Low-density lipoprotein cholesterol (LDL-C) is considered a critical risk factor for developing coronary heart disease (CHD) and cardiovascular heart disease (CVD). LDL particles are heterogeneous with respect to size and density of lipid composition. The small dense LDL (sd LDL) are atherogenic with higher levels in patients with CAD/CHD than in controls with a clear relationship between sd LDL levels and disease severity. The predominance of sd LDL-C as a strong and independent predictor of CAD/CHD has been reported. Current methods for the measurement of LDL particle size are too laborious for general clinical use.

We report the analytical evaluation of a rapid direct method for the measurement of sd LDL in serum/plasma without sample pre-treatment, this is of value for applications in clinical settings.

• Data indicate optimal analytical performance of the enzymatic assay for in vitro determination of small dense LDL in serum/ plasma samples on RX series analysers.
• Detection limit: 1.0 mg/dL, Linearity: 100 mg/dL, reproducibility: within-run precision %CV <3% for different concentration levels.
• No requirement for any off-line sample pre-treatment steps: quicker and more user friendly method.
• Excellent agreement with other commercially available system.
• Liquid assay reagents ready to use. This is of value as analytical tool for clinical settings.

References