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Effective use of Controls in the Clinical Laboratory: Analysis of Traditional and new Algorithms.

The primary means of determining the quality of testing in the clinical laboratory is the analysis of control results. Traditional Quality Control (QC) uses a set of pass/fail rules applied to a limited number of control results. This presentation provides a mathematical analysis of the performance of these rules, highlighting their suitability for use in an automated laboratory, and for meeting modern quality goals. As a result of this analysis, new algorithms and techniques for the analysis of control results have been developed and tested. These new algorithms will be presented. (Received September 03, 2008)