

## **DIFFERENCE OF CITRATED BLOOD VOLUME OF 3.2% ON VALUE OF PT(PROTHOMBINETIME)**

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### **ABSTRACT**

Hemostasis testing, especially prothrombin time, is used to test for clotting factors on the extrinsic pathway and joint pathway. Blood samples for the examination of thrombin time were collected in a 3.2% vacutainer Na citrate tube with a ratio of 9: 1. Improper comparisons cause PT results to extend. Dilute blood due to excessive citrate causes low platelet counts, so the freezing process becomes slow so that the results extend. The aim of the study was to determine the difference of 3.2% citric blood volume against the prothrombin time value. This type of research is analytic while experimental research methods. The study sample consisted of 8 blood samples with different treatment of citric blood volume, namely 9: 1 (100%), 8: 1 (90%), and 7: 1 (80%). All three are checked using an coagulation autoanalyser tool. The results of the study at a ratio of 9: 1 (100%) obtained a minimum of 8 seconds maximum of 10.80 seconds with a mean of 9.63 seconds, a ratio of 8: 1 (90%) obtained a minimum of 9.30 seconds maximum of 11.60 seconds averaging 10, 40 seconds, a ratio of 7: 1 (80%) minimum of 10.40 seconds a maximum of 12.30 seconds averaging 11.26 seconds. Statistical calculations with ONE WAY ANOVA obtained results of significant differences. The smaller the ratio of blood and Na Citrate, the protombin time will be longer.

Keywords: Combined Time, Citric blood volume

## PERBEDAAN VOLUME DARAH SITRAT 3,2% TERHADAP NILAI PT (PROTHOMBINE TIME)

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### ABSTRAK

Pemeriksaan hemostasis khususnya *Protrombin Time* digunakan untuk menguji adanya gangguan faktor pembekuan darah pada jalur ekstrinsik dan jalur bersama. Sampel darah untuk pemeriksaan *Protombin Time* ditampung dalam tabung vacutainer Na Sitrat 3,2% dengan perbandingan 9:1. Perbandingan yang tidak tepat menyebabkan hasil PT memanjang. Darah yang encer karena sitrat berlebih menyebabkan jumlah trombosit rendah, maka proses pembekuan menjadi lambat sehingga hasil memanjang. Tujuan penelitian untuk mengetahui perbedaan volume darah sitrat 3,2% terhadap nilai *protombin time*. Jenis penelitian merupakan analitik sedangkan metode penelitian eksperimen. Sampel penelitian sebanyak 8 sampel darah dengan perlakuan volume darah sitrat yang berbeda yaitu 9:1 (100%), 8:1 (90 %), dan 7:1(80%). Ketiganya diperiksa menggunakan alat *coagulation autoanalyser*. Hasil penelitian pada perbandingan 9:1(100%) diperoleh hasil minimal 8 detik maksimal 10,80 detik rerata 9,63 detik, perbandingan 8:1(90%) diperoleh hasil minimal 9,30 detik maksimal 11,60 detik rerata 10,40 detik, perbandingan 7:1 (80%) minimal 10,40 detik maksimal 12,30 detik rerata 11,26 detik. Hasil uji ONE WAY ANOVA diperoleh nilai  $p=0,02$  sehingga dapat disimpulkan terdapat perbedaan volume darah sitrat 3,2% terhadap nilai PT.

Kata Kunci : *Protombin Time*, Volume darah sitrat