Introduction:
Ventilator-associated pneumonia is the most common nosocomial infection diagnosed in adult critical care units. It is associated with prolonged duration of mechanical ventilation, increased ICU stay and increased mortality. It continues to be a major challenge to the critical care physicians despite advances in diagnostic and treatment modalities. The primary objective of the study was to determine the compliance of ICU staff towards VAP prevention bundle and secondary objective was to determine the incidence, risk factors and outcome of VAP patients.

Methods:
Single center, prospective, observational study carried out from February 2017 to July 2018. Patients mechanically ventilated for more than 48 hours and satisfying the inclusion and exclusion criteria were enrolled in the study. VAP was diagnosed using the CDC criteria and clinical pulmonary infection score. VAP preventive strategies were employed and compliance of ICU staff was assessed.

Results:
A total of 1617 patients were admitted to ICU over the set time period and out of them 483 patients were ventilated for more than 48 hours. Among them only 166 patients fulfilled the inclusion and exclusion criteria and were enrolled in the present study. Excellent compliance was observed in head end elevation, sedation vacation, stress ulcer prophylaxis, and heat moist exchanger filter use, good compliance in oral care and hand hygiene and moderate to poor compliance in subglottic suctioning. The incidence of VAP was 24.7% with a VAP rate of 30.87/1000 ventilator days. There was a significant correlation between primary diagnosis, hemodialysis, massive blood transfusion and development of VAP (p<0.05)). Mean duration of ventilation (p<0.001) and mortality (p<0.05) were highly significant in VAP patients.

Conclusion:
Improvement in compliance towards VAP bundle and reduction of risk factors can help decrease incidence of VAP and related morbidity and mortality.