

**UJI KEPEKAAN METODE DISK DIFUSI DENGAN  
ANTIBIOTIK ERITROMISIN TERHADAP BAKTERI  
*Corynebacterium diphtheriae***

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**ABSTRAK**

*Corynebacterium diphtheriae* merupakan bakteri penyebab penyakit difteri. Tingginya kematian kasus difteri terutama disebabkan oleh keterlambatan diagnosis dan terapi. Salah satu langkah penanggulangan difteri adalah dengan pemberian profilaksis pada kasus, kontak dan karier. Antibiotik program pilihan yang direkomendasikan adalah penisilin dan eritromisin. Uji kepekaan bakteri terhadap antibiotik perlu terus dilakukan untuk mengetahui perkembangan resistensi bakteri. Berdasarkan hal tersebut, maka dirasa uji kepekaan antibiotik metode disk difusi perlu dikembangkan guna menunjang pemeriksaan kultur dan uji kepekaan antibiotik difteri di BBLKM Surabaya. Metode ini digunakan sebagai alternatif dari metode baku dilusi agar cair dan diharapkan mempunyai kesesuaian yang baik. Tujuan penelitian adalah untuk mengetahui hasil uji kepekaan metode disk difusi dengan antibiotik eritromisin terhadap bakteri *Corynebacterium diphtheriae* masih sensitif atau sudah resisten. Penelitian ini merupakan penelitian deskriptif observasional yang dilakukan pada 33 isolat positif *Corynebacterium diphtheriae* pada tahun 2023 di BBLKM Surabaya. Penelitian dilaksanakan di laboratorium mikrobiologi klinik BBLKM Surabaya pada bulan Mei 2024. Hasil penelitian menunjukkan hasil sensitif dengan diameter lebih dari 24 mm pada semua isolat yang diuji dengan rincian persentase sampel dengan zona hambat 25 mm sebanyak 6%, sampel dengan zona hambat 36 mm sebanyak 3%, sampel dengan zona hambat 37 mm sebanyak 19%, sampel dengan zona hambat 38 mm sebanyak 10%, sampel dengan zona hambat 39 mm sebanyak 22%, sampel dengan zona hambat 40 mm sebanyak 6%, sampel dengan zona hambat 41 mm sebanyak 19%, sampel dengan zona hambat 42 mm sebanyak 6% dan sampel dengan zona hambat 43 mm sebanyak 9%. Hal ini menunjukkan bahwa antibiotik eritromisin masih mempunyai efektivitas yang baik untuk digunakan sebagai antibiotik pilihan untuk pengobatan difteri.

**Kata kunci:** *Corynebacterium diphtheriae*, Uji kepekaan antibiotik, Eritromisin, Disk difusi

**DISK DIFFUSION METHOD OF ANTIBIOTIC SUSCEPTIBILITY  
TESTING WITH ERYTHROMYCIN ON  
*Corynebacterium diphtheriae***

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**ABSTRACT**

*Corynebacterium diphtheriae* is the bacterium that causes diphtheria. The high mortality of diphtheria cases is mainly due to delays in diagnosis and therapy. One of the measures to prevent diphtheria is by giving prophylaxis to cases, contacts and carriers. The recommended antibiotics of choice are penicillin and erythromycin. Bacterial susceptibility tests to antibiotics need to be carried out continuously to determine the development of bacterial resistance. Based on this, it is felt that the diffusion disk method antibiotic sensitivity test needs to be developed to support culture examination and antibiotic sensitivity testing for diphtheria at BBLKM Surabaya. This method is used as an alternative to the standard dilution method and is expected to have good suitability. The purpose of the study was to determine the results of the diffusion disk method sensitivity test with erythromycin antibiotics against *Corynebacterium diphtheriae* bacteria that are still sensitive or resistant. This study is an observational descriptive study conducted on 33 positive isolates of *Corynebacterium diphtheriae* in 2023 at BBLKM Surabaya. The research was conducted in the clinical microbiology laboratory of BBLKM Surabaya in May 2024. The results showed sensitive results with diameter of more than 24 mm in all isolates tested with details of the percentage of samples with inhibition zone of 25 mm was 6%, samples with inhibition zone of 36 mm was 3%, samples with inhibition zone of 37 mm was 19%, samples with inhibition zone of 38 mm was 10%, samples with inhibition zone of 39 mm was 22%, samples with inhibition zone of 40 mm was 6%, samples with inhibition zone of 41 mm was 19%, samples with inhibition zone of 42 mm was 6% and samples with inhibition zone of 43 mm was 9%. This shows that erythromycin still have good effectiveness to be used as the antibiotic of choice for the treatment of diphtheria.

**Keywords:** *Corynebacterium diphtheriae*, Susceptibility testing, Erythromycin, Disk diffusion