

INTISARI

Latar Belakang : Penyakit infeksi merupakan salah satu masalah kesehatan yang perlu diberikan perhatian. Infeksi bakteri *multidrug-resistant* sudah mulai dapat ditemukan antara lain pada isolat klinik *Acinetobacter baumannii*. Antibiotika menjadi jenis obat yang paling sering digunakan dalam mengatasi penyakit infeksi. Karbapenem dari golongan antibiotika β -laktam merupakan antibiotika paling efektif dalam menangani infeksi bakteri positif dan negatif, dikenal sebagai “*last line agent*” yang harus digunakan secara bijaksana. Penggunaan antibiotika yang kurang rasional dan tidak tepat guna pada pasien penyakit infeksi beresiko menyebabkan terjadinya resistensi. Ditemukan kecenderungan peningkatan resistensi antibiotika terhadap bakteri selama beberapa tahun terakhir secara global. Penelitian ditujukan untuk mengevaluasi tingkat resistensi isolat klinik *Acinetobacter baumannii* terhadap antibiotika golongan karbapenem.

Metode : Penelitian dilakukan dengan metode deskriptif retrospektif terhadap data sekunder hasil uji kepekaan antibiotika karbapenem dan isolat *Acinetobacter baumannii* di Rumah Sakit Umum Pusat Dr. Sardjito, Yogyakarta. Kriteria inklusi adalah isolat klinik *Acinetobacter baumannii* yang ditemukan dalam kultur berbagai jenis sampel dan tersedia hasil uji kepekaan. Penelitian menggunakan data yang diperoleh dari sistem informasi laboratorium RSUP Dr. Sardjito periode Januari – Agustus tahun 2024. Data disajikan menggunakan tabel distribusi frekuensi dan dianalisis menggunakan statistik deskriptif. Uji proporsi satu populasi dilakukan menggunakan *Z-test*.

Hasil : Isolat klinik *A. baumannii* yang dilakukan evaluasi sebanyak 116 isolat yang diperoleh dari sampel sputum, pus, darah, dan lainnya di laboratorium RSUP Dr. Sardjito. Distribusi terbesar berdasarkan karakteristik subyek ditemukan pada usia ≥ 18 tahun (76,62%), bangsal perawatan intensif (70,12%), dan jenis sampel sputum (36,36%). Hasil uji kepekaan, ditemukan *A. baumannii* resisten karbapenem sebanyak 77 isolat (66,37%) [95% CI : 59,15% - 73,59%, $p = 0,0002$]. Hasil uji statistik menunjukkan bahwa tingkat resistensi isolat klinik *A. baumannii* secara bermakna lebih besar dari 50%.

Simpulan : Tingkat resistensi isolat klinik *Acinetobacter baumannii* terhadap antibiotika golongan karbapenem di RSUP Dr. Sardjito adalah sebesar 66,37%.

Kata kunci : *Acinetobacter baumannii*, antibiotika, karbapenem, resistensi, sensitivitas

ABSTRACT

Background: Infectious disease is a health problem that needs attention. Multidrug-resistant bacterial infections have begun to be found, among others, in clinical isolates of *Acinetobacter baumannii*. Antibiotics are the type of drug most often used to treat infectious diseases. Carbapenems from the β -lactam antibiotic class are the most effective antibiotics in treating positive and negative bacterial infections, known as "last line agents" which must be used wisely. The irrational and ineffective use of antibiotics in patients with infectious diseases is at risk of causing resistance. It has been found that there is an increasing trend of antibiotic resistance against bacteria in recent years globally. The aim of this study was to evaluate the level of *Acinetobacter baumannii* clinical isolates resistance in carbapenem class antibiotics.

Method: The study was conducted using a retrospective descriptive method on secondary data from the results of carbapenem antibiotic susceptibility tests and *Acinetobacter baumannii* isolates at Dr. Sardjito General Hospital, Yogyakarta. The inclusion criteria were clinical isolates of *Acinetobacter baumannii* found in cultures from various types of samples with available susceptibility test results. The study used data obtained from the laboratory information system of RSUP Dr. Sardjito for the period of January – August 2024. The data were presented using frequency distribution tables and analyzed using descriptive statistics. A one-population proportion test was conducted using the Z-test.

Results: A total of 116 clinical *A. baumannii* isolates were evaluated, obtained from samples of sputum, pus, blood, and others in the laboratory of RSUP Dr. Sardjito. The largest distribution based on subject characteristics was found in the age group ≥ 18 years (76.62%), intensive care wards (70.12%), and sputum samples (36.36%). The susceptibility test results revealed that 77 isolates (66.37%) of *A. baumannii* were resistant to carbapenems [95% CI: 59.15% - 73.59%, $p = 0.0002$]. Statistical test results showed that the resistance rate of clinical *A. baumannii* isolates was significantly greater than 50%.

Conclusion: The resistance rate of clinical *Acinetobacter baumannii* isolates to carbapenem antibiotics at Dr. Sardjito Hospital is 66.37%.

Keywords: *Acinetobacter baumannii*, antibiotics, carbapenems, resistance, sensitivity