

KOMPATIBILITAS OBAT ANTIBIOTIK DENGAN OBAT-OBAT INJEKSI LAIN DI UNIT PERAWATAN INTENSIF

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INTISARI

Obat intravena sering diberikan pada pasien ICU yang memerlukan perawatan khusus untuk memberikan efek farmakologi lebih cepat. Pemberian beberapa jenis obat secara bersama-sama melalui jalur intravena memiliki risiko inkompatibilitas. Penelitian ini bertujuan untuk mengetahui hasil uji kompatibilitas fisik obat-obat antibiotik dengan obat-obat injeksi lain berdasarkan pemeriksaan Visual, Mikroskop, dan turbidimetri, dan untuk mengetahui hasil uji kompatibilitas kimia obat-obat antibiotik dengan obat-obat injeksi lain berdasarkan pemeriksaan pH. Pada penelitian ini, dibuat campuran masing-masing obat dengan volume perbandingan 1:1 dan dilakukan pengamatan pada periode waktu jam ke-0, 1, 4, dan 24. Hasil pengujian yang diperoleh, terdapat beberapa kombinasi antibiotik dan obat-obat injeksi lain yang menunjukkan adanya inkompatibilitas fisik sebanyak 57,89%, inkompatibilitas fisik visual yang diamati dari adanya perubahan warna, partikel, kekeruhan, pembentukan gas dan endapan. Pengamatan fisik mikroskop dianalisis dari partikel yang memiliki ukuran $\geq 10\mu\text{m}$ dan $\geq 25\mu\text{m}$ dan inkompatibilitas fisik dilihat dari persen nilai kekeruhan $\geq 0,5\%$. Inkompatibilitas kimia yang diamati dari adanya perubahan pH $\geq 0,5$ sebanyak 7,89%, dan inkompatibilitas fisika dan kimia sebanyak 34,21%. Berdasarkan penelitian ini, dapat disimpulkan bahwa sebanyak 38 (82,60%) dari 46 kombinasi mengalami inkompatibilitas fisik dan atau kimia.

Kata kunci : Inkompatibilitas, pasien ICU, intravena, antibiotik.

COMPATIBILITY OF ANTIBIOTIC DRUGS WITH OTHER INJECTED DRUGS IN THE INTENSIVE CARE UNIT

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ABSTRACT

Intravenous drugs are often given to ICU patients who require special care to provide faster pharmacological effects. Administration of several types of drugs together through the intravenous route has a risk of incompatibility. This study aims to determine the results of the physical compatibility test of antibiotic drugs with other injectable drugs based on visual inspection, microscopy, and turbidimetry, and to determine the results of the chemical compatibility test of antibiotic drugs with other injectable drugs based on pH examination. In this study, a mixture of each drug was made with a volume ratio of 1:1 and observations were made at the 0, 1, 4, and 24 hour time periods. The test results obtained, there are several combinations of antibiotics and other injection drugs that showed that there was a physical incompatibility of 57.89%, where the visual physical incompatibility was observed from the presence of color changes, the presence of particles, the presence of turbidity, the presence of gas formation and the presence of precipitates. Physically seen from the percent turbidity value, it is said to be incompatible if it has a turbidity percentage value of 0.5%. Chemical incompatibility observed from changes in pH 0.5 as much as 7.89%, and physical and chemical incompatibility as much as 34.21%. Based on this research, it can be concluded that 38 (82,60%) out of 46 combinations experienced physical and/or chemical incompatibility.

Keywords: Incompatibility, ICU patients, intravenous, antibiotics.