Performance Evaluation of a New Ready-to-use Liquid Triglycerides Assay on the High-throughput ADVIA Chemistry Systems

Datta P, Dai J. Siemens Healthcare Diagnostics Inc., Newark, D.U.S.

Abstract

Background

Measurement of serum triglycerides is important to determine/assess values of a patient, due to the association of hypertriglyceridemia with the development and progression of various pathologic processes, such as nuclear atherosclerosis. The capacity of the polyunsaturated fatty acids to form peroxides, leading to advanced oxidation products, is directly proportional to the triglycerides' concentration. This oxidative stress has been linked to the development and progression of a variety of clinical conditions, such as cardiovascular diseases.

Methods

In the ADVIA Chemistry TRIG_2 and TRIG_c assays, samples were diluted and reacted with a single reagent (h-TRIG, Siemens). The samples were incubated at room temperature for 10 minutes, followed by a water wash and a 20-minute reaction in 30°C. The results were automatically calculated during the reaction on the respective chemistry systems. The system has been compared to the Dimension® XPAND system, with data collected for performance evaluation in this study including precision, interference, linearity, and correlation with a set of expected values. The results were compared with expected values on the ADVIA Chemistry systems.

Results

The results obtained on the ADVIA Chemistry systems were in general comparable to the Dimension® XPAND system. Similar differences were observed with the ADVIA Chemistry TRIG_c assay compared with the Dimension® XPAND system.

Conclusion

The results obtained on the ADVIA Chemistry systems were in general comparable to the Dimension® XPAND system. Similar differences were observed with the ADVIA Chemistry TRIG_c assay compared with the Dimension® XPAND system.


data and tables

Table 1: Performance summary for the ADVIA Chemistry TRIG_2 assay on the ADVIA Chemistry systems.

Table 2: Performance summary for the ADVIA Chemistry TRIG_c assay on the ADVIA Chemistry systems.

Table 3: Analytic summary for the ADVIA Chemistry TRIG_2 assay on the ADVIA Chemistry systems.

Table 4: Analytic summary for the ADVIA Chemistry TRIG_c assay on the ADVIA Chemistry systems.

Table 5: Analytic summary for the ADVIA Chemistry TRIG_2 assay on the ADVIA Chemistry systems.

Table 6: Analytic summary for the ADVIA Chemistry TRIG_c assay on the ADVIA Chemistry systems.

Table 7: Analytic summary for the ADVIA Chemistry TRIG_2 assay on the ADVIA Chemistry systems.

Table 8: Analytic summary for the ADVIA Chemistry TRIG_c assay on the ADVIA Chemistry systems.