

Jurnal Ilmiah  
**FARMASI**

(Scientific Journal of Pharmacy)



**JURNAL ILMIAH FARMASI**  
(SCIENTIFIC JOURNAL OF PHARMACY)

**PIMPINAN UMUM/ PENANGGUNG JAWAB**  
Dekan Fakultas Matematika dan Ilmu Pengetahuan Alam  
Universitas Islam Indonesia

**WAKIL PIMPINAN UMUM/ WAKIL PENANGGUNG JAWAB**  
Ketua Jurusan Farmasi FMIPA UII

**MITRA BESTARI**

1. Prof. Dr. Wiryatun Lestariana, Apt
2. Prof. Dr. Zullies Ikawati, Apt
3. Prof. Dr. Sudibyo Martono, Apt
4. Dr. Tedjo Yuwono, Apt
5. Prof. Dr. Dachriyanus, Apt
6. Prof. dr. Iwan Dwiprahasto, MMedSc, PhD
7. Prof. Dr. Lukman Hakim M.Sc., Apt
8. Prof. Dr. Achmad Fudholi, DEA, Apt
9. Prof. Dr. Ibnu Gholib Gandjar, DEA., Apt

**DEWAN EDITOR**

Ketua : Saepudin, M.Si., Apt  
Sekretaris : Rochmy Istikharah, M.Sc., Apt.  
Anggota : Vitarani Dwi Ananda Ningrum, M.Si., Apt  
Okti R. Mafruhah, MSc., Apt  
Dimas Adhi Pradana, MSc., Apt.  
Fithria DA. Suryanegara, MSc., Apt.  
Ari Wibowo, S.Farm., Apt  
Arba Pramudita Ramadani, MSc., Apt.  
Oktavia Indrati, S.Farm., Apt.

**Penerbit**

Jurusan Farmasi Fakultas Matematika dan Ilmu Pengetahuan Alam  
Universitas Islam Indonesia

**Alamat Penerbit**

Jurusan Farmasi FMIPA UII  
Jl. Kaliurang Km. 14,4 Yogyakarta 55584  
Telp. (0274) 896439 ext. 3047  
Email: jif@uii.ac.id

**UJI KEPEKAAN BAKTERI *Escherichia coli* HASIL ISOLASI DARI URIN  
PASIHEN RUMAH SAKIT Dr. Sardjito TERHADAP ANTIBIOTIK GOLONGAN  
 $\beta$ -LAKTAM**

**Sri harnanik \*) Sri Mulyaningsih \*) Asih Triastuti \*)**

\*) Jurusan Farmasi, FMIPA UII

**ABSTRACT**

Uncontrolled use of antibiotic caused the emergence of bacteria strain resistant toward of antibiotic. The sensitivity assay of *E. coli* toward  $\beta$ -lactam antibiotic has been done. The sensitivity assay was started with isolated bacteria from patients urine at Dr. Sardjito hospital followed by count total of colony/number of germ which growth and identified the bacteria. The Kirby Bauer method was performed. Antibiotic impregnated disk (ampicillin 30  $\mu$ g, sulbactam/ampicillin 20  $\mu$ g, cefotaxim 30  $\mu$ g, ceftazidime 30  $\mu$ g, ceftriaxon 30  $\mu$ g, ceftiprom 30  $\mu$ g, cefepim 30  $\mu$ g and imipenem 10  $\mu$ g) were placed on agar plate previously streaked with suspension of *E. coli* ( $1.10^8$  CFU/ml). The plates were incubated for 18-24 hours at 37<sup>0</sup> C. The diameters of the zone inhibition were measured, and compared to standar interpretive zone sizes. The result of the study showed that all of *E. coli* resistant toward antibiotic ampicillin; 65% resistant toward antibiotic sulbactam/ampicillin; 50% still sensitive toward antibiotic third cefalosporin generation that is cefotaxim, ceftazidime, ceftriaxon; more than 50% sensitive toward fourth cefalosporin generation like cefepim, ceftiprom and all of pathogen bacteria *E. coli* sensitive toward antibiotic imipenem.

Key Words : *E. coli*,  $\beta$ -lactam antibiotic, Sensitivity assay, Urine of patient hospital.