Perbandingan kadar kalium pada serum dari tabung vakum clot activator, plasma dari tabung vakum litium heparin, serta plasma dari tabung vakum litium heparin dengan gel separator = Comparison of serum potassium level from vacuum clot activator tube plasma potassium level from vacuum heparin lithium tube and plasma potassium level from vacuum heparin lithium tube with gel separator

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Abstrak

ABSTRAK
 Kalium merupakan kation intraseluler utama dalam tubuh yang penting untuk kelangsungan fungsi sel terutama menjaga rangsang elektrik jantung dan otot. Perubahan kadar kalium dalam darah sangat mempengaruhi kerja otot jantung dan fungsi sel sehingga diperlukan pemeriksaan kadar kalium yang tepat dan akurat agar terapi dan monitoring pasien tepat. Hasil pemeriksaan kalium sangat dipengaruhi oleh faktor pra-analitik. Spesimen yang direkomendasikan untuk pemeriksaan kalium adalah plasma heparin. Penelitian ini ingin melihat perbedaan kadar kalium yang diperiksa menggunakan spesimen berupa serum dari tabung vakum berisi clot activator tabung II , plasma dari tabung vakum berisi litium heparin tabung III , dan plasma dari tabung vakum berisi litium heparin dengan gel separator tabung IV . Penelitian ini juga ingin mengetahui perbedaan kadar kalium yang diperiksa menggunakan spesimen dari tabung berisi clot activator pada pengambilan darah pertama tabung I dan kedua tabung II . Desain penelitian adalah potong lintang dengan subjek penelitian 80 orang. Perbedaan kadar kalium yang bermakna statistik terdapat antara tabung II dan III p=0.001 , serta antara tabung II dan IV p=0.01 . Persentase perbedaan rerata dengan standar kadar kalium serum, antara tabung II dan III adalah 6.8, dan tabung II dan IV adalah 7.7, sedangkan terhadap standar kadar kalium plasma litium heparin yaitu 7.3 dan 8.3. Angka tersebut melebihi batas desirable bias 1.81 , yang berarti ada kemaknaan klinis pada perbedaan kadar kalium antara tabung II dan III serta tabung II dan IV. Hasil uji t-berpasangan pada tabung I dan II didapatkan perbedaan kadar kalium yang bermakna secara statistik ABSTRACT Potassium is a the most intracellular cation in the body that essential for the continuity of cell function, especially keeping the electrically stimulated heart and muscle. Changes in blood potassium levels greatly affect the work of the heart muscle and cell function so it is necessary to check the exact potassium levels and accurate for proper patient therapy and monitoring. Results of potassium assay is strongly influenced by pre analytic factors. Recommended specimen for potassium assay is plasma heparin. Aim this study wanted to see differences in potassium levels examined using serum specimens from vacuum tubes containing clot activators tube II , plasma specimens from vacuum tubes containing lithium heparin tube III , and plasma specimens from a vacuum tube containing lithium heparin with a separator gel tube IV . The study also wanted to know the difference in potassium levels examined using specimens from tubes containing clot activators on first blood collection tube I and second tube II . The study design was cross sectional with 80 subjects. The difference in potassium levels was statistically significant between tubes II and III p 0.001 , and between tubes II and IV p 0.01 . Mean percentage difference with standard serum potassium level, between tubes II and III was 6.8, and tubes II and IV were 7.7, whereas to the heparin lithium plasma potassium level of 7.3 and 8.3. This figure exceeds the desirable limit of bias 1.81 , which means there is clinical significance on the difference

in potassium levels between tubes II and III and tubes II and IV. The result of paired t test on tube I and II showed that the difference of potassium content was statistically significant p