

## Identification of the Bacteria Cause of Ventilator Associated Pneumonia from the Patients who Have Been Hospitalized in the Intensive Care Unit of Shahid Rejaei Hospital of Tonekabon

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**Background & Objectives:** Ventilator Associated Pneumonia is the most prevalent of the mortality of patients in the ICU. Risk of infection with this disease is 3 to 10 times more than the patients who have been hospitalized in the other wards. The objective of this study was to identify the bacteria cause Ventilator Associated pneumonia in the patients who have been hospitalized in the ICU of the Shahid Rejaei hospital of Tonekabon.

**Methods:** The present study has been carried out between January 2010 and December 2011 amongst a group of 35 patients hospitalized in the ICU of the Shahid Rejaei hospital of Tonekabon who had used the mechanical ventilation. After the drawing out of the Nedorator from the patient's lung, 1cm of the tube was cut by the sterile scissor and transferred into the brain heart infusion broth and incubated for 48 hours under 37°C. Following the incubation period samples was transferred to the blood agar and DNA extraction was carried out using the phenol-chloroform's technique through the appearance of the grown colonies. In order to reproduce the DNA, the PCR test was performed using the 16s rRNA universal primers. The PCR's product was sequenced in order to identify the isolated bacteria.

**Results:** Out of thirty five sample collection, 63 strain of bacteria isolates 38 had belonged to *Staphylococcus aureus*, 15 to *Pseudomonas aeruginosa*, 7 to *Klebsiella pneumoniae*, 1 to *Acinetobacter hemolyticus*, 1 to *Staphylococcus lungodensis* and 1 to *Morganella morgani* species.

**Conclusion:** The results obtained from the current research show that *staphylococcus aureus* and *Pseudomonas aeruginosa* are from the amongst the most prevalent bacteria of the Ventilator Associated pneumonia. Identification and survey the rate of the frequency of the bacteria cause the hospital pneumonia in order to determine the therapeutic strategy in the initial confrontation and infection control is regard as a necessity.

**Keywords:** Pneumonia; ICU; Ventilator; Prevalence