

TITLE: THE EFFECTIVENESS EVALUATION OF A BUNDLE IN THE PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA IN THE INTENSIVE CARE UNIT ADULT

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ABSTRACT

Ventilator-associated pneumonia (VAP) is a health care related infection and the second leading cause of nosocomial infections linked to morbidity and mortality rates. Therefore, the implementation of care guideline protocols has become necessary for critically ill patients in Intensive Care Unit (ICUs) in order to provide adequate treatment. The aim of this study is to evaluate the impact of a bundle called FAST HUG in PAV, analyze the risk factors for occurrence of VAP in adult patients at an ICU of a hospital; analyze the clinical characteristics of patients who were or were not submitted to the FAST HUG; analyze the etiology of microorganisms related to EPI; determine the cost of hospitalization in patients with pneumonia and in patients who received the FAST HUG. The study was performed in a private hospital that has an 8-bed ICU. It was divided into two phases: before implementing FAST HUG, from August 2011 to August 2012 and after the implementation of FAST HUG, from September 2012 to December 2013. An individual form for each patient in the study was filled out by using information taken electronically from the hospital medical records. The following data for each patient was obtained: age, gender, reason for hospitalization, the use of three or more types of antibiotics, length of stay, intubation time and progress. After the implementation of FAST HUG, there was an observable decrease in the occurrence of VAP ($p < 0.01$), as well as a reduction in mortality rates ($p < 0.01$). It also shows that the intervention performed in the study resulted in a significant reduction in ICU hospital costs ($p < 0.05$). The implementation of FAST HUG reduced the cases of VAP. Thus, decreasing costs, reducing mortality rates and length of stay, which therefore resulted in an improvement to the overall quality of care.

Keywords: Ventilator-associated pneumonia, bundle, intensive care unit, cost, mortality
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