

ABSTRAK

DINDA ANISSA ROSSANTI DEWI, 2022, POLA SENSITIVITAS BAKTERI INFEKSI NOSOKOMIAL *Pseudomonas aeruginosa* TERHADAP ANTIBIOTIK DARI RUANG RAWAT INAP RSUP SURAKARTA, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh Dr. apt. Ismi Rahmawati, S.Si., M.Si dan apt. Carolina Eka Waty, S.Farm., M.Sc.

Infeksi nosokomial merupakan infeksi yang diperoleh dan berkembang pada pasien yang dirawat di rumah sakit dengan atau tanpa gejala ketika mereka mengalami infeksi ini. Infeksi nosokomial disebabkan salah satunya oleh bakteri *Pseudomonas aeruginosa* yang sering terjadi di lingkungan rumah sakit dan dapat diperoleh dari udara ruang rawat inap rumah sakit. Penelitian ini bertujuan untuk mengetahui pola sensitivitas bakteri infeksi nosokomial *Pseudomonas aeruginosa* terhadap antibiotik di ruang rawat inap RSUP Surakarta.

Bakteri *Pseudomonas aeruginosa* yang telah diisolasi dari sampel udara pada media *Pseudomonas Selective Agar* lalu dilakukan identifikasi meliputi pewarnaan Gram dan uji biokimia. Kemudian dilanjutkan uji sensitivitas terhadap antibiotik ciprofloxacin, gentamicin, imipenem, dan ofloxacin dengan metode difusi *Kirby Bauer*. Hasil diameter zona hambat pada uji sensitivitas dibandingkan dengan zona hambat menurut *Clinical Laboratory Standard Institute 2020*.

Hasil penelitian ini menunjukkan bahwa dari 38 sampel hanya 30 sampel (78,94%) yang teridentifikasi positif bakteri *Pseudomonas aeruginosa*. Hasil diameter zona hambat pada antibiotik ciprofloxacin 31,49 mm, gentamicin 25,63 mm, imipenem 7,60 mm, dan ofloxacin 25,74 mm. Pola sensitivitas bakteri *Pseudomonas aeruginosa* menunjukkan hasil sensitif 100% terhadap gentamicin, sensitif 86,67% terhadap ofloxacin, sensitif 76,67% terhadap ciprofloxacin, dan bakteri *Pseudomonas aeruginosa* resisten terhadap imipenem 76,67%.

Kata Kunci: Antibiotik, Infeksi Nosokomial, *Pseudomonas aeruginosa*

ABSTRACT

DINDA ANISSA ROSSANTI DEWI, 2022, BACTERIAL SENSITIVITY PATTERN OF NOSOCOMIAL INFECTION *Pseudomonas aeruginosa* TO ANTIBIOTICS FROM THE INPATIENT ROOM OF SURAKARTA HOSPITAL, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by Dr. apt. Ismi Rahmawati, S.Si., M.Si and apt. Carolina Eka Waty, S.Farm., M.Sc.

Nosocomial infections are infections that are acquired and develop in hospitalized patients with or without symptoms when they have this infection. Nosocomial infections are caused one of them by the bacterium *Pseudomonas aeruginosa* which often occurs in the hospital environment and can be obtained from the air of the hospital inpatient room. This study aims to determine the pattern of sensitivity of nosocomial infection bacteria *Pseudomonas aeruginosa* to antibiotics in the inpatient room of Surakarta Hospital.

Pseudomonas aeruginosa bacteria that have been isolated from air samples on *Pseudomonas Selective Agar* media for identification include Gram staining and biochemical tests. Then continued sensitivity tests to antibiotics ciprofloxacin, gentamicin, imipenem, and ofloxacin with the *Kirby Bauer* diffusion method. The results of the diameter of the inhibitory zone in the sensitivity test are compared to the inhibitory zone according to the Clinical Laboratory Standard Institute 2020.

The results of this study showed that from 38 samples only 30 samples (78.94%) were identified positive for *Pseudomonas aeruginosa* bacteria. The results of the diameter of the inhibitory zone on antibiotics ciprofloxacin 31.49 mm, gentamicin 25.63 mm, imipenem 7.60 mm, and ofloxacin 25.74 mm. The sensitivity pattern of *Pseudomonas aeruginosa* bacteria showed results of 100% sensitive to gentamicin, 86.67% sensitive to ofloxacin, 76.67% sensitive to ciprofloxacin, and *Pseudomonas aeruginosa* bacteria resistant to 76.67% imipenem.

Keywords: Antibiotics, Nosocomial Infection, *Pseudomonas aeruginosa*