

PERBEDAAN KADAR KREATININ PADA SERUM DENGAN VACUTAINER RAPID SERUM TUBE (RST) DAN VACUTAINER PLAIN

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ABSTRAK

Latar Belakang: Kecepatan pemeriksaan laboratorium merupakan faktor penting dalam menanggapi kasus *emergency*. Dokter sering meminta pemeriksaan kreatinin secara *cito* untuk mendeteksi gangguan fungsi ginjal. *Vacutainer Rapid Serum Tube (RST)* merupakan tabung pengumpul darah yang mampu mempercepat TAT pemeriksaan.

Tujuan: Tidak terdapat perbedaan kadar kreatinin pada serum dengan *vacutainer RST* dan *vacutainer plain*.

Metode: Penelitian ini adalah observasional analitik dengan desain *cross sectional*. Populasinya adalah Mahasiswa Program Studi Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta. Jumlah sampel yang digunakan sebanyak 40 mahasiswa. Data yang diperoleh dianalisis secara statistik dengan *Independent-Samples T Test* dan Korelasi *Pearson*.

Hasil: Hasil uji *Independent-Samples T Test* diperoleh nilai Sig. 0.926 yang berarti tidak terdapat perbedaan terhadap kadar kreatinin pada serum dengan *vacutainer RST* dan *vacutainer plain*. Rerata kadar kreatinin pada serum dengan *vacutainer RST* sebesar 0.8237 mg/dl sedangkan dengan *vacutainer plain* sebesar 0.8207 mg/dl.

Rerata waktu pembekuan darah dengan *vacutainer RST* lebih cepat, selisih dengan waktu pembekuan *vacutainer plain* sebesar sebesar 18 menit 56 detik (93,5 %). Rerata *Turn Around Time (TAT)* pemeriksaan dengan *vacutainer RST* lebih cepat dari *vacutainer plain*, selisih TAT dengan *vacutainer plain* sebesar 54 menit (69 %).

Hasil uji Korelasi *Pearson* nilai Sig. 0.731 menunjukkan terdapat hubungan positif yang kuat antara kadar kreatinin pada *vacutainer RST* dan *vacutainer plain*.

Kesimpulan: Tidak terdapat perbedaan kadar kreatinin pada serum dengan *vacutainer RST* dan *vacutainer plain* sehingga *vacutainer RST* dapat digunakan untuk mempercepat hasil pemeriksaan laboratorium *cito* pada kasus *emergency*.

Kata Kunci: kreatinin serum, *vacutainer Rapid Serum Tube*, *vacutainer plain*, TAT

DIFFERENCES IN SERUM CREATININE LEVELS WITH RAPID SERUM TUBE (RST) VACUTAINERS AND PLAIN VACUTAINERS

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ABSTRACT

Background: The speed of laboratory examination is important in responding to emergency cases. Doctors often request a cito creatinine examination to detect impaired kidney function. A Vacutainer Rapid Serum Tube (RST) is a blood collection tube that can accelerate the TAT (Turn Around Time) examination.

Objective: There is no difference in serum creatinine levels with the RST vacutainer and plain vacutainer.

Method: This study is an observational analytic study with a cross-sectional design. The population is students of the Medical Laboratory Technology Study Program, Poltekkes Kemenkes Yogyakarta. The sample used was 40 students. The data obtained were analyzed statistically using the Independent-Samples T-Test and Pearson Correlation.

Results: The results of the Independent-Samples T Test obtained a Sig. Value of 0.926, which means that there is no difference in serum creatinine levels with RST vacutainer and plain vacutainer. The average creatinine level in serum with RST vacutainer was 0.8237 mg/dl while with plain vacutainer it was 0.8207 mg/dl.

The average blood clotting time with an RST vacutainer was faster, the difference with a plain vacutainer clotting time was 18 minutes 56 seconds (93.5%). The average TAT examination with an RST vacutainer was faster than plain vacutainer, the difference with plain vacutainer was 54 minutes (69%).

The results of the Pearson Correlation test with a Sig. value of 0.731 showed that there was a strong positive relationship between creatinine levels in RST vacutainer and plain vacutainer.

Conclusion: There was no difference in serum creatinine levels with RST vacutainer and plain vacutainer so RST vacutainer can be used to accelerate the results of the cito laboratory examination in emergency cases.

Keywords: serum creatinine, RST vacutainer, plain vacutainer, TAT