

## ABSTRAK

# KEPEKAAN *Klebsiella pneumoniae* ISOLAT KOMPONEN DENTAL UNIT RSGMP UNIVERSITAS JENDERAL SOEDIRMAN TERHADAP AMOKSISILIN DAN SIPIROFLOKSASIN

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*Dental unit* merupakan alat yang digunakan oleh dokter gigi untuk membantu perawatan gigi dan mulut yang dapat berpotensi menjadi *reservoir* terjadinya infeksi nosokomial di Rumah Sakit Gigi dan Mulut. Salah satu *agent* penyebab infeksi nosokomial adalah bakteri *Klebsiella pneumoniae*. Bakteri *K. pneumoniae* tergolong *Multi-drug Resistant* (MDR) terhadap antibiotik. Antibiotik amoksisilin dan siprofloksasin umum diresepkan oleh dokter gigi di RSGMP Unsoed sehingga memungkinkan terjadinya resistensi yang dapat berakibat meningkatkan infeksi nosokomial. Penelitian bertujuan untuk mengetahui kepekaan *K. pneumoniae* pada isolat *dental unit* di RSGMP Unsoed terhadap amoksisilin dan siprofloksasin. Jenis penelitian ini adalah eksperimental laboratoris secara *in vitro* dengan rancangan penelitian deskriptif. Bakteri diisolasi dari pegangan kursi, pegangan meja, dan pegangan lampu *dental unit* pada Unit Pelayanan Umum RSGMP Unsoed. Bakteri yang ditemukan diidentifikasi berdasarkan morfologi koloni, morfologi sel, dan uji biokimia sesuai dengan *Bergey's Manual of Systemic Bacteriology* dan *Manual Clinic of Microbiology*. Uji kepekaan bakteri terhadap antibiotik menggunakan metode *Kirby Bauer* yang hasilnya dibandingkan dengan standar BSAC dan CLSI. Hasil menunjukkan terdapat isolat *K. pneumoniae* yang terisolasi pada komponen pegangan lampu *dental unit* dan isolat masih sensitif terhadap antibiotik amoksisilin (25,7 mm) dan siprofloksasin (31,4 mm). Simpulan penelitian adalah *K. pneumoniae* isolat pegangan lampu *dental unit* di RSGMP Unsoed masih sensitif terhadap amoksisilin dan siprofloksasin.

**Kata kunci:** Amoksisilin, *Klebsiella pneumoniae*, Siprofloksasin.

## ABSTRACT

### ***SENSITIVITY of Klebsiella pneumoniae ISOLATE OF DENTAL UNIT COMPONENTS AT RSGMP JENDERAL SOEDIRMAN UNIVERSITY TO AMOXICILIN AND CIPROFLOXACIN***

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*Dental unit is a tool used by dentists in dental and oral treatment can potentially become a reservoir for nosocomial infections in the Dental Hospital. One of the agents causing nosocomial infections is Klebsiella pneumoniae. The bacteria is classified as Multi-drug Resistant (MDR) to antibiotics. Amoxicillin and ciprofloxacin are commonly prescribed by dentists at RSGMP Unsoed, thus allowing resistance to occur which can result in increased nosocomial infections. Aim of the study was to determine the sensitivity of K. pneumoniae in the dental unit at RSGMP Unsoed to amoxicillin and ciprofloxacin. This research was an experimental laboratory in vitro with descriptive design. Bacteria were isolated from chair handles, table handles, and lamp handles of the dental unit at the Unit Pelayanan Umum (UPU) of RSGMP Unsoed. The bacteria that have been found were identified by colony morphology, cell morphology, and biochemical tests of K. pneumoniae adjusted to Bergey's Manual of Systemic Bacteriology and Clinic Manual of Microbiology. Bacterial sensitivity to antibiotics was tested using the Kirby Bauer method and the results were compared with the standard of BSAC and CLSI. Results showed that there was a K. pneumoniae bacteria which was isolated from the dental unit lamp handle and showed that it was still sensitive to the antibiotics amoxicillin (25,7 mm) and ciprofloxacin (31,4 mm). The conclusion of the study was that K. pneumoniae isolated from the lamp handle of the dental unit at RSGMP Unsoed was still sensitive to amoxicillin and ciprofloxacin.*

**Keywords:** Amoxicillin, Ciprofloxacin, Klebsiella pneumoniae.