

## ABSTRAK

**Latar Belakang:** Pemeriksaan laboratorium perlu dilakukan untuk menegakkan diagnosis penyakit. Pemeriksaan asam urat yang mengalami penyimpanan mengakibatkan adanya penurunan kadar yang disebabkan perubahan konsentrasi protein yang dapat dideteksi dan menurunkan proporsi protein ke tingkat yang lebih rendah selama penyimpanan. Sampel serum untuk pemeriksaan asam urat mempunyai stabilitas penyimpanan selama 3 hari pada suhu ruang (20-25°C).

**Tujuan Penelitian:** Mengetahui perbedaan kadar asam urat pada serum segera diperiksa, disimpan selama 3 hari dan 4 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 *pcr tube* dan disimpan pada suhu ruang (20-25°C). Serum dilakukan pemeriksaan segera, disimpan 3 hari dan 4 hari pada suhu ruang (20-25°C). Data primer yang diperoleh kemudian dianalisis secara deskriptif dan statistik yang meliputi uji distribusi data serta uji *repeated measures ANOVA*.

**Hasil Penelitian:** Hasil penelitian menunjukkan bahwa ada perbedaan rerata hasil pemeriksaan serum segera diperiksa, disimpan 3 hari dan 4 hari pada suhu ruang (20-25°C) yaitu 1,16 mg/dL; 0,35 mg/dL; dan 1,51 mg/dL. Hasil uji *repeated measures ANOVA* menunjukkan  $p(0,008) < 0,05$  yang berarti bahwa ada perbedaan kadar asam urat pada serum segera diperiksa, disimpan 3 hari dan 4 hari pada suhu ruang (20-25°C). Kadar asam urat pada serum yang disimpan selama 4 hari telah memberikan perbedaan yang signifikan secara statistik.

**Kesimpulan:** Ada perbedaan kadar asam urat pada serum segera diperiksa, disimpan 3 hari dan 4 hari pada suhu ruang (20 – 25° C).

**Kata Kunci:** Kadar asam urat, serum, waktu penyimpanan.

## ABSTRACT

**Background:** Laboratory tests need to be done to make a diagnosis of the disease. Examination of stored uric acid results in a decrease in levels due to a detectable change in protein concentration and reduces the proportion of protein to a lower level during storage. Serum samples for uric acid testing have storage stability for 3 days at room temperature (20-25°C).

**Research Objective:** Determine the difference in serum uric acid levels, immediately checked, stored for 3 days and 4 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 3 days and 4 days at room temperature (20-25°C). The primary data obtained were then analyzed descriptively and statistically including data distribution test and test *repeated measures ANOVA*.

**Results:** The results showed that there were differences in the mean results of the examination of the serum immediately checked, stored for 3 days and 4 days at room temperature (20-25°C), namely 1.16 mg / dL; 0.35 mg / dL; and 1.51 mg / dL. The results of the test *repeated measures ANOVA* showed  $p (0.008) < 0.05$ , which means that there was a difference in uric acid levels in the serum, which was examined immediately, stored for 3 days and 4 days at room temperature (20-25°C). Serum uric acid levels stored for 4 days provided a statistically significant difference.

**Conclusion:** There is a difference in uric acid levels in the serum immediately checked, stored for 3 days and 4 days at room temperature (20-25 ° C).

**Keywords:** uric acid levels, serum, storage time.