

**PERBEDAAN KADAR KALIUM 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 adalah penyakit yang disebabkan karena meningkatnya tekanan darah di atas normal (>140/90 mmHg). Pada pasien hipertensi nilai kalium darah cenderung lebih rendah dibandingkan pada normotensi. Tahap pra analitik merupakan tahap penting dan menyumbang 50% -75% kesalahan di laboratorium yang salah satunya disebabkan karena penanganan sampel. Permintaan penambahan pemeriksaan menggunakan sampel yang sudah ada di laboratorium dalam waktu yang lama dikhawatirkan terjadi perubahan kestabilan sampel dan dapat mempengaruhi keakuratan hasil sehingga diperlukan penyimpanan sampel dengan benar.

**Tujuan Penelitian** : untuk mengetahui perbedaan kadar kalium serum pasien hipertensi yang diperiksa segera, setelah disimpan selama 4 dan 8 jam pada suhu 20-25°C.

**Metode Penelitian** : Jenis penelitian ini adalah pra-eksperimen dengan desain penelitian *One Group Pre-Post Test*. Sampel yang digunakan berupa serum pasien hipertensi sebanyak 40 sampel dan masing-masing terdiri dari 3 kelompok perlakuan yaitu pemeriksaan segera, penyimpanan selama 4 jam dan penyimpanan selama 8 jam pada suhu 20-25°C. Data hasil pemeriksaan kalium dianalisis secara deskriptif berupa tabel dan diagram batang serta secara statistik menggunakan Uji *Friedman* pada SPSS 20.0 *for Windows*.

**Hasil Penelitian** : Hasil penelitian ini menunjukkan adanya peningkatan rerata hasil pemeriksaan kadar kalium. Analisis statistik menunjukkan  $p(0,000) < 0,05$  yang artinya ada perbedaan kadar kalium serum pasien hipertensi yang diperiksa segera, setelah disimpan 4 dan 8 jam pada suhu 20-25°C.

**Kesimpulan** : Ada perbedaan kadar kalium serum pasien hipertensi yang diperiksa segera, setelah disimpan 4 dan 8 jam pada suhu 20-25°C.

**Kata Kunci** : hipertensi, penyimpanan darah, suhu 20-25 °C, kalium

# **DIFFERENCES IN SERUM POTASSIUM LEVELS OF HYPERTENSION PATIENTS EXAMINED IMMEDIATELY, AFTER STORING FOR 4 AND 8 HOURS AT 20-25°C**

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## **ABSTRACT**

**Background:** Hypertension is a disease caused by increased blood pressure above normal (>140/90 mmHg). In hypertensive patients potassium values lower than normotensives. The pre-analytical is an important stage and gives 50%-75% mistakes that caused by several factors, like sample handling. Requested for additional examinations using samples that have been in the laboratory for a long time are feared to change the stability of the sample that could be affected the accuracy of the results so that proper sample storage is needed.

**Research Objective:** to determine the difference of potassium levels in hypertensive patients were examined immediately, after being stored 4 and 8 hours at 20-25°C.

**Research Methods:** Type of research is a pre-experiment with a One Group Pre-Post Test design. Fourthy samples from hypertensive patients were used and consisted of 3 groups that were examined immediately, was stored for 4 hours and was stored for 8 hours at 20-25°C. Data were analyzed descriptively in the form of tables and bar charts and also statistically using Friedman Test on SPSS 20.0 for Windows.

**Research Results:** The results of this study showed an increase in the average results of potassium level. Statistical analysis showed  $p(0.000) < 0.05$  that means there is a difference in potassium levels of hypertensive patients that examined immediately, after 4 and 8 hours of storage at 20-25°C.

**Conclusion:** There is a difference in potassium levels of hypertensive patients were examined immediately, after being stored 4 and 8 hours at 20-25°C.

**Keywords:** hypertension, blood storage, temperature at 20-25°C, potassium