

## ABSTRAK

**Latar Belakang:** Preparasi dalam pemisahan serum dari bekuan darah untuk pemeriksaan kadar protein total harus dilakukan dengan benar, karena serum yang diperoleh dari darah yang sudah didiamkan terlalu lama cenderung mengalami lisis sehingga dapat menyebabkan pelepasan hemoglobin dan protein seluler lain ke dalam serum. Terdapatnya sisa fibrinogen, faktor koagulasi dan protein seluler lain yang tidak termasuk protein serum dapat meningkatkan kadar protein total karena dapat ikut bereaksi dengan reagen protein total.

**Tujuan Penelitian:** Mengetahui perbedaan kadar protein total pada sampel darah yang didiamkan 30 menit dan 120 menit sebelum disentrifus

**Metode Penelitian:** Jenis penelitian yang digunakan adalah observasional analitik dengan desain penelitian *cross sectional*. Sampel penelitian berasal dari 20 mahasiswa Analis Kesehatan Poltekkes Kemenkes Yogyakarta. Pengambilan darah menggunakan 2 buah tabung vakum tutup merah. Tabung vakum pertama didiamkan selama 30 menit dan tabung vakum kedua didiamkan selama 120 menit kemudian disentrifus. Data primer yang diperoleh kemudian dianalisis secara deskriptif dan statistik.

**Hasil Penelitian:** Hasil penelitian menunjukkan bahwa tidak ada perbedaan yang signifikan antara kadar protein total pada sampel darah yang didiamkan 30 menit dan 120 menit sebelum disentrifus. Rata-rata kadar protein total pada sampel darah yang didiamkan 30 menit sebelum disentrifus sebesar 7,78 g/dL, sedangkan pada darah yang didiamkan 120 menit sebelum disentrifus sebesar 8,09 g/dL. Selisih rerata kadar protein total pada sampel darah yang didiamkan 30 menit dan 120 menit sebelum disentrifus adalah 0,31 g/dL. Nilai selisih rerata kadar protein total pada sampel darah yang didiamkan 30 menit dan 120 menit menunjukkan tidak berbeda secara signifikan ( $p=0,05$ ).

**Kesimpulan:** tidak ada perbedaan yang signifikan antara kadar protein total pada sampel darah yang didiamkan 30 menit dan 120 menit sebelum disentrifus

**Kata Kunci:** Kadar protein total, sentrifus, pembuatan serum

## ABSTRACT

**Background:** Preparations in the separation of serum from blood clots for the examination of total protein levels must be carried out properly, because serum obtained from blood that has been left for too long tends to lyse so that it can cause the release of hemoglobin and other cellular proteins into the serum. The presence of residual fibrinogen, coagulation factors and other cellular proteins that are not included in serum proteins can increase total protein levels because they can react with total protein reagents.

**Research Purpose :** Knowing the difference in total protein levels in blood samples that were allowed to stand for 30 minutes and 120 minutes before being centrifuged

**Research Methodology :** This type of research is analytic observational with cross sectional research design. The research sample came from 20 students of Health Analyst Poltekkes Kemenkes Yogyakarta. Blood draw using 2 pieces of red closed vacuum tubes. The first vacuum tube was left to stand for 30 minutes and the second vacuum tube was left to stand for 120 minutes then centrifuged. The primary data obtained were then analyzed descriptively and statistically.

**Research Result:** The results showed that there was no significant difference between the total protein levels in blood samples that were left for 30 minutes and 120 minutes before being centrifuged. The average total protein content in blood samples that were left to stand for 30 minutes before being centrifuged was 7.78 g/dL, while in blood that was allowed to stand 120 minutes before being centrifuged was 8.09 g / dL. The difference in mean total protein levels in the blood samples that were left to stand for 30 minutes and 120 minutes before being centrifuged was 0.31 g / dL. The average difference in total protein levels in blood samples that were allowed to stand for 30 minutes and 120 minutes before being centrifuged was 0.31 g/dL. The difference in the mean value of total protein levels in blood samples that were allowed to stand for 30 minutes and 120 minutes showed no significant difference ( $p=0.05$ ).

**Conclusion:** There was no significant difference between the total protein levels in blood samples that were left for 30 minutes and 120 minutes before centrifuge

**Keywords:** Total protein, centrifuge, serum preparation