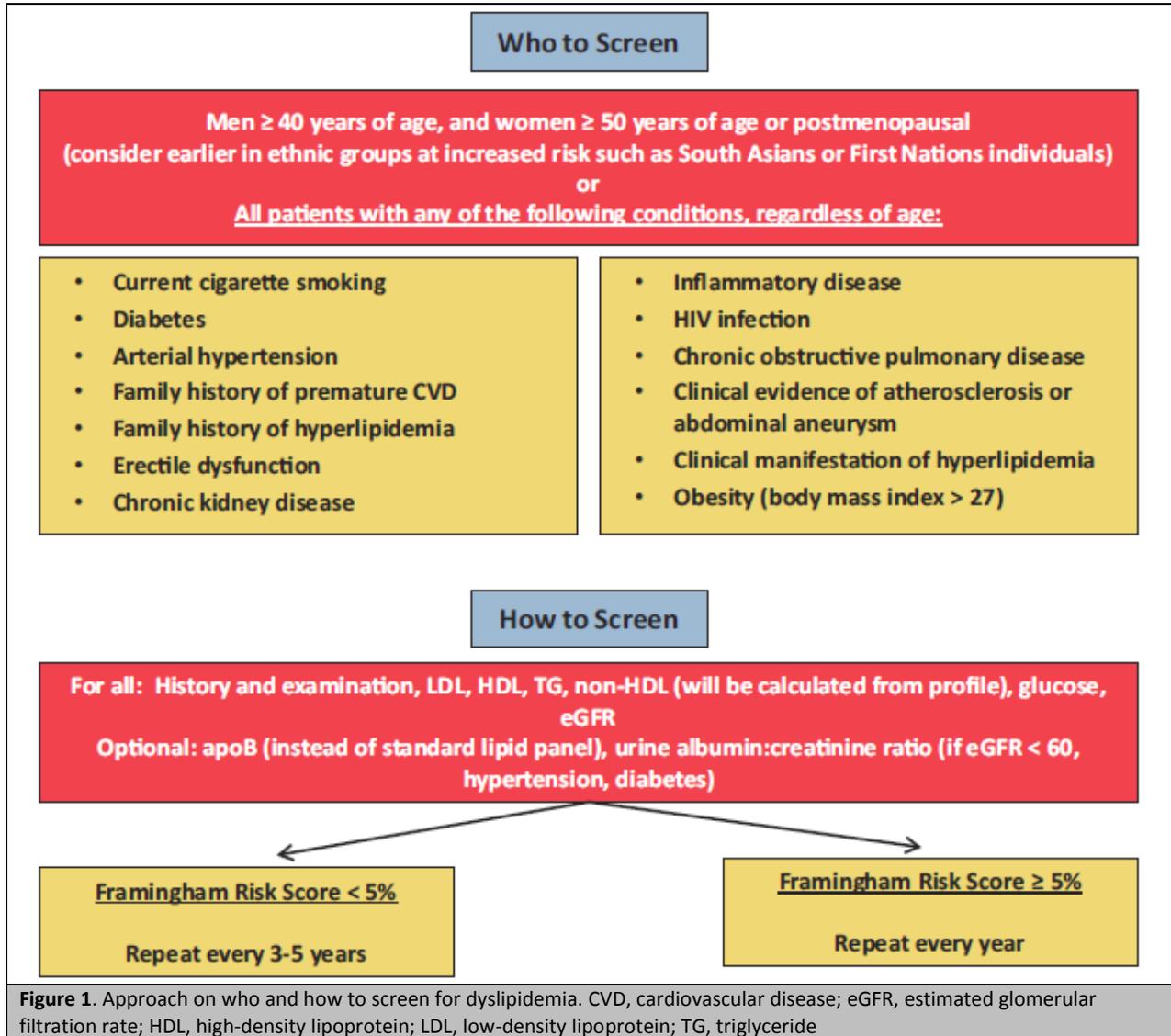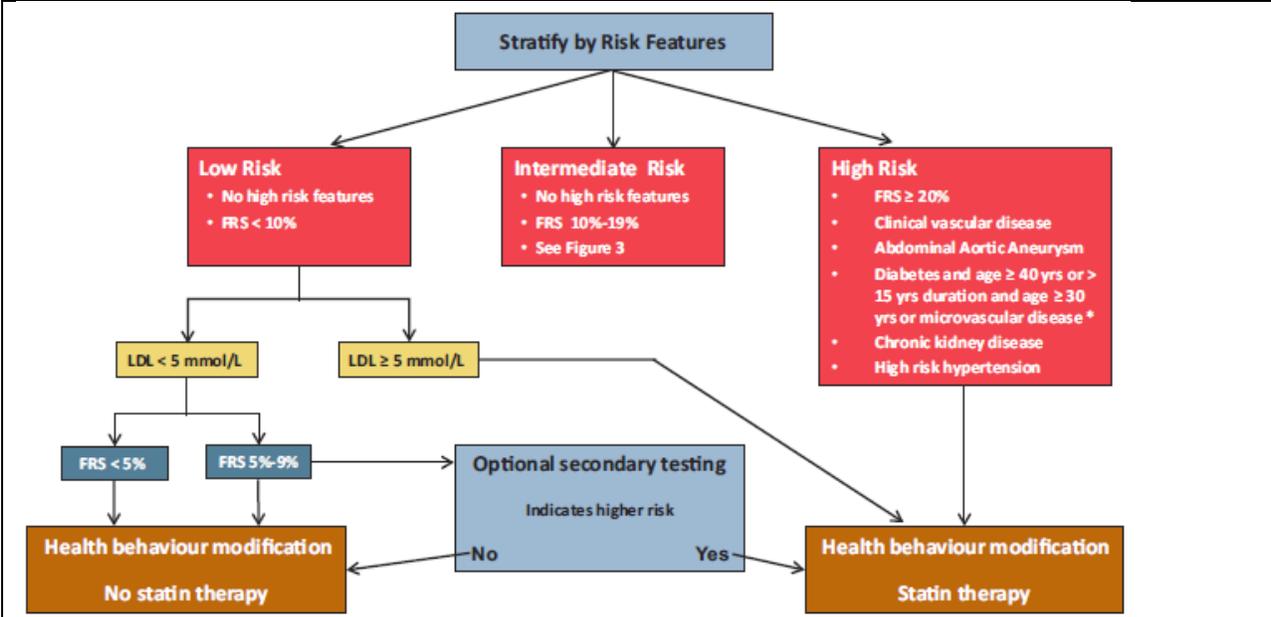# Update of the Canadian Cardiovascular Society Guidelines for the Diagnosis and Treatment of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult[1]

