

**KADAR KREATININ PADA SERUM PASIEN HIPERTENSI YANG
DIPERIKSA SEGERA, SETELAH DISIMPAN 4 DAN 8 JAM PADA
SUHU 20-25 °C**

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ABSTRAK

Latar Belakang: Hipertensi menyebabkan kerusakan nefron ginjal yang mempengaruhi kadar kreatinin serum. Berkurangnya jumlah nefron akibat kerusakan, menyebabkan nefron yang masih tersisa mengambil alih fungsi semakin berat. Tahap pra analitik pembuatan serum meliputi suhu dan waktu yang digunakan untuk penyimpanan serum. Selain itu pemeriksaan tambahan akibat suatu kondisi sering kali dilakukan pada sampel yang sudah ada di laboratorium. Lamanya penyimpanan serum dengan suhu yang tidak tepat dapat mengakibatkan perubahan kadar kreatinin. Oleh karena itu pemeriksaan kadar kreatinin harus segera dilakukan setelah sampel didapatkan atau harus sesuai standar operasional prosedur sehingga didapatkan hasil yang sebenarnya.

Tujuan Penelitian: Mengetahui perbedaan kadar Kreatinin yang diperiksa segera, disimpan selama 4 dan 8 jam pada suhu 20-25 °C.

Metode Penelitian: Jenis penelitian ini adalah pra eksperimen dengan desain *one group pretest posttest design*. Subjek penelitian adalah pasien penderita hipertensi Puskesmas Gondokusuman 2 sebanyak 40 orang dengan teknik *purposive sampling*. Penelitian dilakukan pada bulan Oktober 2023. Kadar Kreatinin diukur dengan alat *Chemistry Analyzer Architect c4000* dengan metode *enzimatik*. Data primer yang diperoleh kemudian dianalisis secara deskriptif dan statistik yang meliputi uji distribusi data dan uji *Friedman*.

Hasil Penelitian: Hasil penelitian menunjukkan bahwa rerata hasil pemeriksaan kadar kreatinin serum diperiksa segera, disimpan 4 dan 8 jam pada suhu 20-25 °C yaitu 0,88 mg/dL; 0,90 mg/dL dan 0,91 mg/dL. Hasil analisis deskriptif menunjukkan kenaikan rerata kadar kreatinin pada penyimpanan suhu 20-25°C. Hasil uji statistik non parametrik *Friedman* menunjukkan $p(0,000) < 0,05$.

Kesimpulan: Terdapat perbedaan kadar Kreatinin pada serum pasien hipertensi yang diperiksa segera dan yang disimpan selama 4 dan 8 jam pada suhu 20-25 °C.

Kata Kunci: Kadar kreatinin, serum pasien hipertensi, waktu penyimpanan.

**CREATININE LEVEL IN HYPERTENSION PATIENT SERUM WHO
CHECKED IMMEDIATELY, STORED AT 4 AND 8 HOURS IN
TEMPERTURE 20-25 °C**

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ABSTRACT

Background: Hypertension can lead kidney nephron damage which affects serum creatinine levels. The loss of nephrons due to the damage makes the normal nephrons to take over dan have heavy functions. The pre-analytical stage of making serum is the temperature and time used for serum storage. Additional tests due to some conditions are often carried out on samples that already in the laboratory. Prolonged storage of serum in an inappropriate temperature can changes the result of creatinine levels. Therefore, checking creatinine levels must be checked immediately after the sample collected or suitable with standard operational procedures so that actual results are obtained.

Research Objective: To find out the difference in creatinine levels, check it immediately, store it for 4 and 8 hours at a temperature of 20-25 °C.

Research Methods: Type of the research is pre-experimental with a one group pretest posttest design. The research subjects are 40 patients suffering from hypertension patient Puskesmas Gondokusuman 2 using purposive sampling technique. The research was conducted in October 2023. Creatinine levels were measured using a Chemistry Analyzer Architect c4000 using the enzymatic method. The primary data obtained were then analyzed descriptively and statistically which included data distribution tests and the Friedman test.

Result: The result showed there was a difference in the mean result of creatinine levels that immediately checked, stored 4 and 8 hours in temperature 20-25 °C namely 0.88 mg/dL; 0.90 mg/dL and 0.91 mg/dL

Conclusion: There are differences in creatinine levels in the serum of hypertension patients who checked immediately and were stored for 4 and 8 hours at a temperature of 20-25 °C.

Keywords: Creatinine levels, hypertension patient serum, storage time.