

**ISOLASI DAN UJI KEPEKAAN ANTIBIOTIK TERHADAP BAKTERI
KLEBSIELLA sp. DARI URINE PENDERITA INFEKSI SALURAN KEMIH
(ISK) DI UPTD BALAI LABORATORIUM KESEHATAN PROVINSI
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ABSTRAK

Infeksi saluran kemih (ISK) adalah kondisi infeksi yang terjadi akibat adanya pertumbuhan mikroorganisme, terutama bakteri, di sepanjang saluran kemih yang meliputi uretra, kandung kemih, ureter, hingga ginjal. Salah satu bakteri penyebab ISK yang sering ditemukan adalah *Klebsiella pneumoniae*, dari semua kasus ISK dengan ciri-ciri terasa terbakar saat buang air kecil. Penelitian ini bertujuan untuk mengisolasi dan mengidentifikasi morfologi bakteri *Klebsiella pneumoniae* pada sampel urine penderita ISK di UPTD Balai Laboratorium Kesehatan Provinsi Lampung, serta untuk mengetahui tingkat sensitivitas bakteri tersebut terhadap antibiotik cefixime, ciprofloxacin, dan cotrimoksazole. Penelitian ini dilakukan secara deskriptif observasional dan pengambilan *purposive sampling* dengan mengumpulkan 15-20 sampel urine pasien ISK, yang kemudian diisolasi menggunakan media MacConkey melalui metode *pour plate* dan *streak plate*, dilanjutkan uji biokimia, pewarnaan gram, serta pengamatan mikroskopis. Hasil penelitian menunjukkan bahwa dari 25 sampel urine, diperoleh 10 isolat atau 40 % *Klebsiella* sp. Hasil menunjukkan bahwa semua isolat memiliki sensitivitas tinggi terhadap ciprofloxacin, sementara cefixime dan cotrimoksazole menunjukkan variasi respons dengan kecenderungan sensitif dan tidak ditemukan resistensi. Kesimpulannya bahwa ketiga antibiotik tersebut, khususnya ciprofloxacin, masih efektif digunakan dalam terapi ISK yang disebabkan oleh *Klebsiella* sp. Dengan demikian, antibiotik cip, cfm, dan sxt dinilai efektif untuk digunakan dalam penanganan penderita infeksi saluran kemih.

Kata kunci: infeksi saluran kemih, *Klebsiella pneumoniae*, sensitivitas antibiotik

ABSTRACT

ISOLATION AND ANTIBIOTIC SUSPECTION TEST OF *KLEBSIELLA* sp. BACTERIA FROM URINE OF PATIENTS WITH URINARY TRACT INFECTION (UTI) AT THE HEALTH LABORATORY CENTER UPTD OF LAMPUNG PROVINCE

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Urinary tract infection (UTI) is an infectious condition that occurs due to the growth of microorganisms, especially bacteria, along the urinary tract including the urethra, bladder, ureters, and kidneys. One of the bacteria that often causes UTI is *Klebsiella pneumoniae*, from all UTI cases with the characteristics of a burning sensation when urinating. This study aims to isolate and identify the morphology of *Klebsiella pneumoniae* bacteria in urine samples of UTI patients at the UPTD Lampung Provincial Health Laboratory Center, as well as to determine the level of sensitivity of these bacteria to the antibiotics cefixime, ciprofloxacin, and cotrimoxazole. This study was conducted descriptively observational and purposive sampling by collecting 15-20 urine samples from UTI patients, which were then isolated using MacConkey media through the pour plate and streak plate methods, followed by biochemical tests, gram staining, and microscopic observation. The results showed that from 25 urine samples, 10 isolates 40 % of *Klebsiella* sp. were obtained. The results showed that all isolates had high sensitivity to ciprofloxacin, while cefixime and cotrimoxazole showed varying responses with a tendency to be sensitive and no resistance was found. The conclusion is that the three antibiotics, especially ciprofloxacin, are still effective in treating UTIs caused by *Klebsiella* sp. Thus, the antibiotics cip, cfm, and sxt are considered effective for use in treating patients with urinary tract infections.

Keywords: Urinary tract infection, *Klebsiella pneumoniae*, Antibiotic Sensitivity