Title: A retrospective study on ventilator-associated pneumonia among pediatric intensive care unit patients admitted in a tertiary hospital in Cebu City, Philippines

Mary Antonette 1563 Lozada maryantoniettelozada@yahoo.com MD. † Pediatrics, Chong Hua Hospital, Cebu City, Cebu, Philippines.

Body: Background Diagnosing Ventilator–Associated Pneumonia (VAP) is a diagnostic dilemma. Several studies have been done and yet the epidemiology of VAP are not well documented in pediatric patients. Methodology This is a retrospective cross-sectional, descriptive study conducted in a private tertiary hospital in Cebu City to all PICU patients mechanically ventilated for ≥48 from 2006 to 2010. Patients were excluded if transferred to another institution. The incidence of VAP was determined using the clinical criteria established by Centers for Disease Control and Prevention (CDC) and National Nosocomial Infections Surveillance (NNIS). Results A total of 132 patients were enrolled. Of the study population, only one patient was diagnosed with VAP. However, when charts were reviewed, it was found that 19 more patients fulfilled the criteria for the diagnosis of VAP. This made a total of 20 (15.2%) patients with VAP. VAP rate was 0.98 per 1000 ventilator days. Risk factors for the development of VAP included inhaled bronchodilators (p<0.001) and systemic steroids (p=0.003), enteral feeding (p<0.001), reintubation (p<0.001), and positive blood culture (25% vs 3.6%, p=0.004). The occurrence of VAP was significantly associated with prolonged PICU stay (24 vs 14, p<0.001) and hospital stay (38.5 vs 14, p<0.001). Prolonged ventilator days (OR:1.109, 95% CI:1.06-1.16) is independently associated with VAP. Conclusion The local incidence of VAP among ventilated patients in the PICU is very low because of a dilemma in the diagnosis of VAP. Longer need for mechanical ventilation predisposed to the development of VAP.