Who to Screen

**Men ≥ 40 years of age, and women ≥ 50 years of age or postmenopausal
(consider earlier in ethnic groups at increased risk such as South Asians or First Nations individuals)
or
All patients with any of the following conditions, regardless of age:**

- Current cigarette smoking
- Diabetes
- Arterial hypertension
- Family history of premature CVD
- Family history of hyperlipidemia
- Erectile dysfunction
- Chronic kidney disease

- Inflammatory disease
- HIV infection
- Chronic obstructive pulmonary disease
- Clinical evidence of atherosclerosis or abdominal aneurysm
- Clinical manifestation of hyperlipidemia
- Obesity (body mass index > 27)

How to Screen

For all: History and examination, LDL, HDL, TG, non-HDL (will be calculated from profile), glucose, eGFR
Optional: apoB (instead of standard lipid panel), urine albumin:creatinine ratio (if eGFR < 60, hypertension, diabetes)

Framingham Risk Score < 5%

Repeat every 3-5 years

Framingham Risk Score ≥ 5%

Repeat every year

Figure 1. Approach on who and how to screen for dyslipidemia. CVD, cardiovascular disease; eGFR, estimated glomerular filtration rate; HDL, high-density lipoprotein; LDL, low-density lipoprotein; TG, triglyceride

