

## ABSTRAK

# INSIDENSI INFEKSI NOSOKOMIAL PNEUMONIA TERMASUK VENTILATOR-ASSOCIATED PNEUMONIA PADA PASIEN ANAK DI RSUP DR. SARDJITO

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**Latar Belakang:** Pneumonia di Indonesia masih menduduki peringkat kedua sebagai penyebab kematian bayi dan balita. Pneumonia merupakan penyakit akut ditandai dengan infeksi (peradangan) jaringan paru-paru disertai infiltrasi alveolus berisi campuran eksudat inflamatorik dan sel darah putih oleh infeksi mikroorganisme (bakteri, jamur, dan virus). Infeksi ini merugikan karena menyebabkan durasi inap pasien lebih panjang, beban ekonomi, dan mematikan. Salah satu jenis infeksi nosokomial adalah *Ventilator Associated Pneumonia* (VAP), terjadi dalam 48 jam atau lebih setelah dipasang ventilator dengan bantuan mekanis. Sangat penting mengetahui data insidensi pneumonia nosokomial dan *Ventilator Associated Pneumonia* terbaru untuk bisa mengetahui lebih banyak dan melakukan pencegahan serta pengendalian VAP yang lebih baik.

**Tujuan:** Untuk mengetahui insidensi infeksi nosokomial pneumonia termasuk *Ventilator Associated Pneumonia* pada pasien anak di RSUP Dr. Sardjito, Yogyakarta periode Maret 2016 - Maret 2018.

**Metode:** Penelitian kohort retrospektif menggunakan data rekam medik pada bangsal anak dan *pediatric ICU* RSUP Dr. Sardjito dari tahun 2016 hingga 2018. Penelitian mengeksklusi data yang tidak lengkap. Sampel yang digunakan adalah *total sampling* diagnosis pneumonia berdasarkan berdasarkan kriteria *Centers for Disease Control and Prevention* (CDC). Data dikumpulkan, diolah, dan dianalisis secara univariat menggunakan program SPSS.

**Hasil:** Insidensi kejadian infeksi nosokomial pneumonia (HAP) termasuk VAP pada anak di RSUP Dr. Sardjito, Yogyakarta pada bulan Maret 2016 hingga Maret 2018 adalah 3,98 % dan 1,69%. Setiap 1.000 hari rawat inap, terjadi sekitar 3,72 kasus HAP. Sedangkan setiap 1.000 hari penggunaan ventilator, terjadi 30,60 kasus VAP.

**Kesimpulan:** Insidensi infeksi nosokomial pneumonia (HAP) pada anak di RSUP Dr. Sardjito, Yogyakarta lebih tinggi dibandingkan standar Permenkes No. 129/Menkes/SK/II/2008. Sementara itu, *cumulative incidence Ventilator-Associated Pneumonia* (VAP) lebih rendah dibandingkan negara berkembang lainnya, tetapi masih di atas negara maju, sedangkan *incidence density* VAP tergolong tinggi dibandingkan negara berkembang lain.

**Kata Kunci :** Insidensi, infeksi nosokomial, pneumonia, ventilator, anak

## ABSTRACT

### INCIDENCE OF NOSOCOMIAL PNEUMONIA INFECTION, INCLUDING VENTILATOR-ASSOCIATED PNEUMONIA, IN PAEDIATRIC PATIENTS AT RSUP DR. SARDJITO

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**Background:** Pneumonia remains the second leading cause of mortality among infants and young children in Indonesia. It is an acute disease characterised by an infection (inflammation) of lung tissue, accompanied by alveolar infiltration filled with a mixture of inflammatory exudate and white blood cells due to microbial infection (bacteria, fungi, and viruses). This infection is detrimental as it prolongs hospitalisation, imposes an economic burden, and can be fatal. One type of nosocomial infection is Ventilator-Associated Pneumonia (VAP), which occurs 48 hours or more after mechanical ventilator support is initiated. Understanding the latest incidence data on nosocomial pneumonia and Ventilator-Associated Pneumonia are crucial to improving prevention and control measures.

**Objective:** To determine the incidence of nosocomial pneumonia infection, including Ventilator-Associated Pneumonia, in paediatric patients at RSUP Dr. Sardjito, Yogyakarta, from March 2016 to March 2018.

**Methods:** This retrospective cohort study utilised medical record data from the paediatric ward and paediatric intensive care unit (PICU) at RSUP Dr. Sardjito from 2016 to 2018. Incomplete data were excluded from the study. The sample was obtained using total sampling of pneumonia cases based on the Centers for Disease Control and Prevention (CDC) criteria. Data were collected, processed, and analysed using univariate analysis in SPSS.

**Results:** The incidence of nosocomial pneumonia infection (HAP), including VAP, in paediatric patients at RSUP Dr. Sardjito, Yogyakarta, from March 2016 to March 2018 was 3.98% and 1.69%, respectively. For every 1,000 patient-days, approximately 3.72 cases of HAP occurred. Meanwhile, for every 1,000 ventilator-days, 30,60 cases of VAP were observed.

**Conclusion:** The incidence of hospital-acquired pneumonia (HAP) in children at Dr. Sardjito General Hospital, Yogyakarta, is higher than the standard set by Ministry of Health Regulation No. 129/Menkes/SK/II/2008. Meanwhile, the cumulative incidence of Ventilator-Associated Pneumonia (VAP) is lower than in other developing countries but remains higher than in developed countries, whereas the incidence density of VAP is relatively high compared to other developing countries.

**Keywords :** Incidence, nosocomial infection, pneumonia, ventilator, paediatrics