

## ABSTRAK

**Latar Belakang:** Pengolahan dan penyimpanan spesimen yang tidak tepat dapat mempengaruhi hasil pemeriksaan laboratorium salah satunya pemeriksaan trigliserida. Pemeriksaan trigliserida dapat menggunakan sampel serum atau plasma. Sampel serum untuk pemeriksaan trigliserida mempunyai toleransi penyimpanan pada suhu ruang selama 2 hari. Serum harus segera dipisahkan dari sel-sel darah dan disimpan dalam lemari es supaya distribusi trigliserida tidak berubah dan enzim-enzim tidak sempat mengubah proporsi lipoprotein. Rendahnya aktifitas Lipoprotein Lipase akan dapat meningkatkan kadar trigliserida.

**Tujuan Penelitian:** Mengetahui perbedaan kadar trigliserida pada serum segera diperiksa, disimpan selama 2 dan 3 hari pada suhu ruang.

**Metode Penelitian:** Jenis penelitian adalah observasional analitik dengan desain penelitian *cross sectional*. Sampel yang digunakan yaitu serum yang berasal dari 15 orang. Sampel serum dipindahkan ke dalam per tube dan disimpan pada suhu ruang (20-25°C). Serum dilakukan pemeriksaan segera, disimpan 2 dan 3 hari pada suhu ruang. Data primer yang diperoleh kemudian dianalisis secara deskriptif, uji *repeated measures ANOVA* jika data berdistribusi normal, dan uji *Friedman* jika data tidak berdistribusi normal.

**Hasil Penelitian:** Hasil penelitian menunjukkan bahwa ada perbedaan rerata hasil pemeriksaan serum segera diperiksa, disimpan 2 dan 3 hari pada suhu ruang yaitu 84,47 mg/dL; 94,35 mg/dL; dan 101,75 mg/dL. Hasil analisis deskriptif menunjukkan kenaikan rerata kadar trigliserida seiring lama waktu penyimpanan pada suhu ruang. Hasil uji *Friedman* menunjukkan  $p(0,000) < 0,05$ .

**Kesimpulan:** Ada perbedaan kadar trigliserida pada serum segera diperiksa, disimpan 2 hari dan 3 hari pada suhu ruang.

**Kata Kunci:** Kadar trigliserida, serum, waktu penyimpanan.

## ABSTRACT

**Background:** Improper processing and storage of specimens can affect the results of laboratory tests, one of which is the triglyceride test. Triglyceride tests can use a serum or plasma sample. Serum samples for triglyceride testing have a storage tolerance at room temperature for 2 days. Serum must be immediately separated from the blood cells and stored in the refrigerator so that the distribution of triglycerides does not change and the enzymes do not have time to change the proportion of lipoproteins. The low activity of Lipoprotein Lipase will increase blood triglyceride levels.

**Research Objective:** To determine the difference in serum triglyceride levels, immediately checked, stored for 2 and 3 days at room temperature.

**Research Methods:** This research was an analytic observational study with a study design *cross sectional*. The sample used was serum from 15 people. Serum samples were transferred to a PCR tube and stored at room temperature (20-25°C). Serum was examined immediately, stored for 2 and 3 days at high temperature. The primary data obtained were then analyzed descriptively and statistically including data distribution test and *repeated measures ANOVA* test if the data were normally distributed, and *Friedman* test if the data were not normally distributed.

**Results:** The results showed that there was a difference in the mean results of the examination of the serum immediately checked, stored for 2 and 3 days at room temperature (20-25°C), namely 84.47 mg/dL; 94.35 mg/dL; and 101.75 mg/dL. The results of descriptive analysis showed an increase in the mean of triglyceride levels over the long storage time at room temperature. Test results *Friedman* showed  $p(0.000) < 0.05$ , which means that there is a difference in serum triglyceride levels, checked immediately, stored for 2 and 3 days at room temperature.

**Conclusion:** There are differences in serum triglyceride levels, checked immediately, stored for 2 days and 3 days at room temperature (20-25°C).

**Keywords:** Triglyceride levels, serum, storage time.