieties of antibiotics have been used for therapeutic purposes in hospital settings and communities throughout the world. Unfortunately, bacteria have become resistant to commonly prescribed antibiotics. This review aims to explore the development, challenges, and the current state of antibiotic resistance available literature in Malaysia. Recently published data from Pubmed, Scopus, Google scholar's and other internet source publication on the antibiotic resistance of gram-negative bacteria were further reviewed and analysed in this study. This review reiterates the antibiotic resistance among the gram-negative bacteria is increasing and they are becoming resistant to nearly all groups of antibiotics. The antibiotic treatments are minimal and hard to treat in multi-drug resistance bacterial infection, resulting in morbidity and mortality. The prevalence rate of antibiotic resistance from the literature suggests that educating patients and the public is essential to prevent and control the spread of antibiotic resistance. In particular, there is an urgent need for a surveillance system of regular monitoring on the microbiomes, the discovery of novel antibiotics and therapeutic application of antibiotics are mandatory.

. **Keywords:** Antimicrobial resistance, Acinetobacter, Pseudomonas