

JOINT EVENT

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Epidemiology of multi-resistant bacteria in the hospital environment of high-risk infectious units, Ibn Tofail Hospital–University Hospital Center of MarrakechA Elmekes^{1,2}, K Zahlane¹, L Ait said¹, A Tadlaoui Ouafi¹ and M Barakate²¹Cadi Ayyad University, Morocco²Ibn Tofail Hospital–CHU, Morocco

The objective of this study is to analyze the qualitative and quantitative microbial composition of the environment of high risk infectious units at the Ibn Tofail hospital, CHU Mohammed VI, Marrakech. This is a prospective study carried out at four units (two operating units, two adult intensive care units Intensive Care Unit (ICU) of CHU Mohammed VI, Marrakech during a period of four months. The samples concerned inanimate surfaces and the hands of different staff. The level of antibiotic resistance was studied by the diffusion method agar medium. The choice of antibiotics and the criteria for interpretation of the antibiogram were made according to the standards of the European Committee on Antibiogram Susceptibility Testing (EUCAST). More than 95 bacterial strains were isolated from the 125 samples. The antibiotic resistance profile showed that 46% were multidrug resistant strain, 19% of them were *Acinetobacter baumannii* resistant to imipenem (ABRI), 17 % of the *Enterobacteriaceae* producing extended spectrum of beta-lactamase (ESBLE), and 8% were methicillin-resistant *Staphylococcus aureus* (MRSA). The lowest rate (4%) was obtained for *Pseudomonas aeruginosa* resistant to carbapenem (PARC). The ABRI was mainly found in the inanimate surfaces of ICU, the EBLSE were predominant in the surfaces of the operating units. However, the MRSA was isolated mostly from the staff handprints and the surfaces of the four studied units. The alarming presence of MDR bacteria in the hospital environment urges the hospital actors (biologists, hygienists, clinicians and nursing staff) to double their efforts to control these bacteria.

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