

ABSTRAK

HUBUNGAN KADAR OBAT GENTAMISIN DALAM DARAH TERHADAP LUARAN KLINIS PASIEN PNEUMONIA ANAK DI RSUD AJIBARANG

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Latar Belakang : Gentamisin merupakan obat dengan indeks terapi sempit yang perlu dilakukan pemantauan kadar obat dalam darah karena dapat berpengaruh pada luaran klinis pasien. Metode pendekatan farmakokinetika dapat digunakan sebagai cara untuk memperkirakan kadar gentamisin agar mencapai efek terapi yang diharapkan.

Metodologi : Penelitian ini merupakan penelitian dengan desain observasional dan menggunakan data *retrospektif*. Pengumpulan data rekam medis pasien pneumonia anak dilakukan selama 3 bulan dengan data rekam medik pasien rawat inap di RSUD Ajibarang. Analisis data yang digunakan adalah univariat dan bivariat dengan uji *chi square* untuk melihat hubungan kadar obat gentamisin dalam darah terhadap luaran klinis pasien pneumonia.

Hasil Penelitian: Sebanyak 54 pasien memenuhi kriteria inklusi. Kombinasi antibiotik yang diberikan pada pasien pneumonia anak paling banyak gentamisin dengan ampisilin yaitu 23 pasien (42,6%). Terdapat 28 pasien (51,9%) yang memiliki kadar sesuai dengan kisaran terapi dimana 14 pasien (25,9%) mendapatkan luaran klinis yang baik dan 14 pasien (25,9%) mendapatkan luaran klinis yang buruk. Hasil uji *chi square* menunjukkan $p=0,571$ sehingga tidak terdapat hubungan antara kadar obat gentamisin dalam darah terhadap luaran klinis pasien

Kesimpulan : Estimasi kadar gentamisin dalam darah menggunakan parameter farmakokinetika pada pasien pneumonia anak di RSUD Ajibarang sesuai dengan rentang terapi (0,5-10mg/L) sebanyak 28 pasien (51,9%) . Luaran klinis yang dicapai sebagian besar buruk yaitu 14 pasien (25,9%) karena ada parameter subjektif (demam, sesak nafas, batuk dan pilek), tanda-tanda vital (Suhu, *heart rate*, dan *respiration rate*), data laboratium (leukosit) serta data penunjang (*foto thorax*) belum mengalami perbaikan.

Kata Kunci: Gentamisin, Pneumonia, Estimasi Kadar, Luaran klinis

ABSTRACT

RELATIONSHIP OF GENTAMICIN BLOOD LEVELS TO THE CLINICAL OUTCOME OF CHILD PNEUMONIA PATIENTS IN AJIBARANG HOSPITAL

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Background : Gentamicin is a drug with a narrow therapeutic index that needs to be monitored for drug levels in the blood because it can affect the patient's clinical outcome. The pharmacokinetic approach method can be used as a way to estimate gentamicin levels in order to achieve the expected therapeutic effect.

Methodology: This study is an observational study and uses retrospective data. The collection of medical record data of pediatric pneumonia patients was carried out for 3 months with medical record data of inpatients at Ajibarang Hospital. The data analysis used was univariate and chi square test to see the relationship between gentamicin drug levels in the blood and clinical outcomes of pneumonia patients.

Results: A total of 54 patients met the inclusion criteria. The most combination of antibiotics given to pediatric pneumonia patients was gentamicin and ampicillin, namely 23 patients (42.6%). There were 28 patients (51.9%) who had levels according to the therapeutic range where 14 patients (25.9%) had good clinical outcomes and 14 patients (25.9%) had poor clinical outcomes. The results of the chi square test showed $p = 0.571$ so that there was no relationship between the level of gentamicin in the blood and the clinical outcome of the patient.

Conclusion : Estimation of gentamicin levels in the blood using pharmacokinetic parameters in pediatric pneumonia patients at Ajibarang Hospital according to the therapeutic range (0.5-10mg/L) as many as 28 patients (51.9%) . Most of the clinical outcomes achieved were poor, namely 14 patients (25.9%) because there were subjective parameters (fever, shortness of breath, cough and runny nose), vital signs (temperature, heart rate, and respiration rate), laboratory data (leukocytes) and supporting data (thorax photos) have not improved.

Keywords: Gentamicin, Pneumonia, Estimation of Levels, Clinical Outcome