

DATE:	14 September 2026
TO:	All Zones: All Healthcare Professionals and Providers
FROM:	Clinical Biochemistry, Alberta Precision Laboratories (APL)
RE:	Update to Pediatric Lipid Panel and Individual Lipid Test Reporting

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- Effective **September 22, 2026**, pediatric (<18 years) lipid panel and individual lipid test reporting will be updated to align with recent recommendations by the Canadian Society of Clinical Chemists (CSCC)¹.

Background

- The CSCC recently published recommendations for lipid reporting in alignment with the 2022 Canadian Cardiovascular Society/Canadian Pediatric Cardiology Association (CCS/CPCA) guidelines for the management of Dyslipidemia in Children and Adolescents,² to promote harmonization across Canada.
- The new flagging limits (see Appendix A) for:
 - Non-HDL-C, LDL-C, HDL-C and Apolipoprotein B (ApoB) are based on decision thresholds for lipid screening in the primary prevention setting.
 - Total cholesterol and triglycerides will alert healthcare providers to assess dyslipidemia.
- The new reporting lab comments (see Appendix B) align with the 2022 CCS/CPCA guidelines² and CSCC recommendations for additional thresholds.
- LDL-C calculation was recently updated in Alberta to the new NIH LDL-C equation ([Lipid panel and individual lipid test reporting changes in adults and a new equation to calculate LDL-C in pediatrics and adults](#)).

How this will impact you

- Lipid flagging limits and laboratory comments will change for pediatric patients (<18 years).
 - There is no change to lipid reporting for patients ≥18 years.

Action Required

- Be aware of these lipid reporting changes, which are also reflected in the *Cardiovascular Disease Risk Assessment* test order.
- Refer to the 2022 Canadian Cardiovascular Society/Canadian Pediatric Cardiology Association (CCS/CPCA) guidelines for the management of Dyslipidemia in Children and Adolescents² and the CSCC lipid reporting recommendations¹ for more detailed information.

Questions/Concerns

- Edmonton Base lab Clinical Chemist Team, 825-394-1816, abl.clinicalchemists@aplabs.ca
- Dr. Albert Tsui, Clinical Biochemist, North Sector, 587-782-2674, albert.tsui@aplabs.ca,
- Dr. Samantha Logan, Clinical Biochemist, Calgary Hub Lab, 403-770-3303, samantha.logan@aplabs.ca
- Dr. Allison Venner, Clinical Biochemist, South Sector, 403-770-3566, allison.venner@aplabs.ca

Approved by

- Dr. Carolyn O'Hara, Chief Medical Laboratory Officer, APL

References

- 1.) Higgins V, et al., Can J Cardio 40 (2024); 1183-1197
- 2.) Khoury M, et al., Can J Cardio 38 (2022); 1168-1179



Appendices

A. Current and New Lipid Flagging Limits for Pediatrics (<18 years old)

Lipid Test	Current	New
Total cholesterol	2.70 – 5.89 mmol/L	<5.20 mmol/L
Triglycerides (0 to <10 years)	<1.50 mmol/L	<2.20 mmol/L
Triglycerides (10 to <18 years)	<1.50 mmol/L	<2.40 mmol/L
Non-HDL-C	N/A	<3.75 mmol/L
LDL-Cholesterol Calculated	N/A	<3.40 mmol/L
HDL-Cholesterol	N/A	≥1.00 mmol/L
Apolipoprotein B100	<0.90 g/L	<0.80 g/L
Lipoprotein A (Lp(a))	<100 nmol/L	No reference interval

