

ABSTRACT

Suryani S, NIM: 1534047, 2019. Differences of *Alanine Aminotransferase* (ALT) Levels in Serum from Blood that Centrifuged at 3000 *rpm* for 5 Minutes and 4400 *rpm* for 3 Minutes. Essay. DIV Health Analyst Study Program, Musi Charitas Catholic University, Palembang.

Background : Laboratory tests for liver and heart are emergency, so the examination must be carried out quickly including ALT examination. One way is by reducing the time of centrifugation without reducing the quality of serum. Reducing the time of centrifugation to 3 minutes at 4400 *rpm* is expected to provide the same results by centrifuging for 5 minutes at 3000 *rpm*. So that, the duration of ALT examination can be faster, reduces *Turnaround Time* (TAT) or patient waiting time, and saves electrical energy which can reduce the *variable cost*.

Method : This research was a pre-experimental study with Static Group Comparison research design. The examination used IFCC without pyridoxal method. The subjects of research were 22 people. Samples were serum of blood that were frozen for 30 minutes then centrifuged at 3000 *rpm* for 5 minutes and 4400 *rpm* for 3 minutes. Samples were examined using A15 biosystem instrument. Data were analyzed by *Wilcoxon test*.

Result : The results showed mean value of ALT centrifuged at 3000 *rpm* for 5 minutes was 16,32 U/L and 4400 *rpm* for 3 minutes was 16,50 U/L. Based on *Wilcoxon test*, there was no difference in ALT level from centrifuged blood samples at 3000 *rpm* for 5 minutes and 4400 *rpm* for 3 minutes, *p-value* (sig) = 0.676 with a significant level ($\alpha = 0.05$) then *p-value* (sig. 2 tailed) > 0.025.

Conclusion : There was no difference in ALT level in serum from blood that was centrifuged at 3000 *rpm* for 5 minutes and 4400 *rpm* for 3 minutes.

Keywords : ALT, centrifugation, time