INTISARI

Latar belakang: Penggunaan antibiotik terus mengalami peningkatan dan menjadi salah satu faktor risiko terjadinya resistensi antibiotik. Dampak resistensi tidak hanya kematian pada suatu individu, tetapi telah menjadi *silent pandemi*c. Salah satu infeksi dengan prevalensi tertinggi adalah Infeksi Saluran Kemih (ISK), terutama pada geriatri karena menurunnya fungsi imun..
Tujuan penelitian: mengetahui rasionalitas penggunaan antibiotik pada pasien geriatri dengan ISK terhadap luaran klinis.
Metode Penelitian: Penelitian dilakukan di RSA UGM dengan jenis penelitian analitik dan rancangan kohort retrospektif. Sampel yang digunakan adalah pasien geriatri yang mengalami infeksi saluran kemih pada periode Agustus 2024 – Agustus 2025. Pengambilan sampel menggunakan teknik *consecutive sampling*, Kriteria inklusi meliputi pasien ISK yang mendapatkan terapi antibiotik dan pasien usia ≥ 65 tahun. Kriteria eksklusi meliputi pasien dengan riwayat infeksi lainnya; pasien yang meninggal saat menjalankan terapi ISK dan/atau pulang < 48 jam penggunaan antibiotik. Evaluasi menggunakan metode *Gyssens* mulai dari kategori VI-0, kecuali kategori IVc. Analisis bivariat (*Chi-square/Fisher Exact Test*) dengan variabel rasionalitas antibiotik, usia, jenis kelamin, skor *CCI* dan jenis ISK. Analisis multivariat (*multiple regresi logistic*) dengan variabel rasionalitas antibiotik dan usia.
Hasil penelitian: Terdapat 101 pasien dengan 116 penggunaan antibiotik. Antibiotik empiris sebanyak 113, terdiri atas 49 (43%) rasional dan 64 (57%) tidak rasional, dengan kategori tidak rasional terbanyak yaitu IIb 47 (41%), IIa 18 (16%), dan IVd 2 (2%). Antibiotik definitif sebanyak 3, terdiri atas 2 (67%) rasional dan 1 (33%) tidak rasional kategori IIa. Berdasarkan analisis per pasien, antibiotik rasional ditemukan pada 43 (42,6%) pasien dengan luaran klinis membaik sebanyak 42 (98%) pasien, sedangkan antibiotik tidak rasional ditemukan pada 58 (57,4%) pasien dengan luaran klinis membaik sebanyak 48 (83%) pasien. Terdapat hubungan signifikan antara rasionalitas penggunaan antibiotik dengan luaran klinis pada uji bivariat (p=0,002) dan multivariat (p=0,031; OR=10,42; CI95%=1,244–87,275).
Kesimpulan: antibiotik rasional memberikan potensi luaran klinis membaik pada pasien geriatri dengan ISK

Kata kunci : PPRA, infeksi saluran kemih, Gyssens, geriatri, antibiotik.

ABSTRACT

Background: Antibiotic use continues to rise and has become one of the risk factors for antibiotic resistance. The impact of resistance extends beyond individual mortality; it has become a silent pandemic. One of the most prevalent infections is urinary tract infection (UTI), particularly among the elderly due to declining immune function.
Research Objective: o determine the rationality of antibiotic use in geriatric patients with UTIs in relation to clinical outcomes.
Research Method: The study was conducted at RSA UGM using an analytical research design with a retrospective cohort study. The sample consisted of geriatric patients who developed urinary tract infections between August 2024 and August 2025. Sampling was performed using consecutive sampling. Inclusion criteria included UTI patients receiving antibiotic therapy and patients aged ≥ 65 years. Exclusion criteria included patients with a history of other infections; patients who died during UTI treatment and/or were discharged < 48 hours after starting antibiotics. Evaluation used the Gyssens method starting from category VI-0, except for category IVc. Bivariate analysis (Chi-square/Fisher Exact Test) was performed using the variables of antibiotic rationality, age, gender, CCI score, and type of UTI. Multivariate analysis (logistic multiple regression) was performed using the variables of antibiotic rationality and age.
Study results: There were 101 patients with 116 instances of antibiotic use. Empirical antibiotic use totaled 113 instances, consisting of 49 (43%) rational and 64 (57%) irrational cases, with the most common irrational categories being IIb (47, 41%), IIa (18, 16%), and IVd (2, 2%). There were 3 definitive antibiotics, consisting of 2 (67%) rational and 1 (33%) irrational in category IIa. Based on a per-patient analysis, rational antibiotic use was found in 43 (42.6%) patients, with improved clinical outcomes in 42 (98%) of these patients, while irrational antibiotic use was found in 58 (57.4%) patients, with improved clinical outcomes in 48 (83%) of these patients. There was a significant association between the rationality of antibiotic use and clinical outcomes in both bivariate (p=0.002) and multivariate (p=0.031; OR=10.42; 95% CI=1.244–87.275) analyses.
Conclusion: Rational antibiotic use offers the potential for improved clinical outcomes in geriatric patients with UTIs

Keywords: PPRA, Urinary tract infection, Gyssens, geriatrics, antibiotic.