



## Service Priorities and Programmes Electronic Presentations

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### **Review on Ventilator-Associated Pneumonia (VAP) in NTWC Trauma Patients in 2009 - 2013**

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#### **Keywords:**

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#### **Introduction**

Ventilator-associated pneumonia (VAP) is one of the most common nosocomial infections among critically ill and injured patients; trauma patient required mechanical ventilation was even at higher risk to acquire VAP. Moreover, VAP was related to an excess attributable mortality and morbidity, increased ICU length of stay and the duration of mechanical ventilation, as well as with the additional costs of health care services. As a result, a review on VAP in NTWC trauma patient in 2009 to 2013 has been conducted.

#### **Objectives**

To review the number of VAP case in trauma patient in 2009 -2013 To review any special characteristics of those VAP cases

#### **Methodology**

All trauma patients who required mechanical ventilation within the year of 2009 to 2013 were retrieved from NTWC Trauma Database, and their corresponding clinical records were reviewed. In order to standardize the diagnosis of VAP, Clinical Pulmonary Infection Score (CPIS) was adopted; it is a simple and widely used tool to incorporate readily available clinical information, which includes temperature, white blood cell count, tracheal secretion, PaO<sub>2</sub>/FiO<sub>2</sub> and chest radiograph. Then, an excel-based registry was developed to facilitate data collection; several essential components were input including the parameter and pneumonia onset time

#### **Result**

**Result** There were totally 149 trauma patients who had mechanical intubation from 2009 to 2013. Among these, 100 cases were male while 49 cases were female. In these cases, 9.4% of patients (n=14) developed VAP, which 29% were early onset (n=4) and 71% cases were late onset (n=10). After analyzing these 14 cases, mostly related to traffic incident (8 cases) and got multiple injuries. Head injury was the commonest injury (12 cases), while chest injury had 5 cases. Death rate of patient who

acquired VAP was 57% (n=8) Conclusion Endotracheal intubation and mechanical ventilation were life-saving procedures that frequently performed in the Accident and Emergency Department (AED) to those critically ill and trauma patient. To minimize the risk of VAP development, apart from the endotracheal tube caring during the hospital stay, the initial intubation technique and nursing care is also critical. Measures in preventing VAP should start as early as possible in order to provide better quality of patient care