

INTISARI

LATAR BELAKANG: Istilah Infeksi Saluran Kemih umum digunakan untuk menandakan adanya invasi mikroorganisme pada saluran kemih. Di Indonesia, ISK merupakan penyakit yang relatif sering pada semua usia mulai dari bayi sampai orang tua. Bakteri utama terkait ISK di negara berkembang adalah organisme Gram negatif, seperti *Escherichia coli*. Pada dekade terakhir resistensi kuman patogen penyebab ISK terhadap satu atau lebih antibiotik semakin meningkat seperti ampicilin dan amoksisilin terhadap bakteri *Escherichia coli*. Pemberian terapi yang tepat perlu didukung oleh hasil kultur urin dan uji sensitivitas terhadap antibiotik.

TUJUAN: Untuk mengetahui pola kepekaan antibioma *Escherichia coli* dalam kultur urin sehingga peresepan antibiotik terhadap pasien infeksi saluran kemih menjadi lebih tepat.

METODE: Penelitian ini menggunakan rancangan penelitian *observasional deskriptif*. Data isolat klinis *E. coli* dalam kultur urin dan hasil uji kepekaan antibiotik diperoleh dari Instalasi Laboratorium Klinik. Data yang terkumpul kemudian diolah dan dianalisis menggunakan statistik deskriptif dan uji proporsi.

HASIL: Berdasarkan analisa uji kepekaan antibiotik, didapatkan 3 hasil resisten tertinggi yaitu: Ampicillin (92,4%), Sulfamethoxazole (70,7%), dan Ceftriaxone (70,6%). Sedangkan 3 hasil sensitif tertinggi yaitu: Tigecycline (98,9%), Meropenem (97,8%), dan Ertapenem (94,6%).

KESIMPULAN: Berdasarkan analisa uji kepekaan antibiotik, didapatkan hasil resisten tertinggi yaitu: Ampicillin (92,4%). Sedangkan hasil sensitif tertinggi yaitu: Tigecycline (98,9%).

KATA KUNCI: Infeksi saluran kemih, *Escherichia coli*, kultur urin, uji kepekaan antibiotik

ABSTRACT

BACKGROUND: The term Urinary Tract Infection is commonly used to indicate the invasion of microorganisms in the urinary tract. In Indonesia, UTI is a disease that is relatively frequent at all ages ranging from infants to the elderly. The main bacterium associated with UTI in developing countries is Gram negative organisms, such as *Escherichia coli*. In the last decade the resistance of pathogenic germs causing UTI to one or more increasing antibiotics such as ampicillin and amoxicillin against *Escherichia coli* bacteria. Provision of appropriate therapy needs to be supported by the results of urine culture and sensitivity testing for antibiotics.

OBJECTIVE: This study aims to determine the pattern of *Escherichia coli* antibiotic susceptibility in urine culture so that prescribing antibiotics to patients with urinary tract infections is more appropriate.

METHOD: This study used a descriptive observational study design. Clinical isolate data of *E. coli* in urine culture and results of antibiotic sensitivity tests were obtained from Clinical Laboratory Installation. The collected data is then processed and analyzed using descriptive statistics and proportion tests.

RESULT: Based on the analysis of the antibiotic sensitivity test, the highest 3 resistant results were obtained: Ampicillin (92.4%), Sulfamethoxazole (70.7%), and Ceftriaxone (70.6%). While the 3 highest sensitive results were: Tigecycline (98.9%), Meropenem (97.8%), and Ertapenem (94.6%)

CONCLUSION: Based on the analysis of the antibiotic sensitivity test, the highest resistance was found: Ampicillin (92.4%). While the highest sensitive results are: Tigecycline (98.9%).

Keywords: Urinary tract infections, *Escherichia coli*, urine culture, antibiotic sensitivity test.