

Abstract

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The resistance of *Pseudomonas* bacteria species to antibiotics

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This work was focused on summarising the basic knowledge on the resistance of *Pseudomonas* bacteria species to antibiotics, and the connection between their resistance and their diagnostics using new techniques, especially the mass spectrometry MALDI – TOF.

As an introduction to this very extensive topic, we included a chapter on the general characteristics of *Pseudomonas*, in order to clarify the mechanisms by which resistance to antibiotics arise. Part of this review also includes laboratory diagnosis using conventional phenotypic methods as well as new techniques, mainly using the mass spectrometry MALDI – TOF. A small and yet considerably significant section of the work includes chapters on the infections caused by the *Pseudomonas* species and their recommended therapies. The position of the *Pseudomonas* species as one of the nosocomial pathogens is generally made mention of in this work.

This review therefore, contains general information on *Pseudomonas* species that are related to their resistance to antibiotics, and mainly pertaining to their mechanisms of resistance and production of carbapenemases, which can be detected by MALDI – TOF techniques.

Keywords: PSEUDOMONAS, ANTIBIOTIC RESISTANCE, CARBAPENEMASES