HP-28: Incidence of nosocomial infections in intensive care unit of the Regional Military University Hospital of Constantine

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Subject description: Nosocomial infections are particularly common in patients hospitalized in reanimation, compared to other areas of care.

Objectives: The objective of this study is to estimate the incidence of patients with nosocomial infection, identify the main microorganisms, determine the influence of the main risk factors, and the antibiotic resistance profile of the germs most often implicated in the reanimation.

Methods: This study is a descriptive, retrospective and prospective; started from 01 January 2020 to 5 May 2023.

Results and discussion: During the study period, 661 patients was hospitalized over 48 hours, 56 had a nosocomial infection, with an overall incidence of 08.47%. The average age of infected patients is 58.73 years and the H/F sex ratio is 02.29. The significant risk factors for NI acquisition are chronic pathologies (diabetes, Hypertension, hypothyroidism, etc.), with a rate of 62.5% (p = 0.045) and surgical interventions with a rate of 08.9% (p = 0.018). Three types of NIs are identified, with NP occupying the first place (30.59%), followed by NB (25.89%) and NUI (22.35%). The rate of patients with polyinfection is 15.29%.

The germs responsible are mainly Gram-negative bacteria, with 61.8% dominance. Identification of these bacteria revealed the presence of *A. baumannii*, *E. coli*, *K. pneumoniae*, *P. aeruginosa*, *C. freundii*, *M. morganii*, *B. cepacia*, *A. salmonicida*, *E. cloacae*, *P. mirabilis* and *H. influenzae*. Gram-positive bacteria account for only 36.7% and the palm is back to *Staphylococcus*, *Enterococcus* and *Streptococcus*. *Candida glabrata* is the only isolated yeast. Two types of resistance profile are observed, ESBL (63.63%) and MRB (36.36%).

Conclusion: Epidemiological surveillance of infections in resuscitation and the application of hygiene measures are priorities to be included in any nosocomial infection prevention program.

Keywords: risk factors, incidence, nosocomial infections, multidrug resistant bacteria.