

## ABSTRAK

Banyak instalasi laboratorium khususnya Puskesmas yang belum melaksanakan pemantapan mutu secara periodik dikarenakan besarnya biaya yang dikeluarkan untuk pembelian material kontrol. Penelitian ini bertujuan untuk mengetahui perbedaan nilai *Variant Index Score* (VIS) serum liofilisat *homemade* dengan komersial terhadap implementasi pemantapan mutu laboratorium khususnya parameter SGOT, SGPT, kreatinin, dan BUN.

Penelitian dilakukan di Laboratorium Klinik Poltekkes Surabaya, laboratorium Puskesmas Surabaya, laboratorium rujukan, serta Fakultas Teknobiologi Ubaya. Penelitian dilaksanakan pada Januari-Mei 2023 menggunakan jenis penelitian deskriptif komparatif dengan pendekatan kuantitatif. Populasi penelitian ini adalah laboratorium Puskesmas dengan sampel penelitian 11 laboratorium Puskesmas yang dipilih dengan teknik *Purposive Random Sampling*. Bahan uji yang digunakan berupa serum liofilisat *homemade*, dengan variabel penelitian nilai VIS serum liofilisat *homemade* dan komersial parameter SGOT, SGPT, kreatinin, dan BUN.

Hasil analisis uji T *Independent* dan *Mann Withney* menunjukkan perbandingan nilai VIS serum *homemade* dan komersial berdasarkan nilai target peserta parameter SGOT, SGPT, kreatinin, dan BUN diperoleh nilai signifikansi sebesar 0,759; 0,983; 0,160; dan 0,994, serta berdasarkan nilai target true value parameter SGOT SGPT, kreatinin, dan BUN diperoleh nilai signifikansi sebesar 0,70; 0,973; 0,224; dan 0,616. Dapat disimpulkan bahwa tidak terdapat perbedaan yang signifikan pada nilai VIS antara serum liofilisat *homemade* dan komersial, sehingga dapat dinyatakan bahwa serum liofilisat *homemade* bisa dijadikan opsi bahan kontrol pengganti serum komersial untuk pelaksanaan pemantapan mutu laboratorium.

**Kata Kunci :** VIS, SGOT, SGPT, Kreatinin, BUN

## **ABSTRACT**

*There are still many laboratory installations, especially the Puskesmas, which have not carried out periodic quality assurance due to the high costs incurred to purchase control materials. This study aims to determine differences in the Variant Index Score (VIS) values of homemade and commercial serum lyophilized on the implementation of laboratory quality assurance, especially the SGOT, SGPT, creatinine, and BUN parameters.*

*The research was conducted at the Surabaya Poltekkes Clinical Laboratory, the Surabaya Health Center laboratory, reference laboratories, and Ubaya Faculty of Biotechnology. The research started in January-May 2023 using a comparative descriptive research with a quantitative. The population of this study was the Puskesmas laboratory with a sample of 11 Puskesmas laboratories selected by purposive random sampling technique. The test material used is homemade lyophilized serum, with the variables VIS of homemade and commercial serum lyophilized.*

*The results of the analysis independent T and Mann Withney test showed that the comparison of VIS values of homemade and commercial serum based on the participant's target values for the parameters SGOT, SGPT, creatinine, and BUN obtained a significance value of 0.759; 0,983; 0.160; and 0.994, and based on the true value target parameters SGOT SGPT, creatinine, and BUN a significance value of 0.70; 0.973; 0.224; and 0.616. It can be concluded that there is no significant difference in the VIS between homemade and commercial serum lyophilized, so that it be stated that homemade lyophilized serum can be used as an alternative control material for commercial serum for laboratory quality assurance.*

**Keywords :** *VIS, SGOT, SGPT, Creatinin, BUN*