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## Incidence of multi-resistant Acinetobacter and Pseudomonas isolates from clinical samples at the hospital complex in Jaen

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**Introduction & Aim:** The emergence and spread of antibiotic resistance among human pathogens is a relevant problem for human health. Virulent *Acinetobacter* and *Pseudomonas* are frequently life-threatening and often challenging to treat, so the emergence of multidrug-resistant isolates among these genera represents a critical problem. The aim of this study was to analyze the incidence of multi-resistant *Pseudomonas* and *Acinetobacter* isolates from clinical samples processed at the Hospital Complex of Jaén.

**Methodology:** Bacterial strains were isolated from clinical samples and subsequently identified by Malditoff (Matrix-Assisted Laser Desorption/Ionization Time-Of-Flight), with a Microflex series bench-top (Bruker, Bremen, Germany). Background antibiograms used as a reference guide for empirical selection of antibiotics were adopted to identify those strains with antibiotic multi-resistance.

**Results:** Acinetobacter baumannii and Pseudomonas aeruginosa accounted for nearly 50% of antibiotic multi-resistant isolates obtained during the study (25.9% and 23.4%, respectively). 100% of isolates identified as Acinetobacter baumannii were resistant to Ampicillin, Ticarcillin, Piperacillin / Tazobactam, Ceftazidime, Cefotaxime, Cefepime, Aztreonam, Doripenem, Ciprofloxacin, Levofloxacin and Tigecycline. More than 90% of the isolates were also resistant to Imipenem, Meropenem, Gentamycin and Amikacin. 100% of *Pseudomonas aeruginosa* isolates were resistant to Ampicillin, Cefotaxime, Tigecycline, Minocycline and Trimethoprim/Sulfamethoxazole. High percentages were also classified as resistant to all the carbapenemic antibiotics tested as well as to levofloxacin.

**Conclusions:** Results from the present study show a high prevalence of antibiotic multi-resistant *Acinetobacter* and *Pseudomonas* isolates, and corroborate the urgent need for new antibiotics.



## **Biography**

Morales Hervás Laura is a PhD student at the University of Jaén. Her research field is Antibiotic Resistance in clinical isolates.

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