

Pathology and Laboratory Medicine Memorandum

To: Central Zone Healthcare Providers and Health Service Directors

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Date: December 8, 2022

Subject: Changes to LDL calculation in Central Zone

Effective December 18, 2022, LDL-C will be reported in the Central Zone (CZ) as calculated by the NIH LDL-equation instead of the Friedewald LDL-C equation. See link for the equations:

[Practice Update from the CSCC Reference Interval Harmonization Working Group: Recommendations on LDL-C Calculation & Reporting | CSCC | SCCC \(cscdev.ca\)](#)

The NIH equation, developed in 2020 and validated in a Canadian population, has been recently recommended by the Canadian Cardiovascular Society for LDL-C calculation. The NIH equation provides a more accurate estimation than the Friedewald equation for LDL-C in the following circumstances:

- In the non-fasting state, which is now the widely accepted option for lipid testing
- When triglycerides are elevated (between 4.61 and 9.0 mmol/L) which is becoming more common with the increased prevalence of dyslipidemia. When Triglycerides are ≥ 9.0 and ≤ 14.61 mmol/L, direct LDL-C testing will be reflexed. This is a change from the previous 4.61 mmol/L threshold.
- When LDL-C is low (between 0.5 - 1.5 mmol/L), which is seen with current more aggressive LDL-C targets and therapies. The lower limit of reporting for LDL-C can now be reduced to 0.5mmol/L, which allows better monitoring of these patients.

For questions, please contact Dr Amy. Lou at 902-473- 1528 or Amy.Lou@nshealth.ca