Figure 2. Risk stratification by Framingham Risk Score (FRS) and phenotype.*Not all subjects with diabetes are at high 10-year risk; included for treatment based on randomized studies and high long-term risk
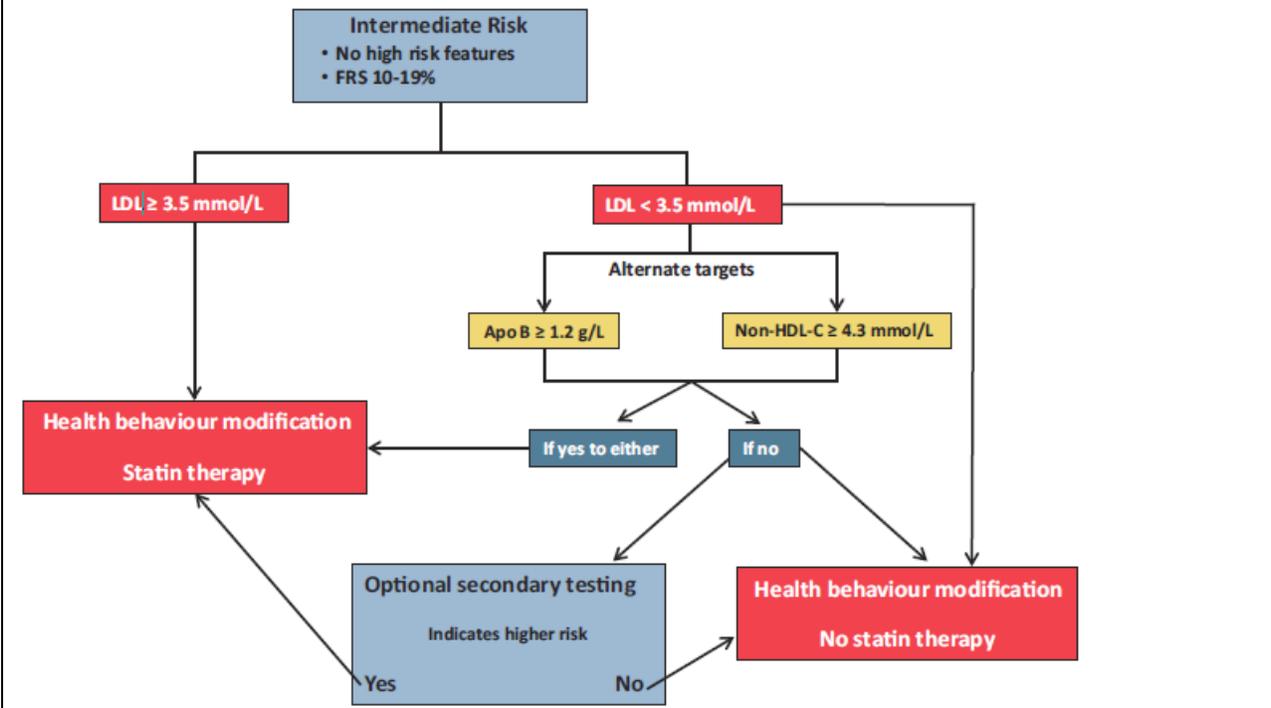
Figure 3. Risk stratification for intermediate risk subjects; subjects with intermediate risk and low-density lipoprotein (LDL) 3.5 mmol/L have the option of health behaviour modification or additional risk stratification based on alternate targets (apolipoprotein [Apo] B or non-high-density lipoprotein cholesterol [HDL-C]) or secondary testing

Risk level	Initiate therapy if	Primary target LDL C	Alternate target
High **FRS ≥ 20%**	**Consider treatment in all (Strong, High)**	**≤ 2 mmol/L or ≥ 50% decrease in LDL-C (Strong, High)**	➢ **Apo B ≤ 0.8 g/L** ➢**Non HDL-C ≤ 2.6 mmol/L (Strong, High)**
Intermediate **FRS 10%-19%**	➢ **LDL-C ≥ 3.5 mmol/L (Strong, Moderate)** ➢ **For LDL-C < 3.5 consider if: Apo B ≥ 1.2 g/L or Non-HDL-C ≥ 4.3 mmol/L (Strong, Moderate)**	**≤ 2 mmol/L or ≥ 50% decrease in LDL-C (Strong, Moderate)**	➢ **Apo B ≤ 0.8 mg/L** ➢**Non HDL-C ≤ 2.6 mmol/L (Strong, Moderate)**
Low **FRS < 10%**	➢ **LDL-C ≥ 5.0 mmol/L** ➢ **Familial hypercholesterolemia (Strong, Moderate)**	**≥ 50% reduction in LDL-C (Strong, Moderate)**	

Figure 4. Summary of treatment thresholds and targets based on Framingham Risk Score (FRS), modified by family history. HDL-C, high-density lipoprotein C; LDL-C, low-density lipoprotein cholesterol

References

1- Anderson et al., 2012 Update of the Canadian Cardiovascular Society Guidelines for the Diagnosis and Treatment of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult. Canadian Journal of Cardiology 29 (2013) 151–167