

Uji diagnostik deteksi morfin dan benzodiazepin pada urin pasien yang mengikuti program terapi rumatan metadon menggunakan metode biochip array technology = Diagnostic test to detect morphine and benzodiazepine in urine of patients with methadone maintenance therapy program using a biochip technology array

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Abstrak

[ABSTRAK

Pemeriksaan toksikologi forensik terdiri dari pemeriksaan kualitatif dan kuantitatif. Pemeriksaan menggunakan metode Biochip Array Technology merupakan metode baru dengan teknologi nano digunakan untuk pemeriksaan toksikologi forensik. Tujuan penelitian ini untuk mengetahui nilai diagnostik pemeriksaan morfin dan benzodiazepin menggunakan metode tersebut. Penelitian ini menggunakan desain penelitian potong lintang (Cross sectional), dengan sampel penelitian adalah seorang laki-laki atau perempuan berusia diatas 18 tahun sejumlah 20 orang yang diambil dengan cara Consecutive sampling pada bulan September 2014 di Puskesmas Johar Baru, Jakarta Pusat. Dari sampel tersebut yang diperiksa dengan GC/MS, 4 sampel terdeteksi positif morfin, dan 3 sampel terdeteksi benzodiazepin. Pemeriksaan dengan metode Biochip Array Technology, 4 sampel positif morfin, dan 6 sampel terdeteksi positif benzodiazepin. Hasil analisa uji diagnostik menunjukkan bahwa pemeriksaan morfin menggunakan metode tersebut memiliki sensitivitas sebesar 100 %, spesifisitas 100 %, nilai duga positif 100 % dan nilai duga negatif 100 %. Hasil uji diagnostik pemeriksaan benzodiazepin menggunakan metode tersebut adalah sensitivitas 100 %, spesifisitas 82,35%, nilai duga positif 50 % dan nilai duga negatif 100 %. Dapat disimpulkan bahwa metode ini sangat baik digunakan untuk pemeriksaan morfin sedangkan untuk pemeriksaan benzodiazepine kurang baik.

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ABSTRACT

Forensic toxicology examination consists of a qualitative and quantitative examination. Biochip Array Technology is a new method with nanotechnology used for Forensic toxicology examination. The aim is to know the identification value of Biochip Array Technology diagnostic test to forensic toxicology examination of Morphine and benzodiazepine in urine. Cross Sectional diagnostic study was applied to those who are male or female aged over 18 years old, 20 samples were taken consecutively in Agustus 2014 from primary health centres of Johar Baru, Jakarta Pusat. From these samples using the GC/MS, 4 samples are positive morphine, 3 samples are positive benzodiazepine. From Biochip Array Technology Examination, 4 samples are positive morphine, 6 samples are positive benzodiazepine. Diagnostic test analysis in morphine examination showed that Biochip Array Technology revealed 100 % sensitivity, 100 % specificity, 100 % positive predictive value, and 100 % negative predictive value. Diagnostic test analysis in benzodiazepine examination showed that Biochip Array Technology revealed 100 % sensitivity, 82,35 % specificity, 50 % positive predictive value and 100 % negative predictive value. It can be concluded that this method is reliable in morphine examination but only if the sample is controlled, while for benzodiazepine examination, this method is not reliable.

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