

BESAR PENINGKATAN KADAR KALIUM PADA PERLAKUAN PEMINDAHAN SAMPEL DARAH TANPA MELEPAS JARUM SPUIT

Naili Hilda Atifa Husna¹, Roosmarinto², Zulfikar Husni Faruq³
^{1,2,3}Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta
Jl. Ngadinegaran MJ III/62 Mantriweron, Kota Yogyakarta
¹Email: nailihilda@gmail.com

ABSTRAK

Latar Belakang : Perlakuan sampel dalam proses pra analitik khususnya cara memasukkan darah dari spuit ke dalam tabung vacutainer dengan cara disemprotkan apalagi tanpa melepas jarum, berpotensi menyebabkan hemolisis. Sampel darah hemolisis dapat meningkatkan kadar analit dalam serum sehingga tidak mencerminkan kondisi klinis pasien yang sesungguhnya. Hemolisis mempengaruhi hasil pemeriksaan kimia darah salah satunya kadar kalium.

Tujuan Penelitian : Mengetahui perbedaan kadar kalium pada perlakuan pemindahan sampel darah dengan melepas jarum spuit dan tanpa melepas jarum spuit, dan persentase peningkatan kadar kalium pada perlakuan pemindahan sampel darah tanpa melepas jarum spuit.

Metode Penelitian : Jenis penelitian yang digunakan observasional analitik dengan pendekatan *cross sectional*. Pengambilan 16 sampel secara *purposive random sampling* dari mahasiswa Teknologi Laboratorium Medis semester 8. Sampel kemudian dibagi menjadi 2 kelompok, kelompok pertama sebagai kontrol dengan cara memindahkan sampel darah dengan melepas jarum dan kelompok kedua pemindahan sampel darah tanpa melepas jarum spuit. Data kemudian dianalisis dengan uji *Paired Sample T Test* menggunakan SPSS 25.0 *for windows*.

Hasil Penelitian : Hasil penelitian menunjukkan adanya peningkatan rerata kadar kalium pada sampel darah yang dipindahkan tanpa melepas jarum spuit. Hasil analisis statistik menggunakan *Paired Sample T Test* menunjukkan $p(0,000) < 0.05$ yang menunjukkan ada perbedaan signifikan kadar kalium pada sampel darah yang dipindahkan tanpa melepas jarum dan kadar kalium dengan melepas jarum. Kadar kalium pada perlakuan pemindahan sampel darah tanpa melepas jarum mengalami peningkatan sebesar 28,91 %.

Kesimpulan : Ada perbedaan signifikan kadar kalium pada sampel darah yang dipindahkan tanpa melepas jarum dan kadar kalium dengan melepas jarum. Selisih kadar kalium pada pemindahan sampel darah tanpa melepas jarum spuit dan dengan melepas jarum spuit adalah 1,2 mmol/L dengan peningkatan 28.91%.

Kata Kunci : Kadar kalium, pemindahan sampel darah dengan melepas jarum, pemindahan sampel darah tanpa melepas jarum

BIG INCREASE OF POTASSIUM LEVELS IN THE TREATMENT OF THE TRANSFER OF BLOOD SAMPLES WITHOUT REMOVING THE SPUIT NEEDLE

Naili Hilda Atifa Husna¹, Roosmarinto², Zulfikar Husni Faruq³
^{1,2,3}Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta
Jl. Ngadinegaran MJ III/62 Mantrijeron, Kota Yogyakarta
¹Email: nailihilda@gmail.com

ABSTRACT

Background :The sample treatment in the pre-analytic process, especially how to insert blood from the syringe into the vacutainer tube by spraying it, especially without removing the needle, has the potential to cause hemolysis. Hemolysis blood samples can increase the levels of analytes in the serum so that they do not reflect the actual clinical condition of the patient. Hemolysis affects the results of blood chemistry examinations, one of which is potassium levels.

Research purposes :Knowing the difference in potassium levels in the treatment of transferring blood samples by removing the needle and without removing the syringe needle, and the percentage increase in potassium levels transferred without removing the syringe needle.

Research methods :This type of research used analytic observational with a cross sectional approach. The collection of 16 samples was purposive random sampling from 8th semester Medical Laboratory Technology students. The samples were then divided into 2 groups, the first group as a control by removing the blood sample by removing the syringe needle and the second group transferring the blood sample without removing the syringe needle. The data was then analyzed by using the Paired Sample T Test using SPSS 25.0 for windows.

Research result :The results showed an increase in the average potassium level in blood samples transferred without removing the syringe needle. The results of statistical analysis using the Paired Sample T Test showed $p(0.000) < 0.05$ which means there was a significant difference in potassium levels in blood samples transferred without removing the needle and potassium levels by removing the needle. Potassium levels there was a treatment of transferring blood samples without removing the syringe needle increased by 28.91%

Conclusion :There was a significant difference in potassium levels in blood samples transferred without removing the syringe needle and potassium levels with removing the needle. The difference in potassium levels on transferring blood samples without removing the needle and removing the syringe was 1.2 mmol/L with an increase of 28.91%.

Keywords: Potassium levels, transfer of blood samples by removing the needle, transfer of blood samples without removing the needle