

## KAJIAN KESESUAIAN PENGGUNAAN DOSIS ANTIBIOTIK PADA PASIEN ULKUS DIABETIK

Resi Ayu Nanda Mustika<sup>1</sup>, Sugiyono<sup>2</sup>, Niken Larasati<sup>3</sup>

### INTISARI

**Latar Belakang:** Penggunaan dosis antibiotik yang tidak sesuai dapat menyebabkan resistensi antibiotik. Kesesuaian dosis antibiotik menjadi perhatian lebih untuk mengoptimalkan pengobatan pasien. Dosis antibiotik yang sesuai pada pasien infeksi ulkus diabetik akan memberikan hasil terapi yang lebih baik, mengurangi angka resistensi antibiotik, kejadian amputasi, meningkatkan kualitas hidup pasien dan menurunkan tingkat kematian.

**Tujuan Penelitian:** Mengkaji kesesuaian pemberian dosis antibiotik pada pasien infeksi ulkus diabetik.

**Metode Penelitian:** Penelitian ini menggunakan rancangan observasional deskriptif-analitik dengan desain *cohort retrospektif* pada pasien infeksi ulkus diabetik di RSUD Kota Yogyakarta periode 1 Januari 2018 – 31 Desember 2020. Kesesuaian pemberian dosis antibiotik disesuaikan dengan DIH Edisi 22. Data penelitian diambil dari rekam medik pasien yang memenuhi kriteria inklusi yaitu sebanyak 180 sampel. Data kemudian dianalisis secara deskriptif untuk mengetahui karakteristik pasien (umur, jenis kelamin dan penyakit penyerta non infeksi), serta karakteristik terapi antibiotik (pola penggunaan antibiotik, dosis, dan durasi) yang disajikan dalam bentuk persentase, dan analisis bivariat *Chi-square* untuk mengetahui hubungan antara kesesuaian dosis antibiotik dengan *clinical outcome*.

**Hasil Penelitian:** Karakteristik pasien yang mengalami ulkus diabetik didominasi oleh pasien dengan umur 18-60 tahun (58,34%), jenis kelamin laki-laki (56,11%) serta adanya penyakit penyerta non infeksi sebesar (76,11%). Kesesuaian dosis antibiotik berdasarkan pedoman DIH Edisi 22 diperoleh hasil dengan dosis yang sesuai sebesar (71,67%). Analisis *Chi-square* antara kesesuaian pemberian dosis antibiotik dengan *clinical outcome* didapatkan nilai  $p=0,102$ .

**Kesimpulan:** Tidak terdapat hubungan antara kesesuaian pemberian dosis antibiotik dengan *clinical outcome* pasien ulkus diabetik.

**Kata kunci:** Dosis Antibiotik, Ulkus Diabetik, DIH, *Clinical Outcome*

---

<sup>1</sup>Mahasiswa Farmasi Universitas Jenderal Achmad Yani Yogyakarta

<sup>2</sup>Dosen Farmasi Universitas Jenderal Achmad Yani Yogyakarta

<sup>3</sup>Dosen Farmasi Universitas Jenderal Achmad Yani Yogyakarta

## ASSESSMENT OF APPROPRIATE USE OF ANTIBIOTIC DOSAGE IN DIABETIC ULCUS PATIENTS

Resi Ayu Nanda Mustika<sup>1</sup>, Sugiyono<sup>2</sup>, Niken Larasati<sup>3</sup>

### ABSTRACT

**Background:** The use of inappropriate doses of antibiotics can lead to antibiotic resistance. The appropriateness of the dose of antibiotics is of greater concern to optimize patient treatment. The appropriate dose of antibiotics in patients with diabetic ulcer infection will provide better therapeutic results, reduce the rate of antibiotic resistance, the incidence of amputations, improve the quality of life of patients and reduce mortality rates.

**Objectives:** Assessing the suitability of antibiotic dosing in diabetic ulcer infection patients.

**Methods:** This study used a descriptive-analytic observational design with a retrospective cohort design to examine the relationship between the appropriateness of antibiotic dosing in patients with diabetic ulcer infection at the Yogyakarta City Hospital for the period January 1, 2018 – December 31, 2020. The appropriateness of antibiotic dosing was adjusted to DIH Edition 22. The research data were taken from The medical records of patients who met the inclusion criteria were 180 samples. The data were then analyzed descriptively to determine patient characteristics (age, gender and non-infectious comorbidities), as well as characteristics of antibiotic therapy (antibiotic use patterns, dosage, and duration) which were presented in percentage form, and Chi-square bivariate analysis to determine the relationship between between the appropriateness of antibiotic dose and clinical outcome.

**Results:** Characteristics of patients with diabetic ulcers were dominated by patients aged 18-60 years (58.34%), male gender (56.11%) and the presence of non-infectious comorbidities (76.11%). The appropriateness of the antibiotic dose based on the DIH Edition 22 guidelines was obtained with the appropriate dose (71.67%). Chi-square analysis between the administration of the antibiotic dose and the clinical outcome obtained p value = 0.102.

**Conclusion:** There is no relationship between the appropriateness of antibiotic dosing with clinical outcomes of diabetic ulcer patients.

**Keywords:** Antibiotic Dosage, Diabetic Ulcer, DIH, Clinical Outcome

---

<sup>1</sup>Student of Pharmacy Universitas Jenderal Achmad Yani Yogyakarta

<sup>2</sup>Lecturer of Pharmacy Universitas Jenderal Achmad Yani Yogyakarta

<sup>3</sup>Lecturer of Pharmacy Universitas Jenderal Achmad Yani Yogyakarta