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ANALYSIS OF TRIGLYCERIDE TEST CONTROL RESULTS USING THE SIGMA MATRIX METHOD IN THE LABORATORY OF HEART HOSPITAL DIAGRAM

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Abstract

Quality control in triglyceride tests is carried out to improve the quality of test results and prevent irregularities, so that the accuracy and accuracy of test results can be guaranteed and trusted. Accuracy and accuracy are shown by the coefficient of variation and bias. Sigma matrix is a method to measure the performance of a process by analyzing the root of the problem and showing the number of error factors that occur. This study aims to analyze the results of triglyceride examination control using the sigma matrix method at the Diagram Heart Hospital Laboratory. The research methodology in this study is quantitative descriptive with a cross sectional design using a sample of triglyceride quality control data for the period March to May 2023 with 2 levels of control, namely normal and pathogenic. Sigma matrix analysis involves coefficient of variation (CV), bias and Total Allowable Error (TEa). In this study, the lowest sigma value was in April 2023 level 1 of 4.95 in the good category and the highest sigma value was in March level 1 of 11.73 which was included in the worldclass category, so there was no need to do QGI. The triglyceride control value in this study did not show any deviation at the level of the sigma and QGI matrix, so that the precision and accuracy of the triglyceride test results can be guaranteed in quality.

Keywords : Bias, CV, Quality control, Sigma matrix, QGI.

1. Introduction

Strengthening laboratory quality is an activity that ensures the accuracy and accuracy of laboratory test results. There are two activities to strengthen laboratory quality, namely External Quality Stabilization (PME) and Internal Quality Stabilization (PMI). Internal Quality Stabilization (PMI) is carried out in each part of each laboratory installation to implement preventive and supervisory measures against irregularities.*Error* continuously, in order to get the correct examination results. External Quality Stabilization (PME) is an activity organized by the outside of the laboratory concerned and is carried out periodically to assess and evaluate laboratories in certain areas of inspection (Tuntun Siregar et al., 2018). *Good Laboratory Practice* (GLP) is a guideline that establishes requirements and criteria to ensure quality with Standard Operating Procedures (SOPs), personnel training, and how to work in a laboratory (Annisa, 2021).

Quality Control (QC) is a test evaluation process in procedures that aims to ensure the proper functioning of the quality management system, ensure laboratory inspection results, and minimize irregularities.*Error* and its sources (D, 2018). Precision (precision),