B. New Pediatric Lipid Reporting Laboratory Comments (<18 years old)

Lipid test	Always comment	Conditional Comments
Individual Test Order Reporting		
Total cholesterol	Acceptable: <4.40 mmol/L Borderline: 4.40 to <5.20 mmol/L Abnormal: ≥5.20 mmol/L	<i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."
Triglycerides (0 to <10 years)	Non-fasting thresholds: Acceptable: <1.50 mmol/L Borderline: 1.50 to <2.20 mmol/L Abnormal: ≥2.20 mmol/L Fasting thresholds: Acceptable: <1.20 mmol/L Borderline: 1.20 to <1.80 mmol/L Abnormal: 1.80 mmol/L *Note: Fasting thresholds assume triglycerides are ~20% lower than in the non-fasting state; however, individual reductions may exceed 20%.	<i>If triglycerides >5.50 mmol/L:</i> "As per 2022 CCS/CPCA guidelines, triglycerides > 5.50 mmol/L is consistent with severe hypertriglyceridemia. Referral to specialist may be warranted, if clinically indicated." <i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."
Triglycerides (10 to <18 years)	Non-fasting thresholds: Acceptable: <1.50 mmol/L Borderline: 1.50 to <2.40 mmol/L Abnormal: ≥2.40 mmol/L Fasting thresholds: Acceptable: <1.20 mmol/L Borderline: 1.20 to <1.90 mmol/L Abnormal: 1.90 mmol/L *Note: Fasting thresholds assume triglycerides are ~20% lower than in the non-fasting state; however, individual reductions may range from 10–20%.	<i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."
Apolipoprotein B100	Desired: <0.65 g/L Borderline: 0.65 to 0.80 g/L Abnormal: ≥ 0.80 g/L ApoB was measured using the [Siemens Nephelometry/Optilite] method.	<i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."



Lipoprotein A (Lp(a))	Lp(a) was measured using the Roche method. Lp(a) >100 nmol/L might predispose to premature ASCVD in adulthood. Lp(a) increases throughout childhood and adolescence but is not known to change during adulthood.	<i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."
Lipid Panel Order Reporting (including within the Cardiovascular Disease Risk Assessment Panel)		
Total cholesterol	Acceptable: <4.40 mmol/L Borderline: 4.40 to <5.20 mmol/L Abnormal: ≥5.20 mmol/L	<i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."
Triglycerides (0 to <10 years)	Non-fasting thresholds: Acceptable: <1.50 mmol/L Borderline: 1.50 to <2.20 mmol/L Abnormal: ≥2.20 mmol/L Fasting thresholds: Acceptable: <1.20 mmol/L Borderline: 1.20 to <1.80 mmol/L Abnormal: 1.80 mmol/L *Note: Fasting thresholds assume triglycerides are ~20% lower than in the non-fasting state; however, individual reductions may exceed 20%.	<i>If triglycerides >5.50 mmol/L:</i> "As per 2022 CCS/CPCA guidelines, triglycerides > 5.50 mmol/L is consistent with severe hypertriglyceridemia. Referral to specialist may be warranted, if clinically indicated."
Triglycerides (10 to <18 years)	Non-fasting thresholds: Acceptable: <1.50 mmol/L Borderline: 1.50 to <2.40 mmol/L Abnormal: ≥2.40 mmol/L Fasting thresholds: Acceptable: <1.20 mmol/L Borderline: 1.20 to <1.90 mmol/L Abnormal: 1.90 mmol/L *Note: Fasting thresholds assume triglycerides are ~20% lower than in the non-fasting state; however, individual reductions may range from 10–20%.	<i>If patient's age is <24 months:</i> "The thresholds are only considered valid in patients 2 years of age and older, when screening for dyslipidemia is recommended."
Non-HDL-Cholesterol	Acceptable: <3.10 mmol/L Borderline: 3.10 to <3.75 mmol/L Abnormal: ≥3.75 mmol/L	<i>If non-HDL-C ≥ 3.75 mmol/L:</i> "If non-HDL-C ≥ 3.75 mmol/L when non-fasting, repeat in a fasting state."
LDL-Cholesterol Calculated	Acceptable: <2.80 mmol/L Borderline: 2.80 to <3.40 mmol/L Abnormal: ≥ 3.40 mmol/L LDL-C was calculated using the NIH equation. Refer to 2022 CCS/CPCA guidelines for additional LDL-C thresholds for treatment initiation and monitoring	<i>If LDL-C ≥ 4.00 mmol/L:</i> "As per 2018 CCS position statement, LDL-C ≥ 4.00 mmol/L may be associated with a genetic dyslipidemia. Referral to specialist may be warranted, if clinically indicated." <i>Using NIH Equation, If triglycerides > 9.04 mmol/L:</i> "LDL-C cannot be calculated. Triglycerides exceed 9.04 mmol/L. Recollect in a fasting state."



HDL-Cholesterol	Acceptable: >1.20 mmol/L Borderline: 1.00-1.20 mmol/L Abnormal: <1.00 mmol/L	<i>If HDL-C < 0.30 mmol/L:</i> "As per 2022 CCS/CPCA guidelines, HDL-C < 0.30 mmol/L may be associated with a genetic dyslipidemia. Referral to specialist may be warranted, if clinically indicated.
-----------------	--	--