

ABSTRAK

Pelayanan kesehatan diperlukan untuk menunjang upaya peningkatan kesehatan, pencegahan serta pengobatan penyakit, dan pemulihan kesehatan sebagai bagian dari integral pelayanan laboratorium., oleh sebab itu hasil pemeriksaan laboratorium harus tetap terjamin mutunya, maka laboratorium klinik memerlukan sistem kontrol kualitas (QC) sebagai komponen penting. Serum kontrol merupakan bagian pemantapan mutu internal dan eksternal. Serum bentuk liofilisat *homemade* merupakan alternatif serum komersial.

Tujuan penelitian ini adalah untuk mengetahui stabilitas serum bentuk liofilisat *homemade* sebagai bahan kontrol kualitas terhadap kadar AST dan ALT yang diperiksa setiap minggu selama 8 minggu pada suhu 2-8°C yang dilaksanakan pada bulan Maret-Mei 2022. Jenis penelitian ini adalah eksperimen yang dilakukan di Laboratorium Pramita dan Laboratorium Kimia Klinik Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Surabaya dengan bahan uji serum bentuk liofilisat menggunakan fotometer.

Hasil penelitian dilakukan analisa data menggunakan grafik *Levey-Jennings* dan uji regresi. Dapat disimpulkan kadar AST dan ALT terhadap serum bentuk liofilisat *homemade* yang diperiksa satu kali setiap minggu selama 8 minggu terkontrol stabil dalam batas nilai rata-rata $\pm 2SD$ dan lama penyimpanan berpengaruh 55,17% pada kadar AST dan 1,89% pada kadar ALT.

Kata kunci : Serum bentuk liofilisat *homemade*, kadar AST, kadar ALT

ABSTRACT

Health services are needed to support efforts to improve health, prevent and treat disease, and restore health as an integral part of laboratory services. Therefore, the quality of laboratory examination results must be guaranteed, so clinical laboratories require a quality control system (QC) as an important component. Serum control is part of internal and external quality assurance. Homemade lyophilized serum is an alternative to commercial serum.

The purpose of this study was to determine the stability of homemade lyophilized serum as a quality control material for AST and ALT levels which were checked every week for 8 weeks at a temperature of 2-8°C which was carried out in March-May 2022. This type of research is an experiment conducted at the Pramita Laboratory and Clinical Chemistry Laboratory, Department of Medical Laboratory Technology, Poltekkes, Ministry of Health, Surabaya, using a lyophilized serum assay using a photometer.

The results of the study were data analysis using Levey-Jennings charts and regression tests. It can be concluded that the levels of AST and ALT on homemade lyophilized serum which were checked once a week for 8 weeks were controlled stable within the limits of the average value of $\pm 2SD$ and storage time had an effect of 55.17% on AST levels and 1.89% on ALT levels.

Keywords: Homemade lyophilized serum, AST levels, ALT . levels