Dyslipidaemia

Therapeutic 2

Total cholesterol (TC)[a]	<4.0 mmol/L
LDL cholesterol (LDL-C)[a]	<2.0 mmol/L
Triglycerides[b]	<1.7 mmol/L
HDL cholesterol (HDL-C)	>1.0 mmol/L in men
	>1.2 mmol/L in women

Optimal serum lipid profile

Note:

LDL – C= (Total cholesterol- HDL - C) -(0.45 triglyceride) mmol/L.

Risk Assessment

Framingham

Cardiovascular Risk Assessment

What is this patient's risk of cardiovascular disease (CVD)?

Patient Name: _____ Date: _____

Current Lipid Values: LDL-C [ ] TC [ ] HDL-C [ ] Apo B [ ]

Framingham Table[1]

RISK FACTOR	RISK POINTS (MEN)		RISK POINTS (WOMEN)		POINTS
Age 30-34 (years)	0		0		
35-39	2		2		
40-44	5		4		
45-49	7		5		
50-54	8		7		
55-59	10		8		
60-64	11		9		
65-69	13		10		
70-74	14		11		
75+	15		12		
HDL-C level (mmol/L)					
>1.6	-2		-2		
1.3-1.6	-1		-1		
1.2-1.3	0		0		
0.9-1.2	1		1		
<0.9	2		2		
Total cholesterol level (mmol/L)					
<4.1	0		0		
4.1-5.2	1		1		
5.2-6.2	2		3		
6.2-7.2	3		4		
>7.2	4		5		
Systolic blood pressure (mmHg)	**Untreated**	**Treated**	**Untreated**	**Treated**	
<120	-2	0	-3	-1	
120-129	0	2	0	2	
130-139	1	3	1	3	
140-149	2	4	2	5	
150-159	2	4	4	6	
>160	3	5	5	7	
Smoker					
No	0		0		
Yes	4		3		
Diabetes					
No	0		0		
Yes	3		4		
				TOTAL POINTS	

TOTAL RISK POINTS	10-YEAR CVD RISK (%)	
	MEN	WOMEN
-3 or less	<1	<1
2	1.1	<1
1	1.4	1.0
0	1.6	1.2
1	1.9	1.5
2	2.3	1.7
3	2.8	2.0
4	3.3	2.4
5	3.9	2.8
6	4.7	3.3
7	5.6	3.9
8	6.7	4.5
9	7.9	5.3
10	9.4	6.3
11	11.2	7.3
12	13.3	8.6
13	15.6	10.0
14	18.4	11.7
15	21.6	13.7
16	25.3	15.9
17	29.4	18.51
18	>30	21.5
19	>30	24.8
20	>30	27.5
21+	>30	>30

10-year CVD risk:___%

Is there a positive family history of CVD in a first-degree relative before age 60?

☐ YES (if so, multiply above 10-year CVD risk (%) by 2)
Calculation: 10-year CVD risk % X 2 = %
→ *see other side*

☐ NO → *see other side*

Cardiovascular Risk Assessment

2009 Canadian Dyslipidemia Guidelines

Risk Level	Initiate treatment if:	Primary treatment target: LDL-C	Alternate primary target
HIGH (10-year CVD risk ≥20%)	CAD, PVD, Atherosclerosis*, Most patients with diabetes**	<2.0 mmol/L **or** 50% ↓ LDL-C	apo B <0.80 g/L
MODERATE (10-year CVD risk 10-19%)	LDL-C >3.5 mmol/L **or** TC/HDL-C >5.0 **or** hsCRP >2 mg/L in men >50 years and women >60 years	<2.0 mmol/L **or** 50% ↓ LDL-C	apo B <0.80 g/L
LOW (10-year CVD risk <10%)	LDL-C ≥5.0 mmol/L	50% ↓ LDL-C	

In patients with a family history of CVD in a first-degree relative before age 60, the calculated 10-year CVD risk should be multiplied by 2.

Lipid targets LDL-C: _____ or **Apo B:** _____

Adapted from Genest J et al. In press. 2009.[1]

* evidence of atherosclerosis = vascular bruits, ABI <0.9, documented CAD, CVA, (TIA or evidence of carotid disease) or peripheral vascular disease

** in men >45 years, women >50 years with diabetes, as well as some younger people with diabetes who have additional risk as per CDA guidelines

Identification of the METABOLIC SYNDROME†

Central obesity:

☐ Waist circumference
>94 cm† in men
>80 cm in women

Plus 2 of these factors:

☐ Triglyceride level
>1.7 mmol/L

☐ HDL-cholesterol
<1.03 mmol/L in men
<1.3 mmol/L in women

☐ Blood pressure
>130/85 mmHg
(or treatment for hypertension)

☐ Fasting glucose (blood sugar) level
>5.6 mmol/L

Consider moving some patients with metabolic syndrome up a risk level based on their 'load' of metabolic risk factors or the 'severity' of their metabolic syndrome.

