

Who to screen with fasting or non-fasting TC, TG, HDL-C, calculated LDL-C and non-HDL-C with ApoB when appropriate and Lp(a) once:

- Men ≥ 40 yrs old; Women ≥ 40 yrs old or postmenopausal; at younger age in Indigenous and South Asian individuals
- At any age in patients with:
 - Clinical ASCVD
 - Evidence of preclinical ASCVD (e.g. CACS or carotid ultrasound abnormalities)
 - Abdominal aortic aneurysm (AAA)
 - Diabetes
 - Arterial hypertension
 - Currently smoking
 - Stigmata of dyslipidemia: tendinous xanthomas (also corneal arcus, xanthelasmas if < 45 yrs old)
 - Family history of premature CVD in first degree relative (male < 55 yrs old; female < 65 yrs old)
 - Family history of dyslipidemia (including Elevated Lp(a), especially ≥ 50 mg/dL or ≥ 100 nmol/L)
 - Chronic kidney disease (eGFR ≤ 60 mL/min/1.73 m² or ACR ≥ 3 mg/mmol)
 - Obesity (BMI ≥ 30 kg/m²)
 - Inflammatory diseases (e.g., RA, SLE, PsA, AS, IBD)
 - HIV infection
 - Erectile dysfunction
 - Chronic obstructive pulmonary disease
 - Pregnancy-related complications (hypertensive disease of pregnancy, gestational diabetes, pre-term birth, stillbirth, low birthweight infant, placental abruption)

Who to treat based on clinical factors (Framingham Risk Score [FRS] not needed):

- Statin-indicated Conditions:
 - Clinical ASCVD/AAA
 - Diabetes mellitus if > 40 yrs old, or > 30 yrs old with microvascular disease or > 15 years duration
 - Chronic kidney disease (non-dialysis, eGFR < 60 mL/min or urine ACR ≥ 3.0 mg/mmol)
 - FH or LDL-C ≥ 5.0 or non-HDL-C ≥ 5.8 mmol/L or ApoB ≥ 1.45 g/L
- Patients with very high TG ≥ 10 mmol/L and/or history of TG-related pancreatitis.

Who to treat based on FRS:

- High FRS ($\geq 20\%/10$ yrs)
- Intermediate FRS (10-19.9%/10-yrs) and LDL-C ≥ 3.5 mmol/L or non-HDL-C ≥ 4.2 mmol/L or ApoB ≥ 1.05 g/L
- Intermediate FRS (10-19.9%/10-yrs) and LDL-C < 3.5 mmol/L or non-HDL-C < 4.2 mmol/L or ApoB < 1.05 g/L or other risk modifiers FHx, Lp(a) ≥ 50 mg/dL [or ≥ 100 nmol/L] or CAC > 0 AU)
- Low FRS (5-9.9%/10-yrs) with LDL-C ≥ 3.5 mmol/L or non-HDL-C ≥ 4.2 mmol/L or ApoB ≥ 1.05 g/L or other risk modifiers FHx, Lp(a) ≥ 50 mg/dL [or ≥ 100 nmol/L] or CAC > 0 AU)

Factors not in FRS suggesting that calculated risk may be underestimated:

- From RCTs:
 - JUPITER: CRP > 2.0 mg/L
 - HOPE-3: Waist/hip ratio ≥ 0.85 (women) or ≥ 0.90 (men), IFG/IGT, (pre-diabetes, metabolic syndrome)
 - ASCOT: LVH/other EKG abnormalities
- From epidemiology (consider ethnicity and factors g – p Step 1)

Factors not in FRS suggesting that calculated risk may be overestimated:

- CAC = 0 Agatston Units in Moderate FRS patients

What to monitor:

- If TG < 1.5 mmol/L, monitor treatment with LDL-C, non-HDL-C or ApoB (fasting or non-fasting)
- If TG ≥ 1.5 mmol/L, monitor treatment with non-HDL-C or ApoB (fasting or non-fasting)

What to use:

- Behavioural advice to optimize diet (including alcohol use), weight, and activity levels and to promote smoking cessation (including specific pharmacotherapy when warranted)
- Maximally tolerated statin for those described in Tables 2 and 3
- In CV primary prevention of patients with FH, using threshold of LDL-C ≥ 2.5 mmol/L, non-HDL-C ≥ 3.2 mmol/L, ApoB ≥ 0.85 g/L, or $< 50\%$ lowering of LDL-C, consider adding PCSK9 inhibitor, with/without ezetimibe
- In other settings of CV primary prevention, using threshold of LDL-C ≥ 2.0 mmol/L, non-HDL-C ≥ 2.6 , ApoB ≥ 0.80 g/L or $< 50\%$ lowering of LDL-C, consider use of ezetimibe (or bile acid sequestrant)
- Add therapy in CV secondary prevention, using thresholds of LDL-C ≥ 1.8 mmol/L, non-HDL-C ≥ 2.4 , ApoB ≥ 0.70 g/L
 - Ezetimibe \pm PCSK9 inhibitor (if LDL-C 1.8 – 2.2 mmol/L, non-HDL-C 2.4 – 2.9 mmol/L, or ApoB 0.7 – 0.8 g/L, ezetimibe may suffice)
 - PCSK9 inhibitor \pm ezetimibe (PCSK9 inhibitor particularly if LDL-C > 2.2 mmol/L, non-HDL-C > 2.9 mmol/L or ApoB > 0.8 g/L) or in very high risk patients who derive the most benefit from PCSK9 inhibitors, e.g. ACS within 1 year, diabetes mellitus or metabolic syndrome, poly-vascular disease, MI within 2 years, recurrent MI, prior coronary artery bypass surgery, symptomatic peripheral arterial disease, FH or residual LDL-C ≥ 2.6 on maximal statins, elevated Lipoprotein (a) ≥ 60 mg/dL.)
- Icosapent ethyl in primary prevention patients with diabetes and an additional risk factor or secondary prevention patients when, in both instances, TG is ≥ 1.5 mmol/L and ≤ 5.6 , on maximally tolerated statin
- When icosapent ethyl is not indicated but TG requires management (e.g., very high TG ≥ 10 mmol/L or concern about TG-related pancreatitis), use micronized fenofibrate