Canadian Cardiovascular Society Lipid Guidelines

Screening

Who? Men over 40 yrs of age
Women over 50 yrs of age

Consider younger age screening in high risk ethnic populations (South Asian and Fist Nations)

AND

The following groups at any age: -

Smokers
Diabetes
Arterial hypertension
Family hx of premature CVD (1st degree relative < 55 yrs for men and < 60 yrs for women)
Family hx of dyslipidemia
ED
CKD (eGFR <60 or ACR > 3 mg/mmol)
Inflammatory diseases (RA, lupus, psoriatic arthritis, ankylosing spondylitis and IBD)
COPD
Known atherosclerosis or AA
Clinically evident hyperlipidemia (xanthomas, xanthelasmas or premature arcus cornealis)
BMI > 27 kg/sq. metre, metabolic syndrome, pre-diabetes or PCOS

How to screen:

Lipid screen
Calculate non HDL-C
Glucose
eGFR

Optional - Apo-B (not covered), ACR if eGFR <60, HTN or DM.

How often?

Framingham <5% - repeat every 3-5 years
Framingham >5% - Repeat annually

Note:

Framingham is generally considered to overestimate risk (5% in men)
Should be done every 3-5 yrs in men 40-75 and women 50-75.
Double risk for family hx of premature CVD
May use Cardiovascular Age to motivate (modified Framingham)

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Levels of Risk

Low Risk

1. Initiate therapy if LDL is >5 mmol/L or if there is evidence of genetic dyslipidemia
2. Target 50% reduction

Note: There is less clinical trial evidence in this group - discuss risk/benefits with patients

In low risk individuals with FRS 5-9% monitor annually.

Intermediate Risk

1. Individuals with FRS > 10% and <20%
2. Treat if LDL is >3.5 mmol/L
3. If LDL is <3.5 mmol/L use either Apo-B at or greater than 1.2 g/L or non-HDL-C at or greater than 4.3 mmol/L to identify patients who might benefit from pharmacotherapy.
4. Target LDL reduction of 50% or <2.0 mmol/L for intermediate patients in whom treatment is initiated.
5. Alternate targets: Apo-B at no more than 0.8 g/L or non-HDL-C no higher than 2.6 mmol/L

Note

Non-HDL-C is reported with all lipid screens - is useful if apo B is not available and in patients with TG's >4.5 mmol/L.
Non-HDL-C and apo-B are applicable in a non-fasting state

High Risk

1. Defined as: clinical atherosclerosis, AAA or an adjusted FRS of >20%.
2. Also includes:
   - Diabetes - age over 30 yrs with DM of more than 15 yrs duration
   - Diabetes - age over 40 yrs or with presence of microvascular disease.
   - High risk CKD - eGFR <45 or ACR >30 OR eGFR <60 and ACR >3
   - HTN + 3 of the following - male, age > 55 yrs, smoking, CHOL/HDL >6, LV Hypertrophy, family hx of premature CVD, ECG abnormalities or microalbumenuria.
3. Target LDL < 2.0 mmol/L or 50% reduction after treatment
4. Apo-B at no more than 0.8 g/L or non-HDL-C at no more than 2.6 mmol/L may be considered as alternative targets

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Secondary testing may be appropriate for:

1. Intermediate risk patients (FRS 10-19%) who are not candidates for lipid treatment based on conventional risk factors for whom treatment decisions are uncertain
2. Low risk patients (FRS 5-9%) but with strong family hx of premature CAD, abdominal obesity, South Asian ancestry or IGT.

Test can include:

A1c, ACR, hsCRP.
Also - if suspicion of PAD - refer for ABI, stress test for sedentary individuals, carotid ultrasound.

Statin Intolerance

Overall risk/benefit ratio favours therapy in patients meeting the criteria for lipid lowering therapy and CV risk reduction.

1. All statin related sx should be evaluated - include observation during cessation, reinitiation - may use same or different statin, same or lower potency, same or decreased frequency of administration - to identify a tolerated statin therapy. Any usage has demonstrated benefit even if targets are not achieved.
2. Statins should not be withheld on on the basis of potential, small risk of new onset diabetes.
3. No vitamins, minerals or supplements for sx of statin induced myalgia are recommended.

Follow up

Statins are generally well tolerated
AST and ALT should be checked within the first 3 mo.
CK can be checked if myalgias develop
Routine testing of ALT and CK is not required thereafter.