HO-07: Prevalence and resistance profile of *Acinetobacter baumannii* isolated in the microbiology laboratory of the Regional Military University-Hospital of Constantine (HMRUC)

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Subject description: *Acinetobacter baumannii*, an opportunistic pathogen, emerged in the early 20th century. Over time, it has evolved by deploying antibiotic resistance mechanisms, making it a striking example of the evolution of microbial resistance. *A. baumannii* is identified as one of the nosocomial pathogens of greatest concern. In fact, in France, *Acinetobacter baumannii* is responsible for more than 90% of clinical isolates.

Objectives: The fundamental objective of this study is to isolate strains of *Acinetobacter baumannii* from samples received from different departments of a hospital in Constantine, identify them and then determine their resistance profiles to various antibiotics.

Methods: A comparative study (retrospective and prospective) was carried out on a sample of 86 strains of the *Acinetobacter* genus, including in particular 46 strains of the *Acinetobacter baumannii* species. These samples were collected between 2019 and 2023 from different samples, the majority of which were received from the intensive care unit (61.62%). The strains were isolated and identified by conventional methods in the microbiology laboratory. The resistance profile was established according to the CLCI recommendations.

Results and discussion: All bacteria present significant resistance to the majority of antibiotics such as β-lactams, aminoglycosides and fluoroquinolones, however, they remain sensitive to colistin with a percentage of 97.8%. These results obtained support the multiresistance nature of *Acinetobacter baumannii*.

Conclusion: Acinetobacter baumannii has become a global threat and poses enormous therapeutic problems for treating carrier patients. It is therefore essential to strengthen surveillance and apply good hospital hygiene practices as well as the rational use of antibiotics.

Keywords: *Acinetobacter baumannii*, multi-resistance, antibiotics, nosocomial, epidemiology.