

SKRIPSI SARJANA FARMASI

**HUBUNGAN RASIONALITAS ANTIBIOTIK GENTAMISIN TERHADAP
OUTCOME KLINIS PADA BAYI SEPSIS DI RSUP DR. M. DJAMIL
PADANG**



Oleh:

SURI KHAIRATI FITRI

NIM: 2211012062

Pembimbing I: apt. Yoneta Srangenge, S.Farm, M.Sc

Pembimbing II: apt. Yelly Oktavia Sari, M.Pharm, Ph.D

Pembimbing III: Dr. dr. Gestina Aliska, S.Ked, Sp.FK

FAKULTAS FARMASI UNIVERSITAS ANDALAS

PADANG

2026

ABSTRAK

HUBUNGAN RASIONALITAS ANTIBIOTIK GENTAMISIN TERHADAP OUTCOME KLINIS PADA BAYI SEPSIS DI RSUP DR. M. DJAMIL PADANG

Oleh:

SURI KHAIRATI FITRI
NIM: 2211012062
(Program Studi Sarjana Farmasi)

Sepsis merupakan salah satu penyebab utama morbiditas dan mortalitas pada bayi sehingga memerlukan penatalaksanaan antibiotik yang cepat dan tepat. Gentamisin sering digunakan sebagai terapi empiris pada sepsis bayi karena efektif terhadap bakteri gram negatif dan relatif terjangkau. Namun, gentamisin memiliki indeks terapi sempit sehingga ketepatan penggunaannya perlu diperhatikan untuk memastikan efektivitas terapi serta meminimalkan risiko toksisitas. Penelitian ini bertujuan menilai ketepatan penggunaan gentamisin berdasarkan rekam medis serta menganalisis hubungannya dengan *outcome* klinis pada bayi sepsis di RSUP Dr. M. Djamil Padang. Penelitian menggunakan desain kuantitatif *cross sectional* dengan pendekatan retrospektif, melibatkan rekam medis bayi usia 0–11 bulan yang didiagnosis sepsis dan menerima gentamisin selama periode Januari 2021–Desember 2025. Penilaian rasionalitas merujuk pada PPK RSUP Dr. M. Djamil, PNPk Sepsis Anak, Medscape, WHO, dan NICE, sedangkan hubungan antara rasionalitas penggunaan dan *outcome* dianalisis menggunakan uji *chi-square* atau *Fisher's Exact Test*. Hasil penelitian menunjukkan ketepatan obat, pasien, rute, dan frekuensi mencapai 100%, ketepatan dosis 85,5%, serta ketepatan lama pemberian 88%. Secara keseluruhan, hanya 64 dari 83 pasien (77,1%) yang memenuhi seluruh kriteria dan dikategorikan menerima terapi secara rasional, sedangkan 19 pasien (22,9%) lainnya dinilai tidak rasional. Analisis statistik menunjukkan tidak terdapat hubungan bermakna antara rasionalitas penggunaan gentamisin dan *outcome* klinis ($p > 0,05$). Penelitian ini menyimpulkan bahwa meskipun sebagian besar aspek penggunaan gentamisin telah sesuai pedoman, ketidaktepatan pada dosis dan durasi masih ditemukan, dan rasionalitas penggunaan gentamisin tidak terbukti berpengaruh signifikan terhadap perubahan *outcome* klinis pada bayi sepsis.

Kata kunci: gentamisin, bayi sepsis, rasionalitas antibiotik, *outcome* klinis

ABSTRACT

ASSOCIATION BETWEEN THE RATIONAL USE OF GENTAMICIN AND CLINICAL OUTCOMES IN INFANTS WITH SEPSIS AT DR. M. DJAMIL GENERAL HOSPITAL PADANG

By:

SURI KHAIRATI FITRI
Student ID Number: 2211012062
(Bachelor of Pharmacy)

Sepsis is one of the leading causes of morbidity and mortality in infants; therefore, prompt and appropriate antibiotic management is required. Gentamicin is frequently used as an empirical therapy in infant sepsis because it is effective against Gram-negative bacteria and relatively affordable. However, gentamicin has a narrow therapeutic index, so its use must be carefully optimized to ensure therapeutic effectiveness while minimizing the risk of toxicity. This study aimed to assess the appropriateness of gentamicin use based on medical records and to analyze its association with clinical outcomes among septic infants at Dr. M. Djamil General Hospital Padang. A quantitative cross-sectional design with a retrospective approach was employed, involving medical records of infants aged 0–11 months diagnosed with sepsis and receiving gentamicin between January 2021 and December 2025. Rationality assessment referred to hospital treatment guidelines (PPK), the National Pediatric Sepsis Guideline (PNPK), Medscape, WHO, and NICE, while the association between rationality and clinical outcomes was analyzed using the chi-square test or Fisher's Exact Test. The results showed 100% appropriateness for drug selection, patient suitability, route, and frequency, while dose accuracy reached 85.5% and duration accuracy 88%. Overall, only 64 of 83 infants (77.1%) met all criteria and were classified as receiving rational therapy, whereas 19 infants (22.9%) were categorized as irrational. Statistical analysis demonstrated no significant association between gentamicin rationality and clinical outcomes ($p > 0.05$). In conclusion, although most aspects of gentamicin use adhered to clinical guidelines, inaccuracies in dosing and duration remained, and rational antibiotic use did not significantly influence clinical outcomes in septic infants.

Keywords: gentamicin, septic neonates, antibiotic rationality, clinical outcomes