

## INTISARI

**Haidar, M. H. 2018. POLA SENSITIVITAS BAKTERI *Escherichia coli* DARI URINE PASIEN INFEKSI SALURAN KEMIH DI RSUD Dr. MOEWARDI SURAKARTA TERHADAP ANTIBIOTIK MEROPENEM, AMIKASIN, SEFIKSIM DAN Siprofloksasin, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA**

Infeksi saluran kemih (ISK) adalah suatu keadaan adanya infeksi mikroorganisme pada saluran kemih. Sebagian besar infeksi saluran kemih disebabkan oleh bakteri *Escherichia coli*. Timbulnya resistensi antibiotik dalam terapi ISK merupakan permasalahan yang perlu di perhatikan. Penggunaan antibiotik yang tepat dapat meningkatkan keberhasilan penyembuhan penyakit ISK. Tujuan penelitian ini adalah untuk mengetahui sensitivitas antibiotik meropenem, amikasin, sefiksim dan siprofloksasin terhadap bakteri *Escherichia coli* yang menyebabkan ISK.

Bakteri *Escherichia coli* diisolasi dari urin pasien rawat inap di RSUD Dr. Moewardi dengan menggunakan media *Mac Conkey Agar*, dilakukan uji identifikasi meliputi mikroskopis dan biokimia. Uji sensitivitas dilakukan untuk mengetahui daya hambat dari masing-masing antibiotik. Data diameter daya hambat antibiotik dianalisis berdasarkan interpretasi sensitivitas *Clinical Laboratory Standards Institute* dan dilanjutkan uji statistik Mann Whitney.

Hasil penelitian menunjukkan bahwa dari 30 sampel yang terdapat bakteri *Escherichia coli* sebanyak 16 sampel dengan tingkat kepekaan 100% sensitif terhadap meropenem, 87,5% sensitif terhadap amikasin, 25 % sensitif terhadap sefiksim dan 25% terhadap siprofloksasin. Antibiotik intermediate yaitu amikasin 12,5% dan siprofloksasin 6,25%. Resisten sefiksim 75% dan siprofloksasin 68,75% terhadap bakteri *Escherichia coli*. Meropenem merupakan antibiotik yang paling sensitif untuk mengobati infeksi saluran kemih yang disebabkan bakteri *Echerichia coli*.

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Kata kunci : infeksi saluran kemih, *Echerichia coli*, antibiotik

## ABSTRACT

**H Aidar, M. H. 2018. Sensitivity Pattern *Escherichia coli* From Urine Patients Urinary Tract Infection in RSUD Dr. Moewardi Surakarta on Antibiotic Meropenem, Amikacin, Cefixime and Ciprofloxacin, Thesis, Faculty of Farmasi, Setia Budi University, Surakarta.**

Urinary tract infection (UTI) is a condition infection of microorganisms in the urinary tract. Most urinary tract infections are caused by *Escherichia coli* bacteria. The incidence of antibiotic resistance in UTI therapy is a problem that needs to be noticed. Proper use of antibiotics can improve the successful care of UTI disease. The purpose of this study was to investigate the sensitivity of antibiotic meropenem, amikacin, cefixime and ciprofloxacin against *Escherichia coli* bacteria causing UTI disease.

*Escherichia coli* bacteria was isolated from urine of inpatients in RSUD Dr. Moewardi by using *Mac Conkey Agar* media, identification test was done covering microscopic and biochemistry. The sensitivity test was performed to determine the inhibitory power of each antibiotic. Result on antibiotic inhibitory diameter were analyzed based on interpretation of sensitivity of Clinical Laboratory Standards Institute and continued by statistical test with Mann Whitney statistic test.

The results of research showed that from 30 samples contained bacteria *Escherichia coli* 16 samples with sensitivity 100% sensitive to meropenem, 87.5% sensitive to amikacin, 25% sensitive to cefixime and 25% to ciprofloxacin. Intermediate antibiotics are amikacin 12.5% and ciprofloxacin 6.25%. Resistant cefixime 75% and ciprofloxacin 68.75% against *Escherichia coli* bacteria. Meropenem is the most sensitive antibiotic to treat urinary tract infections caused by *Echerichia coli* bacteria.

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Keywords: urinary tract infection, *Echerichia coli*, antibiotic