ALBERTA PRECISION LABORATORIES
Leaders in Laboratory Medicine

Laboratory Bulletin

DATE:	18 September 2023
TO:	All Healthcare Professionals and Providers
FROM:	Clinical Biochemistry, Alberta Precision Laboratories (APL)
RE:	**Change in Lipoprotein (a) [Lp(a)] Reporting Units to nmol/L**

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Key Message

- Effective September 27, 2023, reporting units for lipoprotein (a) [Lp(a)] will be updated provincially to **nmol/L** to align with the recent recommendations by Canadian Society of Clinical Chemists[1].

Why this is important

- Lp(a) is a causal risk factor for cardiovascular disease and is used to quantify apolipoprotein (a) [apo (a)].
- APL has been reporting Lp(a) results in mass units (g/L), which can lead to inaccurate "mass" results due to variation in apo(a) size.
- The genetic risk of LPA gene variants has been shown to be fully captured by measuring Lp(a) in nmo/L.
- The Lp(a) methodology allowing for nmol/L reporting is immunoturbidimetric assay on Roche analyzers. This will allow calibration traceability to the WHO/IFCC international Reference Material for Lp(a), SRM-2B reference material as recommended by Canadian Society of Clinical Chemists harmonized clinical laboratory lipid reporting guidelines.
- Lp(a) concentrations should not be converted from g/L to nmol/L and vice versa.

Table 1: Summary of changes in Lp(a) reporting

	Current	**New**
Methodology	Roche immunoturbidimetric and Siemens nephelometric	Roche immunoturbidimetric
Reporting units	g/L	nmol/L
Reference intervals	< 0.31	< 100

Action Required

- Be aware of the new reporting units in nmol/L for Lp(a).
- Refer to the 2021 Canadian Cardiovascular Society Lipid guidelines[2] for indications and interpretation of Lp(a).
- Refer to the APL test directory for test information on Lp(a)

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References:

1) White-Al Habeeb, N, et al., Can J Cardio 38 (2022); 1180-1188
2) Pearson GJ, et al., Can J Cardio 37 (2021); 1129-1150