INTISARI

DEWI, W. N. A. 2020. POLA SENSITIVITAS BAKTERI *Escherichia coli* DARI ISOLAT URIN PASIEN TERDIAGNOSIS INFEKSI SALURAN KEMIH TERHADAP BEBERAPA ANTIBIOTIK DI RSUD KOTA SURAKARTA 2020, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Infeksi saluran kemih (ISK) adalah kondisi dimana saluran kemih terinfeksi oleh mikroorganisme yang menyebabkan peradangan, sebagian besar ISK disebabkan oleh bakteri *Escherichia coli*. Tujuan penelitian ini untuk mengetahui adanya bakteri *Escherchia coli* dan mengetahui pola sensitivitas siprofloksasin, kotrimoksazol, fosfomisin dan amoksisilin-klavulanat terhadap bakteri *Escherchia coli* dari isolat urin pasien ISK.

Bakteri *Escherichia coli* diisolasi dari sampel urin pasien ISK menggunakan media *Eosin Methylene Blue* (EMB), dilanjutkan uji identifikasi biokimia dan pewarnaan Gram. Uji sensitivitas antibiotik dengan metode difusi pada media *Mueller Hinton Agar* untuk mengetahui daya hambat masing-masing antibiotik. Data diameter daya hambat di analisis berdasarkan interpretasi sensitivitas *Clinal Laboratory Standards Institute* selanjutnya dipersentasekan.

Hasil penelitian menunjukan terdapatnya bakteri *Escherichia coli* pada sampel. Hasil uji sensitivitas bakteri terhadap antibiotik siprofloksasin menunjukkan 77,78% sensitif dan 22,22% resisten. Hasil ini masih memiliki sensitivitas yang cukup tinggi diantara hasil penelitian siprofloksasin lainnya. Kotrimoksazol menunjukkan 33,33% sensitif dan 66,67% resisten. Antibiotik kotrimoksazol terbilang mempunyai resistensi yang cukup tinggi karena dari semua hasil antibiotik kotrimoksazol mempunyai sensitivitas dibawah 50%. Fosfomisin menunjukkan 100% sensitif. Amoksisilin-klavulanat menunjukkan 55,55% sensitif dan 44,44% resisten. Hasil ini tidak jauh berbeda dari hasil antibiotik amoksisilin klavulanat yang lain dimana rata-rata sensitivitas yang dihasilkan antara 50%-60%.

Kata kunci : infeksi saluran kemih, *Escherichia coli*, antibiotik, sensitivitas

ABSTRACT

DEWI, W. N. A. 2020. BACTERIAL SENSITIVITY PATTERN *Escherichia coli* OF URINARY ISOLATE PATIENTS DIAGNOSED WITH URINARY TRACT INFECTIONS OF SOME ANTIBIOTICS AT HOSPITAL SURAKARTA CITY 2020, SKRIPSI, FACULTY OF PHARMACY, UNIVERSITY OF SETIA BUDI, SURAKARTA

Urinary tract infections (UTIs) are a conditions where the urinary tract is infected by microorganisms that cause inflammation, most of UTIs caused by the bacteria *Escherichia coli*. The purpose of this research is to know the presence of bacteria *Escherichia coli* and to know the pattern of sensitivity of siprofloksacin, cotrimoxazole, Phosphomicyn and amoksisilin-klavulanate bacteria against *Escherchia coli* from the urinary isolates of UTIs patiens..

Escherichia coli bacteria are isolated from the urine samples of UTIs patiens using an *Eosin Methylene Blue* (EMB) medium, followed by biochemical identification tests and Gram staining. Anthibiotic sensitivity test with diffusion method on the *Mueller Hinton* medium to determine the recistance of each antibiotic. Data on the diamaterinter of the power in the analysis based on the interpretation of the *Clinal Laboratory Standards Institute* sensitivity is further cented.

The results of the study showed the occurrence of *Escherichia coli* bacteria in the sample. The test results of the bacteria sensitivity to ciprofloxacin antibiotics showed 77.78% sensitive and 22.22% resistant. These results still have high sensitivity among other research results. Cotrimoxazole showed 33.33% sensitivity and 66.67% resistant. Cotrimoxazole antibiotics have a high enough resistance because of all the results of the cotrimoxazole antibiotics have a sensitivity below 50%. Phosphomycin shows 100% sensitive. Amoxicillin-clavulanate shows 55.55% sensitive and 44.44% resistant. These results are not much different from the results of the other amoxicillin clavulanate antibiotics where the average sensitivity is genereted between 50% -60%.

Keyword : urinary tract infection, *Escherichia coli*, antibiotics, sensitivity