
P162. EVALUATING MEASUREMENT UNCERTAINTY OF PHENYTOIN

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Measurement uncertainty is a quality parameter for the accuracy of the measurement results in clinical testing. It shows what extent the result represents the real value. Measurement uncertainty is very important for the clinician to provide medical decision, diagnosis and treatment. The purpose of this study is to calculate measurement uncertainty of phenytoin by using internal quality control datas, inter laboratory comparison results and calibrator uncertainty value to compare it with CLIA total error % (TEa%) value.

Between march 2015 and March 2016, the internal quality control datas were screened. The estimation of phenytoin measurement was calculated according to ISO21748 guide. Inter laboratory comparison and calibrator uncertainty values were used to estimate bias. Phenytoin levels were determined using the immunoturbidimetric method on the Roche Cobas Integra 800 analyzer.

TEa% values for phenytoin was 19,47. This value was not higher than CLIA (%25).

Discussion: Phenytoin is primary antiepileptic agent in all types of epilepsy except absence epilepsy Dosage adjustment is important for assessment treatment efficacy in therapeutic range and also protection from the negative health effects in toxic levels. Therefore, medical laboratories should produce analytically reliable results for the correct interpretation and use of results.

Laboratories should give results lower than TEa% limits for phenytoin.

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