

ABSTRACT

Background : Lithium heparin tubes can be used for creatinine examination without any significant difference with serum tube. Sample storage need to pay attention of examination, coagulant, container and stability.

Objective : His research to determine the effect of plasma lithium heparin storage at air-conditioned room temperature ($25\pm 1^{\circ}\text{C}$) on creatinine levels.

Methods : This research is a pre-experimental research with one group pretest posttest design. The population of this study were collage student of the Departement of Medical Laboratory Technology Poltekkes Kemenkes Yogyakarta. Total of 11 samples were examined immediately, stored for 4 hours, 8 hours and 24 hours, at a temperature of 25°C with a tolerance limit ($25\pm 1^{\circ}\text{C}$) which is maintained at a stable temperature using the help of AC. Statistical analysis test used data distribution test and Friedman test.

Results : The average effect of plasma lithium heparin storage at air-conditioned room temperature ($25\pm 1^{\circ}\text{C}$) for 4 hours was 0,99 mg/dl, 8 hours storage was 0,99 mg/dl and 24 hours storage was 1,01 mg/dl. The results showed that there was no effect of plasma lithium heparin storage time at air-conditioned room temperature ($25\pm 1^{\circ}\text{C}$) on creatinine levels ($p=0,525$).

Conclusion : There is no effect of storage time for plasma lithium heparin at air-conditioned room temperature ($25\pm 1^{\circ}\text{C}$) on creatinine levels.

Keywords : storage, creatinine, plasma lithium heparin

ABSTRAK

Latar Belakang: Tabung plasma *lithium heparin* dapat digunakan untuk pemeriksaan kreatinin tanpa adanya perbedaan signifikan dengan tabung serum. Penyimpanan sampel dapat dilakukan dengan memperhatikan jenis pemeriksaan, koagulan, wadah dan stabilitasnya.

Tujuan : Mengetahui pengaruh lama penyimpanan plasma *lithium heparin* pada suhu ruang ber-AC ($25\pm 1^{\circ}\text{C}$) terhadap kadar kreatinin.

Metode : Penelitian ini merupakan penelitian pra-eksperimen dengan rancangan *one group pretest posttest*. Populasi penelitian ini adalah mahasiswa Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta. Sampel dengan jumlah 11 sampel dilakukan pemeriksaan segera, penyimpanan 4 jam, 8 jam dan 24 jam, pada suhu 25°C dengan batas toleransi ($25\pm 1^{\circ}\text{C}$) yang dijaga kestabilan suhunya menggunakan bantuan AC. Uji analisis statistik menggunakan uji distribusi data dan uji *Friedman*.

Hasil : Rata-rata pengaruh lama penyimpanan plasma *lithium heparin* pada suhu ruang ber-AC ($25\pm 1^{\circ}\text{C}$) selama 4 jam sebesar 0,99 mg/dl, penyimpanan 8 jam sebesar 0,99 mg/dl dan penyimpanan 24 jam sebesar 1,01 mg/dl. Hasil penelitian menunjukkan tidak ada pengaruh lama penyimpanan plasma *lithium heparin* pada suhu ruang ber-AC ($25\pm 1^{\circ}\text{C}$) terhadap kadar kreatinin ($p=0,525$).

Kesimpulan : Tidak ada pengaruh lama penyimpanan plasma *lithium heparin* pada suhu ruang ber-AC ($25\pm 1^{\circ}\text{C}$) terhadap kadar kreatinin.

Kata Kunci : penyimpanan, kreatinin, plasma *lithium heparin*