

**KADAR KREATININ PADA SERUM PASIEN HIPERTENSI YANG  
DIPERIKSA SEGERA, SETELAH DISIMPAN  
4 JAM DAN 8 JAM PADA SUHU 2-8 °C**

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**ABSTRAK**

**Latar Belakang:** Hipertensi yang dikenal sebagai *silent killer* yang dapat menyebabkan gagal ginjal. Salah satu parameter yang umum digunakan untuk menilai fungsi ginjal adalah kadar kreatinin. Pemeriksaan laboratorium tiap parameternya harus dilakukan segera termasuk pemeriksaan kreatinin. Namun dalam praktiknya, di laboratorium sering ditemukan keadaan yang menyebabkan pemeriksaan tidak dapat segera dilakukan seperti permintaan tambahan setelah dilakukan pemeriksaan laboratorium, kendala teknis atau alat yang rusak sehingga perlu dilakukan penyimpanan sampel yang benar untuk menjaga kestabilan sampel agar didapatkan hasil yang akurat.

**Tujuan:** Mengetahui perbedaan kadar Kreatinin pada serum pasien hipertensi yang segera diperiksa, setelah disimpan 4 jam dan 8 jam pada suhu 2-8 °C.

**Metode:** Jenis penelitian ini adalah pra eksperimen dengan desain *one group pretest posttest design*. Subjek penelitian adalah pasien penderita hipertensi di Puskesmas Gondokusuman II sebanyak 40 orang dengan teknik *purposive sampling*. Penelitian dilakukan pada bulan Oktober 2023. Kadar Kreatinin diukur dengan alat kimia *analyzer Architect Ci 4100* dengan metode enzimatik.

**Hasil:** Responden penelitian sebagian besar berjenis kelamin laki-laki (52,5%) dan berada dalam kelompok umur dewasa (19-44 tahun). Analisis distribusi hasil pemeriksaan kreatinin menunjukkan rerata yang hampir sama antara serum yang diperiksa segera (0,88), disimpan selama 4 jam (0,88), dan disimpan selama 8 jam (0,87). Data normalitas menunjukkan ketidaknormalan distribusi, sehingga dilakukan uji *Friedman* sebagai alternatif analisis non-parametrik. Hasil uji *Friedman* menunjukkan nilai signifikan 0,077 ( $p \geq 0,05$ ).

**Kesimpulan:** Tidak terdapat perbedaan kadar Kreatinin pada serum pasien penderita hipertensi yang diperiksa segera dan yang disimpan selama 4 jam dan 8 jam pada suhu 2-8 °C.

**Kata kunci:** Penyimpanan serum, suhu, kadar Kreatinin pasien hipertensi

## **CREATININE LEVELS IN THE SERUM OF HYPERTENSION PATIENTS CHECKED IMMEDIATELY, AFTER STORING 4 HOURS AND 8 HOURS AT 2-8 °C**

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### **ABSTRACT**

**Background:** Hypertension is known as silent killer which can cause kidney failure. One of the parameters commonly used to assess kidney function is creatinine levels. Laboratory examination of each parameter must be carried out immediately, including creatinine examination. However, in practice, in laboratories, situations are often found that cause the examination to not be carried out immediately, such as additional requests after laboratory examinations, technical problems or damaged equipment, so it is necessary to store samples correctly to maintain sample stability in order to obtain accurate results.

**Objective:** To determine the difference in creatinine levels in the serum of hypertensive patients who were immediately examined, after being stored for 4 hours and 8 hours at a temperature of 2-8°C.

**Method:** This type of research is pre-experimental by design one group pretest posttest design. The research subjects were 40 patients with hypertension at Puskesmas Gondokusuman II using the technique purposive sampling. The research was conducted in October 2023. Creatinin levels were measured using chemical analyzer Architect C4100 by enzymatic method.

**Results:** Most of the research respondents were male (52.5%) and were in the adult age group (19-44 years) with the largest number of respondents. Analysis of the distribution of creatinine examination results showed that the mean was almost the same between serum examined immediately (0.88), stored for 4 hours (0.88), and stored for 8 hours (0.87). Normality data shows that the distribution is not normal, so a test is carried out Friedman as an alternative to non-parametric analysis. Test results Friedman shows a significant value of 0.077 ( $p \geq 0,05$ ).

**Conclusion:** There was no difference in creatinine levels in the serum of patients with hypertension who were examined immediately and those who were stored for 4 hours and 8 hours at a temperature of 2-8 °C.

**Keywords:** Serum storage, temperature, Creatinine levels in hypertensive patients