

## **FAKTOR PREDIKTOR KEBUTUHAN TATALAKSANA INTENSIF PASIEN ANAK DENGAN PNEUMONIA**

**Dhany Irvandi\*, Eggi Arguni\*\*, Amalia Setyati\*\*\***

\* Residen Ilmu Kesehatan Anak, Fakultas Kedokteran, Kesehatan Masyarakat, dan Keperawatan Universitas Gadjah Mada, Yogyakarta, Indonesia

\*\* Infeksi dan Penyakit Tropis, Ilmu Kesehatan Anak, Fakultas Kedokteran, Kesehatan Masyarakat, dan Keperawatan Universitas Gadjah Mada, Yogyakarta, Indonesia

\*\*\* Respirologi, Ilmu Kesehatan Anak, Fakultas Kedokteran, Kesehatan Masyarakat, dan Keperawatan Universitas Gadjah Mada, Yogyakarta, Indonesia

### **INTISARI**

**Latar belakang:** Pneumonia merupakan penyebab utama morbiditas dan mortalitas pada anak. Beberapa anak yang mengalami pneumonia membutuhkan tatalaksana intensif. Beberapa faktor prediktor kebutuhan tatalaksana intensif telah diteliti sebelumnya, namun menunjukkan hasil inkonsisten.

**Tujuan:** Mengetahui faktor prediktor kebutuhan tatalaksana intensif pasien anak dengan pneumonia.

**Metode:** Dilakukan studi kohort retrospektif dengan subyek anak berusia 1 bulan-18 tahun dengan pneumonia yang dirawat di RSUP Dr. Sardjito periode April 2020-Desember 2020 yang memenuhi kriteria inklusi dan eksklusi. Sampel diambil secara *convenience sampling*. Analisis bivariat untuk menghitung nilai p serta analisis multivariat dengan regresi logistik. Hubungan antar variabel dinyatakan dengan *odds ratio* (OR) dan interval kepercayaan 95% dengan tingkat kemaknaan statistik  $p < 0,05$ .

**Hasil:** Seratus enam subyek diikutsertakan dalam penelitian ini, dengan median usia 24 (1-206) bulan. Angka kebutuhan tatalaksana intensif sebesar 36,8%. Pada analisis multivariat didapatkan hipoksemia yaitu kadar  $\text{SaO}_2 < 92\%$  (*adjusted* OR=6,849; IK95%=2,692-17,429;  $p < 0,001$ ) merupakan faktor prediktor independen kebutuhan tatalaksana intensif anak dengan pneumonia.

**Kesimpulan:** Hipoksemia merupakan faktor prediktor independen terhadap kebutuhan tatalaksana intensif pasien anak dengan pneumonia.

**Kata kunci:** Pneumonia, faktor prediktor, tatalaksana intensif

## **PREDICTIVE FACTORS OF THE NEED FOR INTENSIVE TREATMENT IN CHILDREN WITH PNEUMONIA**

**Dhany Irvandi\*, Eggi Arguni\*\*, Amalia Setyati\*\*\***

\*Pediatric Resident, Department of Child Health, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

\*\*Division of Pediatric Infectious and Tropical Disease, Department of Child Health, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

\*\*\*Division of Pediatric Respiriology, Department of Child Health, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

### **ABSTRACT**

**Background:** Pneumonia is a major cause of morbidity and mortality in children. Some children with pneumonia require intensive treatment. Several predictors of the need for intensive treatment have been studied previously, but showed inconsistent results.

**Objective:** To determine predictive factors of the need for intensive treatment in children with pneumonia.

**Methods:** A retrospective cohort of children aged 1 month-18 years with pneumonia that were admitted in Dr. Sardjito Hospital during April 2020-December 2020 who met the inclusion and exclusion criteria. Samples were taken by convenience sampling. Bivariate analysis to calculate p-value and multivariate analysis with logistic regression was conducted. The relationship between variables was presented as odds ratio (OR), 95% confidence interval (95% CI), and statistical significance level  $p < 0.05$ .

**Results:** One hundred and six children with pneumonia were included, with a median age of 24 (1-206) months. 36.8% need intensive treatment. Multivariate analysis showed hypoxemia (adjusted OR=6,849; 95%CI=2,692-17,429;  $p < 0,001$ ) was an independent predictor of the need for intensive treatment in children with pneumonia.

**Conclusions:** Hypoxemia was an independent predictor of the need for intensive care in children with pneumonia.

**Keywords:** Pneumonia, predictive factor, intensive treatment