

PENGARUH VARIASI SUHU AWAL REAGEN TERHADAP KADAR GLUKOSA DARAH METODE ENZIMATIK

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ABSTRAK

Pemeriksaan glukosa darah metode enzimatis terdapat reagen warna berupa enzim. Salah satu faktor yang mempengaruhi aktivitas enzim adalah suhu. Pemeriksaan glukosa di Laboratorium oleh petugas yang dituntut harus segera mengeluarkan hasil pemeriksaan dapat memungkinkan mempercepat waktu pemeriksaan. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh variasi suhu awal reagen terhadap kadar glukosa darah metode enzimatis. Jenis penelitian ini adalah eksperimental. Sampel menggunakan serum responden sebanyak 16 mahasiswa D.III Analis Kesehatan Universitas Muhammadiyah Semarang Semester VI kelompok 1 Angkatan 2015 yang diperiksa pada suhu awal reagen 25°C dan 37°C. Penelitian dilakukan di Laboratorium Patologi Klinik FIKKES Universitas Muhammadiyah Semarang pada tanggal 26 April 2018. Data yang diperoleh dianalisa secara statistik dengan uji *Shapiro Wilk*, data berdistribusi normal dilakukan uji *independent t test*. Hasil penelitian dengan suhu awal reagen 25°C nilai rata-rata kadar glukosa sebesar 133,31 mg/dl, sedangkan suhu awal reagen 37°C sebesar 102,31 mg/dl. Uji *Independent sampel t test* didapatkan nilai signifikansi = 0,000 maka H_0 ditolak dan H_a diterima, sehingga dapat disimpulkan terdapat pengaruh bermakna variasi suhu awal reagen terhadap kadar glukosa darah yang diperiksa pada suhu awal reagen 25°C dan pada suhu awal reagen 37°C.

Kata Kunci : kadar glukosa darah, variasi suhu

INFLUENCE OF REAGEN TEMPERATURE VARIATIONS ON BLACK GLUCOSE CONDITIONS OF ENZYMATIC METHOD

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ABSTRACT

Blood glucose examination of enzymatic methods there are color reagents in the form of enzymes. One of the factors affecting enzyme activity is temperature. Inspection of glucose in the laboratory by the officers required to immediately release the results of the examination can allow speed up the examination time. The purpose of this study was to determine the effect of initial temperature variation of reagent on blood glucose enzymatic method. This type of research is experimental. The sample using the serum of respondents as much as 16 students D III Health Analyst University of Muhammadiyah Semarang Semester VI group 1 Force 2015 examined at the initial temperature reagents 25°C and 37°C. The research was conducted in Clinical Pathology Laboratory of FIKKES Muhammadiyah University of Semarang on April 26, 2018. Data obtained were analyzed statistically by Shapiro Wilk test, the normal distributed data was tested by independent t test. The result of the research with the initial temperature of reagent 25°C the average value of glucose level was 133,31 mg / dl, while the initial temperature of reagent 37° was 102,31 mg / dl. Test of Independent sample t test obtained value significance = 0.000 then H_0 is rejected and H_a accepted, so it can be concluded there is significant effect of initial temperature variation of reagent to blood glucose level examined at initial temperature reagent 25°C and at initial temperature reagent of 37°C.

Keywords: blood glucose level, temperature variation