INTISARI

Ceftriaxone-Metronidazole dan ampisilin-sulbaktam merupakan kombinasi terapi antibiotik empiris yang umum digunakan pada penanganan pasien rawat inap infeksi ulkus kaki diabetikum kategori *moderate-severe* serta aktif terhadap bakteri gram negatif, positif maupun anaerob. Penggunaan kedua terapi antibiotik ini memiliki perbedaan regimen dan efektifitas sehingga perlu diperhatikan tidak hanya dari efektifitas namun juga dari sisi farmakoekonomi. Tujuan penelitian ini adalah analisis efektifitas biaya penggunaan ceftriaxone-metronidazole dan ampisillin-sulbaktam sebagai antibiotik empiris yang diresepkan pada pasien ulkus kaki diabetikum rawat inap.

Desain penelitian ini adalah kohort retrospektif menggunakan data rekam medis serta data biaya medis di RSUP Dr. Sardjito Yogyakarta pada periode 2021-2024. Efektifitas klinis infeksi pada pasien dinyatakan dengan terdapat perbaikan tanda vital dan klinis, parameter laboratorium serta tidak terjadi eskalasi antibiotik atau antibiotik tambahan. Analisis biaya dilakukan dengan menghitung total biaya medis langsung. Penentuan terapi *cost effective* menggunakan nilai *average cost-effectiveness ratio* (ACER) dan *incremental cost-effectiveness ratio* (ICER) dari kedua kelompok. Subjek pada penelitian ini yaitu 23 orang kelompok ceftriaxone-metronidazole dan 43 orang kelompok ampisilin-sulbaktam.

Terdapat perbedaan signifikan perbaikan efektifitas klinis pada kelompok ceftriaxone-metronidazole dan ampisilin-sulbaktam yaitu 82,6% dan 48,8% (p=0,009). Pada total biaya medis langsung terdapat perbedaan signifikan antara ceftriaxone-metronidazole dan ampisilin sulbaktam yaitu Rp 17.866.114 per episode rawat inap (3-7 hari) dan Rp 13.890.030 per episode rawat inap (3-7 hari) (p=0,005). Pada perhitungan nilai ICER dapat disimpulkan bahwa untuk meningkatkan 1% efektifitas klinis infeksi diabetikum pada pasien ceftriaxone-metronidazole membutuhkan tambahan biaya tambahan sebesar Rp 117.635.

Kata kunci : *Cost effectiveness analysis,* Ceftriaxone-Metronidazole, Ampisillin-Sulbaktam, Efektivitas, Efek samping.

ABSTRACT

Ceftriaxone-Metronidazole and ampicillin-sulbactam are a combination of empirical antibiotic therapy that is commonly used in the treatment of inpatients with moderate-severe diabetic foot ulcer infections and is active against gram-negative, gram-positive, and anaerobic bacteria. The use of these two antibiotic therapies has different regimens and effectiveness, so it is necessary to consider not only effectiveness but also from pharmacoeconomic aspects. This study aimed to analyze the cost-effectiveness of using ceftriaxone-metronidazole and ampicillin-sulbactam as empirical antibiotics prescribed to inpatients with diabetic foot ulcers.

This study design is a retrospective cohort using medical record data and medical cost data at Dr. Sardjito General Hospital, Yogyakarta, in the period 2021-2024. The clinical effectiveness of infection in patients is that there is improvement in vital and clinical signs, laboratory parameters and there is no escalation of antibiotics or additional antibiotics. Cost analysis was performed by calculating total direct medical costs. The cost-effectiveness of therapy was determined using the average cost-effectiveness ratio (ACER) and incremental cost-effectiveness ratio (ICER) values for both groups. Subjects in this study were 23 people in the ceftriaxone-metronidazole group and 43 people in the ampicillin-sulbactam group.

There was a significant difference in clinical effectiveness improvement in the ceftriaxone-metronidazole and ampicillin-sulbactam groups, namely 82,6% and 48,8% (p=0,009). In total direct medical costs, there was a significant difference between ceftriaxone-metronidazole and ampicillin sulbactam, namely Rp 17.866.114 per inpatient episode (3-7 days) and Rp 13.890.030 per inpatient episode (3-7 days) (p=0,005). In the ICER value calculation, it can be concluded that to increase the clinical effectiveness of diabetic infections in ceftriaxone-metronidazole patients by 1% requires an additional cost of Rp 117.635.

Keywords: *Cost effectiveness analysis, Ceftriaxone-Metronidazole, Ampicillin-Sulbactam, Effectiveness, Side effects.*