

PENGARUH SUHU REAGEN TERHADAP HASIL PEMERIKSAAN KADAR KOLESTEROL TOTAL

Latiffah Khoirunisa¹, Sujono², Dhika Juliana Sukmana³
^{1,2,3}Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta
Jl. Ngadinegaran MJ 3 No.62, Mantrijeron, Yogyakarta

Email: latiffahkh87@gmail.com

ABSTRAK

Latar Belakang: Beberapa laboratorium melakukan pemeriksaan klinik dengan menggunakan reagen langsung dari kulkas tanpa diinkubasi pada suhu ruang terlebih dahulu. Sebelum digunakan untuk pemeriksaan reagen seharusnya didiamkan pada suhu ruang agar sesuai dengan prosedur. Reaksi enzimatik reagen dengan suhu dingin akan berbeda dengan reaksi enzimatik reagen dengan suhu ruang.

Tujuan: Mengetahui apakah suhu reagen berpengaruh terhadap hasil pemeriksaan kadar kolesterol total.

Metode: Jenis penelitian ini adalah *observational analitik*. Sampel yang digunakan berjumlah 36 yang diberi dua perlakuan, yaitu diperiksa menggunakan reagen suhu kulkas (8°C) dan menggunakan reagen suhu ruang (20°C). Pengolahan data dilakukan dengan uji statistik *Wilcoxon*.

Hasil: Hasil uji deskriptif didapatkan rerata kadar kolesterol yang diperiksa menggunakan suhu reagen (8°C) adalah 220,50 mg/dL, pada suhu (20°C) adalah 198,14 mg/dL sedangkan nilai selisish rata-rata keduanya 22,36 mg/dL. Hasil uji *Wilcoxon* didapatkan nilai $p=0,446$ yang artinya tidak ada pengaruh suhu reagen terhadap hasil pemeriksaan kadar kolesterol total. Penelitian ini secara klinis tidak ada pengaruh bermakna suhu reagen terhadap hasil pemeriksaan kadar kolesterol total.

Kesimpulan: Secara statistik dan klinis tidak ada pengaruh bermakna suhu reagen terhadap hasil pemeriksaan kadar kolesterol total.

Kata kunci: Kolesterol Total, Suhu Reagen, Metode Enzimatik.

THE EFFECT OF REAGENT TEMPERATURE ON TOTAL CHOLESTEROL LEVEL TEST RESULT

Latiffah Khoirunisa¹, Sujono², Dhika Juliana Sukmana³
^{1,2,3}Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta
Jl. Ngadinegaran MJ 3 No.62, Mantrijeron, Yogyakarta
Email: latiffahkh87@gmail.com

ABSTRACT

Background: Some laboratories perform clinical examinations by using reagents directly from the refrigerator without incubating at room temperature first. Before being used for examination, the reagents should be allowed to stand at room temperature in order to comply with the procedure. The enzymatic reaction of reagents with cold temperature will be different from the enzymatic reaction of reagents with room temperature.

Objective: To determine whether the temperature of the reagent affects the results of the total cholesterol level test.

Methods: This type of research is observational analytic. The 36 samples used were divided into two treatments, namely examined using refrigerator temperature reagent (8°C) and using room temperature reagent (20°C). Data processing was done with Wilcoxon statistical test.

Results: Descriptive test results showed that the mean cholesterol level examined using reagent temperature (8°C) was 220.50 mg/dL, at temperature (20°C) was 198.14 mg/dL while the average difference between the two was 22.36 mg/dL. Wilcoxon test results obtained a value of $p = 0.446$ which means there is no effect of reagent temperature on the results of the examination of total cholesterol levels. This study clinically there is no significant effect of reagent temperature on the results of the examination of total cholesterol levels.

Conclusion: Statistically and clinically there is no significant effect of reagent temperature on the results of the examination of total cholesterol levels.

Keywords: Total Cholesterol, Reagent Temperature, Enzymatic Method.