

## ABSTRAK

### HUBUNGAN ESTIMASI KADAR DIGOKSIN DALAM DARAH DENGAN KEJADIAN TOKSISITAS DIGOKSIN PADA PASIEN RAWAT INAP BANGSAL PENYAKIT DALAM RSUD Prof. dr. MARGONO SOEKARJO PURWOKERTO

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**Latar Belakang:** Digoksin merupakan obat dengan indeks terapi sempit untuk penyakit kardiovaskuler sehingga kenaikan atau penurunan sedikit kadar obat dalam darah dapat membuat kadar berada di luar rentang terapi. Oleh sebab itu, diperlukan pemantauan kadar digoksin dalam darah untuk mengurangi resiko toksisitas digoksin, salah satunya menggunakan metode farmakokinetika. Penelitian ini bertujuan untuk mengetahui persentase pasien yang memiliki estimasi kadar digoksin  $>2$  ng/ml, mengetahui tanda – tanda toksisitas yang muncul dan hubungan estimasi kadar digoksin dengan tanda toksisitas yang muncul pada pasien rawat inap bangsal penyakit dalam RSUD Prof. dr. Margono Soekarjo Purwokerto.

**Metode:** Penelitian bersifat prospektif selama 2 bulan melalui pencatatan rekam medis dan wawancara secara langsung kepada pasien. Sampel dipilih dengan cara total sampling sesuai kriteria inklusi dan eksklusi. Data diolah dengan analisis univariat sedangkan untuk hubungan estimasi kadar dengan tanda toksisitas yang muncul dihubungkan menggunakan uji koefisien kontingensi.

**Hasil:** Jumlah pasien dengan estimasi kadar digoksin  $<0,5$  ng/ml tidak ada;  $0,5 - 0,9$  ng/ml sebanyak 4 pasien (11,8%);  $1,0 - 2,0$  ng/ml sebanyak 17 pasien (50,0%) dan  $> 2$  ng/ml sebanyak 13 pasien (38,2%). Tanda toksisitas muncul pada 6 pasien (17,6%) dimana 3 pasien (8,8%) berada pada rentang  $\leq 2$  ng/ml dan 3 pasien (8,8%) berada pada rentang  $>2$  ng/ml. Tanda toksisitas yang paling banyak muncul yaitu perubahan EKG terkait aritmia. Estimasi kadar tunak digoksin dalam darah  $>2$  ng/ml tidak berhubungan langsung secara statistik (*p value* 0,513) dengan munculnya tanda – tanda toksisitas digoksin.

**Kesimpulan:** Kadar digoksin dalam darah harus dipantau lebih akurat lagi menggunakan sampling darah secara langsung.

Kata kunci : CHF, AF, estimasi kadar, tanda toksik digoksin

## ABSTRACT

### RELATIONSHIP BETWEEN ESTIMATION OF DIGOXIN LEVELS IN BLOOD WITH THE EVENTS OF DIGOXIN TOXICITY IN PATIENTS OF INNER DISEASE NATION IN RSUD Prof. dr. MARGONO SOEKARJO PURWOKERTO

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**Background:** Digoxin is a drug with a narrow therapeutic index for cardiovascular disease so that a few increase or decrease drug levels in the blood can make levels outside the therapeutic range. Therefore, monitoring of digoxin levels in the blood is needed to reduce the risk of digoxin toxicity, one of the method is pharmacokinetic. This study aimed to determine the percentage of patients who have an estimated digoxin level  $> 2$  ng/ml, to know the signs of toxicity that appeared and to know the correlation of estimation of digoxin levels with signs of toxicity that appears in inpatients RSUD Prof. dr. Margono Soekarjo Purwokerto.

**Method:** This was a prospective study for 2 months by recording medical records and direct interview to patients. Samples were selected by total sampling according to inclusion and exclusion criteria. Data were analysed by univariate analysis, while for the relationship of estimated levels with the signs of toxicity that appear associated using the contingency coefficient test.

**Results:** The number of patients with estimated digoxin levels  $<0.5$  ng / ml was absent; 0.5 - 0.9 ng/ml was 4 patients (11.8%); 1.0 - 2.0 ng/ml was 17 patients (50.0%) and  $>2$  ng/ml was 13 patients (38.2%). The sign of toxicity appeared in 6 patients (17.6%) where 3 patients (8.8%) were in the range  $\leq 2$  ng/ml and 3 patients (8.8%) were in the range  $>2$  ng/ml. The most common sign of toxicity was an ECG change related to arrhythmias. Based on statistical results, there was no correlation between the estimation of digoxin levels in the blood with the incidence of digoxin toxicity (p value 0.513).

**Conclusion:** Digoxin levels in the blood must be monitored more accurately using direct blood sampling.

**Keywords:** CHF, AF, estimated levels, digoxin toxic signs