

TITLE: STUDY OF PNEUMONIA ASSOCIATED WITH MECHANICAL VENTILATION IN AN INTENSIVE CARE UNIT OF A HOSPITAL IN THE NORTH OF THE STATE OF RIO GRANDE DO SUL

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ABSTRACT:

Ventilator-associated pneumonia (VAP) is defined as pneumonia occurring more than 48 hours after endotracheal intubation and mechanical ventilation (MV) initiation. It is the most prevalent infectious complication in intensive care, with rates ranging from 9% to 40%. VAP is related to an increase in hospitalization period, affecting hospital costs significantly. A retrospective cohort study was carried out and its objective was to study VAP in an Intensive Care Unit (ICU) in a hospital in the north of the state of Rio Grande do Sul, from January 2017 to December 2019. Data was performed by analyzing the medical records of patients who were included in the study. The inclusion criteria were all patients admitted to the adult ICU who developed pneumonia after 48 hours or more of mechanical ventilation and the medical records were made available through the institution Hospital Infection Control Service (SCIH), containing variables for the composition of the study. A descriptive analysis of all study variables presented through tables was performed, and the non-parametric Mann-Whitney test was used for numerical variables. The VAP rate found was 6.3% (55 patients), and the associated risk factors were age over 60 years, time on MV greater than 10 days, male gender and presence of obstructive pulmonary disease chronic. The most prevalent microorganism isolated in the culture of lower tract respiratory secretions and also one of the microorganisms with the greatest impairment by the mortality rate (66.7%) was *Escherichia coli*. Regarding age group, it was shown a statistically significant difference between the groups in the outcome (death or discharge), since the mean age of patients who died (71.17 years) is higher than the mean age of patients who were discharged (60.94 years). In this context, measures to prevent VAP in the ICU must be implemented and maintained, with continuous assessment, which can certainly contribute to reducing rates and promoting quality and safety in patient care.

Keyword: pneumonia, mechanical ventilation, ICU