Ventilator Associated Pneumonia at Hadassah University Hospital

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Abstract

Background: Ventilator-associated pneumonia (VAP) is the most common nosocomial infection in mechanically ventilated patients. VAP is associated with considerable morbidity, including prolonged ICU length of stay, prolonged mechanical ventilation, and increased costs of hospitalization. Implementation and adherence to VAP preventing protocols can reduce VAP rates however it has been shown that educational interventions, continuous supervision and feedback are essential for a significant and stable reduction in VAP rates, even years after the intervention.

Design: A prospective, observational and analytical study for mechanically ventilated patients, who are older than 18 years old at Hadassah Medical Center.

Goal: To evaluate the VAP rates in Hadassah Medical Center and to examine the influence of an educational intervention on these rates.

Study hypothesis: VAP rates in Hadassah Medical Center will be similar to those reported in the literature and an educational intervention will lead to a decrease in VAP rates.

Methods: In this study, we assessed the rates of VAP within the participating departments based on the CDC clinical diagnostic criteria throughout the period of study. In addition, we compared rates of VAP prior to and following an educational intervention led by the Department for Infectious Diseases. The study was conducted at Hadassah Medical Center in Jerusalem, Israel. The study included adult patients who were on mechanical ventilation during the survey.

Results: The rates of Ventilator Associated Pneumonia were 18 per 1000 ventilator days throughout the study period. There was no significant reduction in the VAP rates before and after the implementation of an educational intervention. Thereby, our hypothesis was not affirmed in this study.

Conclusion: Even though educational initiatives are essential and affordable methods for reducing nosocomial infection rates, it seems that adherence rates to VAP prevention protocols must be maximal in order to show significant reduction in VAP rates.
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