ABSTRACT

PREVALENCE OF VENTILATOR-ASSOCIATED PNEUMONIA (VAP) IN
DR SOETOMO GENERAL HOSPITAL SURABAYA

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Background: Ventilator-associated pneumonia (VAP) is one of the most common nosocomial infection in the Intensive Care Unit (ICU). VAP can occur early onset or late onset. Mechanically ventilated patients have a higher risk of VAP. VAP can increases morbidity, mortality and also treatment cost. But in fact, Indonesia has lack of data about VAP.

Objective: To find out the prevalence of ventilator-associated pneumonia (VAP) in Dr. Soetomo General Hospital, Surabaya, in the period of August 2017 until August 2018.

Methods: A cross-sectional study by assessing medical records of the patients in ICU based on inclusion and exclusion criteria.

Results: A total of 18 VAP patients were diagnosed. VAP rate was 0 – 18.69 per 1000 ventilator days period August 2017 - August 2018. VAP patients were dominated by adult group (50%), male (55.6%). The mean length of ICU stay (LOS_{ICU}) was 22.83 ± 11.24 days and mortality of VAP patients were high (55.6%). Based on clinical data, 22.22% of VAP patients were shown infiltrate from thorax imaging, 38.89% had a fever (> 38°C) and 72.22% were leukocytosis. Klebsiella pneumoniae was the most common bacteria causing VAP (30%). 30% of VAP patients had Guillain-Barre Syndrome (GBS) as the main diagnosis and 16.65% had Congenital Heart Disease (CHD). The highest complication was the septic shock (33.33%). The most frequent of comorbidities patients had were Type 2 Diabetes Mellitus (T2DM) and tetraplegia (16.67% each).

Conclusion: The VAP rates in Dr. Soetomo General Hospital Surabaya ranges from 0-18.69 per 1000 ventilator days. Most of VAP patients are adult, male, had prolonged stay. The mortality of VAP patients is still high. But the clinical data that have been found are still not complete (about 66.67%). So, it still needs further studies.

Keywords: Ventilator-associated pneumonia, prevalence, Surabaya, mechanical ventilation, nosocomial infection