† >90 cm in south Asian, Chinese, Japanese, ethnic south and central American and First Nations men

1. Genest J et al. 2009 Canadian Cardiovascular Society/Canadian guidelines for the diagnosis and treatment of dyslipidemia and prevention of cardiovascular disease in the adult. *Can J Cardiol* 2009;10(25):1-13.

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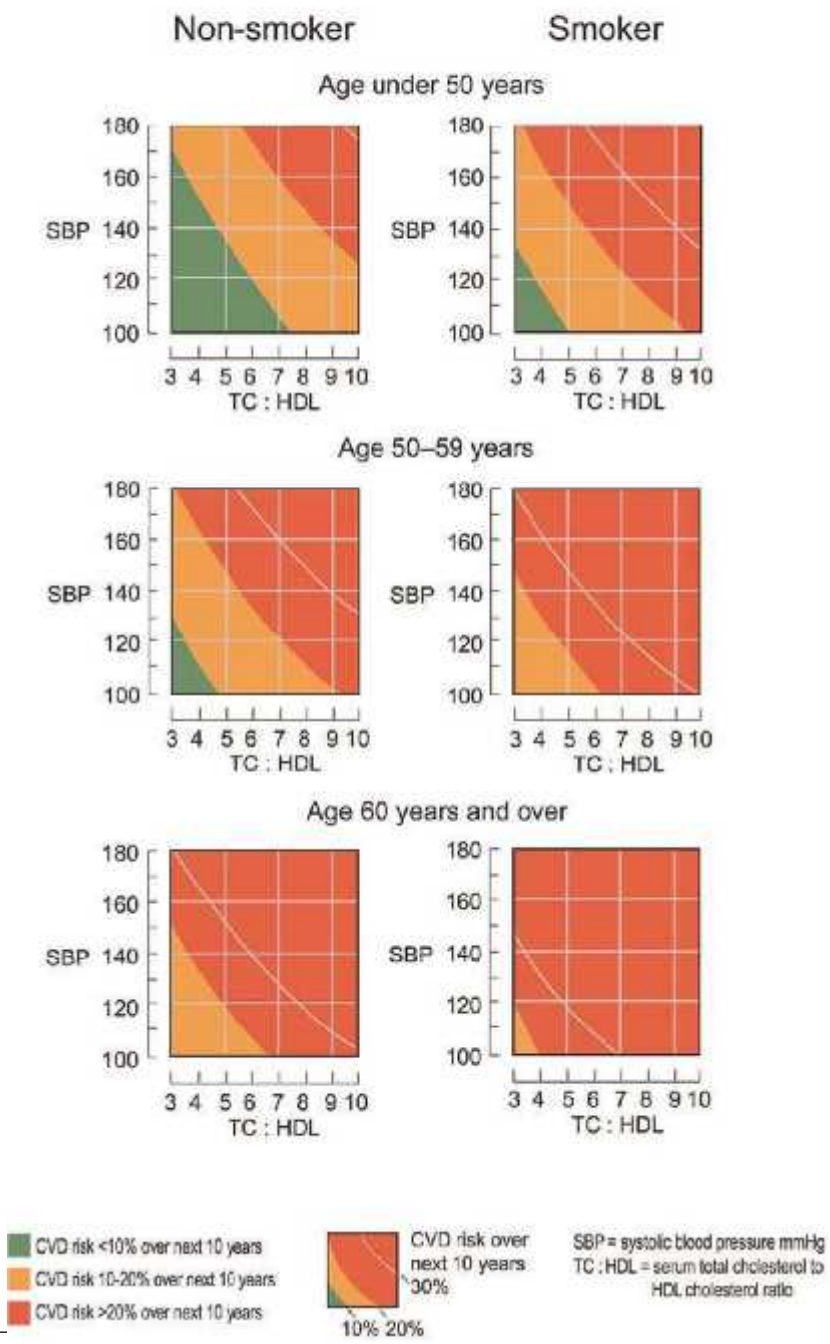
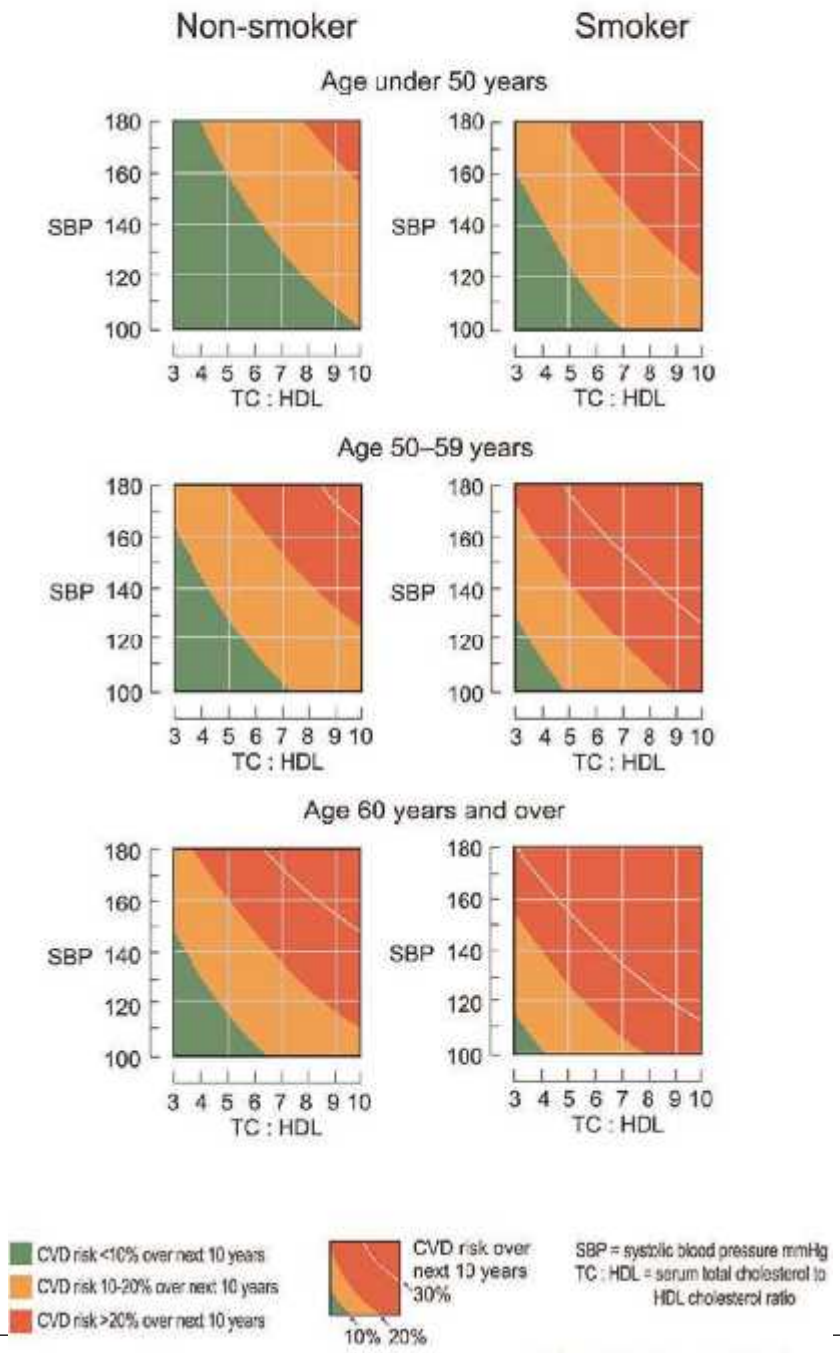
Nondiabetic Men



Nondiabetic Women



Case 1

Mr DF is a 43-year-old man, non-smoker who has been relatively fit and well for the past 20 years during which he has rarely visited his primary care doctor. Two weeks ago he was admitted to hospital having suffered a myocardial infarction. on questioning it was revealed that his brother had died in a road traffic accident at the age of 19 and his father had died from CHD aged 54 years. Examination of Mr DF revealed a corneal arcus and tendon xanthomas. Blood drawn within 2 h of the onset of his myocardial infarction revealed TC 7.8 mmol/L, HDL-c 0.9 mmol/L and triglycerides 2.3 mmol/L, BP 155/95

Questions

1. What are the treatment options for his dyslipidaemia?
2. Mr DF wants to know why he was not identified as being at high risk of CHD before he suffered his myocardial infarction (calculate the 10 years CVD risk by framingham)?