Lipids Point-of-Care Testing Clinical Tool

ONTARIO PHARMACISTS ASSOCIATION
Advocating Excellence in Practice and Care

Type of Interaction

Patient asks about the lipids POCT

I am glad you want to know more about the lipids POCT.

- A lipids test assesses the amount of lipids (i.e., fats) in your blood.[iv]
- High lipid levels in your blood can increase the risk of cardiovascular diseases such as a stroke or heart attack.[iv]
- Screening is important to help determine your risk for cardiovascular disease and to take appropriate action to decrease that risk as required.[iv]
- When on lipid-lowering medications, it is helpful to regularly have your lipid levels tested to monitor how effective your medication and lifestyle changes are at managing your condition and preventing cardiovascular disease.[iii]

Refer to box on Target Populations for more information on who should receive testing.

Pharmacist screens for eligible patients

TARGET POPULATIONS

Screening[i,ii]

Population	Testing Frequency
Men ≥40 years old Women ≥40 years old or postmenopausal (Individuals who are part of at-risk populations (e.g., Indigenous, South Asian) should be considered for screening at a younger age)	Standard lipid profile (TC, LDL-C, HDL-C, non-HDL-C*, TG) should be done as part of a regular CV risk assessment (FRS or CLEM) **every 5 years** for individuals 40-75 years of age or whenever a patient's expected risk status changes#
Patients at any age with certain conditions^ (refer to Table 1 of the CCS Dyslipidemia Guidelines for more information)	(nonfasting state recommended unless it is known that TG >4.5 mmol/L)

^ Conditions include: clinical ASCVD; evidence of preclinical ASCVD; abdominal aortic aneurysm; diabetes; arterial hypertension; currently a cigarette smoker; stigmata of dyslipidemia; tendinous xanthomas (including corneal arcus, xanthelasmas if <45 years old); family history of first degree relative with premature CVD (male <55 years old, female <65 years old); family history of dyslipidemia (including elevated Lp(a), especially ≥50 mg/dL or ≥100 nmol/L); CKD (eGFR ≤60 mL/min/1.73 m^2 or ACR ≥3 mg/mmol); obesity (BMI ≥30 kg/m^2); inflammatory diseases (e.g., rheumatoid arthritis, psoriatic arthritis, systemic lupus erythematous, inflammatory bowel disease, ankylosing spondylitis); HIV infection; erectile dysfunction; COPD; pregnancy-related complications (hypertensive disease of pregnancy, gestational diabetes, pre-term birth, stillbirth, low birthweight infant, placental abruption)

* When interpreting lipid levels for screening, especially if TG ≥1.5 mmol/L, non-HDL-C or ApoB levels are used preferentially over LDL-C. (non-HDL-C = TC – HDL-C)

\# Note: After a major medical event, 3 months is generally required for a stabilized and representative plasma lipid profile. However, in the case of acute coronary syndromes, regardless of the lipid profile, statin therapy is immediately required.

Management (Assessing Adherence and Response to Therapy)[iii]

Population	Testing Frequency
After statin initiation or dose adjustment	In 4-12 weeks (fasting state)
Monitoring of therapy	Every 3-12 months as needed (fasting state)

For more information and for guidance on special populations, e.g., pregnancy and children, refer to the 2021 Canadian Cardiovascular Society Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in Adults and the 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines.

***Note:** Prior to proceeding with the POCT, pharmacists are encouraged to review the patient's historical laboratory results via one of the provincial clinical viewers, where applicable.*

Are you interested in receiving a lipids POCT today/booking an appointment?

YES

Based on your profile, it appears that you may benefit from a lipids POCT. Would you like to know more about it?

NO

Patient Response

Yes, I would like to get it today/book an appointment. (Receptive)

I'm not really sure I need that. (Hesitant)

No, thank you. (Unreceptive)

Is there any more information I can give you to address your concerns?

YES → **Address any concerns**

NO → **No problem.** If you change your mind and decide you would like to get a POCT in the future or have any additional questions, please feel free to contact us.

POINTS FOR DISCUSSION

- Associated costs (refer to the OPA Point-of-Care Testing Suggested Fee Guide for more information)
  - Point-of-care testing is an uninsured service but may be covered by the patient's private plan (e.g., Health Spending Account)
  - Patient may be eligible to have this test completed and covered by OHIP at a public health laboratory with a requisition order from an authorized practitioner[v]
- Overview of the service (e.g., specimen collection, real-time testing, interpretation of results, provision of results, pharmacist consultation, etc.)

