

**PENGARUH PEMERIKSAAN PLASMA LITHIUM HEPARIN PADA  
PENUNDAAN 4 HARI SUHU *REFRIGERATOR* DAN *FREEZER*  
TERHADAP KADAR GLUKOSA DARAH**

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**ABSTRAK**

Diabetes Mellitus merupakan penyakit metabolism yang banyak kasusnya di Indonesia. Untuk membantu diagnosa Diabetes Mellitus diperlukan pemeriksaan laboratorium yaitu glukosa darah. Saat ini penggunaan tabung lithium heparin menjadi salah satu pilihan utama untuk pemeriksaan glukosa. Menurut CLSI stabilitas serum dan plasma secara umum adalah 48 jam pada suhu 2-8 °C. Berdasarkan rekomendasi dari pabrikan stabilitas plasma lithium heparin untuk glukosa tidak lebih dari 48 jam pada suhu 2-8°C. Di lapangan petugas laboratorium melakukan penyimpanan plasma lithium heparin sisa reaksi pada suhu 2-8 °C dan dibawah -20 °C selama 30 hari seperti prosedur penyimpanan cadangan serum. Penelitian ini bertujuan untuk melihat adanya pengaruh penyimpanan plasma lithium heparin setelah disimpan 4 hari pada suhu *refrigerator* dan *freezer*. Dilakukan pemeriksaan glukosa darah menggunakan plasma lithium heparin yang segera diperiksa <1 jam dan disimpan 4 hari di suhu *refrigerator* dan *freezer*. Sampel penelitian adalah 40 orang. Pengukuran glukosa mengguakan metode *Heksokinase*. Data di uji dengan statistik non parametrik Wilcoxon dan didapatkan Asymp.Sig (2-tailed) pada kelompok *refrigerator* dan kelompok *freezer* dibandingkan terhadap sampel yang diperiksa <1 jam adalah 0,000, dimana jika hasil Asymp. Sig. (2-tailed) < 0,05, maka Ha diterima. Artinya terdapat pengaruh kadar glukosa darah dari plasma lithium heparin yang disimpan pada suhu *refrigerator* dan *freezer* selama 4 hari.

**Kata kunci : glukosa, plasma lithium heparin, *refrigerator*, *freezer***

**THE EFFECT OF EXAMINATION OF LITHIUM HEPARIN PLASMA ON  
A 4-DAY DELAY OF REFRIGERATOR AND FREEZER TEMPERATURE  
ON BLOOD GLUCOSE LEVELS**

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**ABSTRACT**

*Diabetes Mellitus is a metabolic disease that many of the case in Indonesia. To help diagnose Diabetes Mellitus is required laboratory examination of blood glucose. Currently the use of lithium heparin tubes becomes one of the main options for glucose screening. According to the general CLSI of serum and plasma stability is 48 hours at 2-8 °C. Based on the recommendation from plasma stability manufacturer of lithium heparin for glucose no more than 48 hours at a temperature of 2-8 °C. In the field of laboratory officers do the storage of lithium heparin the remaining reaction at a temperature of 2-8 °C and below-20 °C for 30 days such as the procedure of storage of serum reserves. This research aims to see the influence of plasma storage of lithium heparin after storing 4 days at refrigerator and freezertemperature. Carried out blood glucose screening using the plasma of lithium heparin which is immediately examined < 1 hour and stored 4 days in refrigerator and freezertemperature. The research sample is 40 people. Glucose measurement has been the method of Hexokinase. The Data in the test with the non parametric statistic Wilcoxon and acquired Asymp. Sig (2-tailed) in the refrigerator Group and the freezer group as opposed to the samples examined < 1 hour is 0.000, which is if results Asymp. Sig. (2-tailed) < 0.05, then Ha accepted. This means that there is the influence of blood glucose levels of plasma heparin stored at refrigerator and freezer temperature for 4 days.*

**Keywords:** glucose, lithium heparin plasma, refrigerator, freezer