FREQUENTLY ASKED QUESTIONS

Q: What is a POCT?[vi]

A: A POCT is a type of test that is completed start to finish at the site of patient care (e.g., at the pharmacy) and does not require sending the sample to be tested at a laboratory. The results of the test are typically available within a few minutes, allowing the healthcare professional (e.g., pharmacist) to act immediately on the results and work with you to make informed changes or recommendations to your care plan as necessary.

Q: Why should I get a POCT at the pharmacy over a test done at a public health laboratory through my doctor?[vii]

A: Some of the advantages of point-of-care testing at the pharmacy compared to tests completed by public health laboratories are that less time is required, a smaller volume of blood is required (typically only a few drops) from a prick on the tip of one of the fingers, and there is immediate application of the test result, i.e., the pharmacist will interpret and discuss the results with you and provide any additional education, information, or adjustments to therapy as needed to help you reach your health goals without delay.

Q: Is point-of-care testing safe and effective?[viii]

A: Yes. Devices used for point-of-care testing in Ontario must be licensed for use by Health Canada. The licensing process includes a thorough evaluation of the safety, effectiveness, and quality of these testing devices. Furthermore, the safety and effectiveness continue to be monitored by Health Canada after approval. Your POCT at the pharmacy will be conducted by trained pharmacy professionals who have the knowledge and expertise to perform the test and interpret the results.

Q: How accurate is a lipids POCT?

A: The accuracy of a lipids POCT varies based on the device used. The pharmacist can provide you with more information about the accuracy of the specific device used at this pharmacy as compared to lab tests.

Patient Decision

Proceed with POCT today

Book an appointment

Refer to primary care provider/ No longer interested

Obtain informed consent and perform POCT

Pharmacist interprets the results and provides patient consultation

GENERAL TIPS[i,ii]

Management of Primary Prevention Patients *Without* a Statin-Indicated Condition

- Using the results from the lipids POCT, calculate the patient's FRS (*refer to the iCCS app available on the App Store or on Google Play*) to determine 10-year CV risk. (Note: For patients with a family history of premature CV disease, it is recommended to double the FRS).
- Refer to Figure 1 of the CCS Dyslipidemia Guidelines to determine the treatment approach.

Management of Patients *With* a Statin-Indicated Condition

- Refer to Figure 2 and Figure 3 of the CCS Dyslipidemia Guidelines to determine the treatment approach.
- May consider addition of ezetimibe and PCSK9 inhibitors to statin therapy for patients with ASCVD and LDL-C <1.8 mmol/L, especially for those at high risk of recurrent ASCVD events.

Other Tips

- Patients who have a TG level ≥10 mmol/L and/or history of TG-related pancreatitis or with severe hypercholesterolemia (LDL-C ≥95th percentile for age and sex) should be referred to their primary care provider.
- Treatment monitoring: If TG <1.5 mmol/L, use LDL-C, non-HDL-C or ApoB. If TG ≥1.5 mmol/L, use non-HDL-C or ApoB.

Refer to AT A GLANCE: 2021 CCS Guideline for the Management of Dyslipidemia in Adults for additional information.

EXAMPLES OF ADDITIONAL SERVICES THAT MAY BE OFFERED

- Medication review/MedsCheck Annual
- Follow-up medication review/MedsCheck Follow-up
- Pharmaceutical Opinion
- Prescription adaptation/renewal
- Adherence packaging (e.g., dosette, blister packing)

(Refer to the OPA Suggested Fee Guide for Uninsured Clinical and Professional Pharmacy Services for more information as required)

Document and notify patient's primary care provider

Schedule follow up as required

(Refer to box on Target Populations for testing frequencies)

PLEASE NOTE: Only information related to a standard lipid panel (TC, TG, HDL-C, LDL-C, non-HDL-C) are included in this resource in alignment with the scope of practice of pharmacists as per O. Reg. 202/94 under the *Pharmacy Act, 1991*.

ABBREVIATIONS:

ACR: albumin-to-creatinine ratio; **ApoB:** apolipoprotein B; **ASCVD:** atherosclerotic cardiovascular disease; **BMI:** body-mass index; **CCS:** Canadian Cardiovascular Society; **CKD:** chronic kidney disease; **CLEM:** Cardiovascular Life Expectancy Model; **COPD:** chronic obstructive pulmonary disease; **CV:** cardiovascular; **CVD:** cardiovascular disease; **eGFR:** estimated glomerular filtration rate; **FRS:** Framingham Risk Score; **HDL-C:** high-density lipoprotein cholesterol; **HIV:** human immunodeficiency virus; **LDL-C:** low-density lipoprotein cholesterol; **Lp(a):** lipoprotein(a); **OHIP:** Ontario Health Insurance Plan; **PCSK9:** proprotein convertase subtilisin/kexin type 9; **POCT:** point-of-care test; **TC:** total cholesterol; **TG:** triglycerides

DISCLAIMER:

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