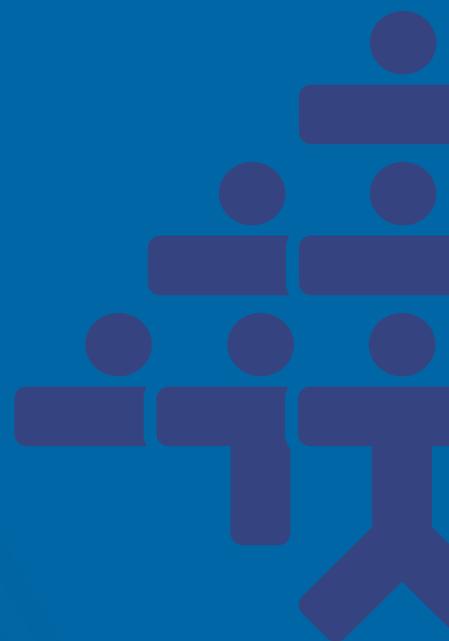


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## Good Practice Points: Cardiovascular Disease Prevention

Authors:  
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# ***Good Practice Points on Cardiovascular Disease Prevention***

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QUALITY AND SAFETY IN PRACTICE COMMITTEE

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## Good Practice Points on Cardiovascular Prevention

<b>Physical activity(1)</b>	150 minutes a week of moderate aerobic activity (30 minutes for 5 days/week) or 75 minutes a week of vigorous aerobic activity (15 minutes for 5 days/week) or a combination. <b>However, any increase in physical activity is beneficial even if not reaching these goals.</b>
<b>Smoking(1)</b>	No exposure to tobacco in any form.
<b>Alcohol(2)</b>	Moderate alcohol intake (recommended $\leq 11$ units/week for women, $\leq 17$ units/week for men) except in those with alcohol associated disease e.g. alcohol related cardiomyopathy, hypertriglyceridaemia, atrial fibrillation where abstinence is advised.
<b>Diet(1)</b>	Healthy diet low in saturated fat with a focus on wholegrain products, vegetables, fruit, and fish.
<b>Weight(3)</b>	BMI 18.5–25 kg/m <sup>2</sup> Waist circumference <94 cm (men) and <80 cm (women).
<b>Blood pressure(4)</b>	<140/90 mmHg (<150/90mmHg in >80 years old can be considered).
<b>HbA1c(5)</b>	HbA1c <53 mmol/mol In patients with T2DM, consider metformin 1 <sup>st</sup> line followed by SGLT2 inhibitors and GLP1 RA preferentially for glucose control in those with established CV disease. <i>Less-stringent HbA1c goals [e.g. &lt;64 mmol/mol or <math>\leq 75</math> mmol/mol] may be adequate for elderly patients with long-standing Diabetes Mellitus (DM), limited life expectancy and frailty with multiple comorbidities.</i>
<b>Immunisations(6)</b>	Influenza vaccine annually in all over 65-years or those < 65 years old with established chronic cardiovascular disease. One dose of pneumococcal vaccine is recommended for all aged 65 years and older and in those < 65 years old with chronic cardiovascular disease. This should be repeated once when >65 years old if more than five years since last pneumococcal vaccine.

**Table 1: LDL Targets(1)**

<b>Risk category</b>	<b>Indicators</b>	<b>Target LDL*</b>
<b>Recurrent vascular events</b>	<ul style="list-style-type: none"> <li>Two or more vascular events in 2 years on maximum tolerated statin therapy already (e.g. MI, stroke, TIA etc.)</li> </ul>	<1.0mmol/l
<b>Very high risk</b>	<ul style="list-style-type: none"> <li>Documented atherosclerosis on imaging or clinically e.g. angina</li> <li>DM with target organ damage, three or more major risk factors or type 1 DM for &gt;20 years</li> <li>Severe CKD (eGFR &lt;30ml/min/173m<sup>2</sup>)</li> <li>A calculated SCORE &gt;10% (≈ Qrisk3 &gt;30%)*</li> </ul>	<1.4mmol/l and >50% reduction in LDL
<b>High risk</b>	<ul style="list-style-type: none"> <li>Markedly elevated single risk factors (total cholesterol&gt;8mmol/l, LDL &gt;4.9mmol/l, BP &gt;180/110)</li> <li>DM for &gt; 10 years or other additional risk factors</li> <li>Moderate CKD (eGFR 30-59ml/min/1.73m<sup>2</sup>)</li> <li>SCORE 5-9% (≈ Qrisk3 15-29%)*</li> </ul>	<1.8mmol/l and >50% reduction in LDL
<b>Moderate risk</b>	<ul style="list-style-type: none"> <li>DM duration &lt;10 years without other CV risk factors in those &lt;50 years of age with T2DM or &lt;35 years with T1DM</li> <li>SCORE 1-4% (≈ Qrisk3 5-14%)*</li> </ul>	<2.6mmol/l
<b>Low risk</b>	<ul style="list-style-type: none"> <li>SCORE &lt;1% (≈ Qrisk3 &lt;5%)*</li> </ul>	<3.0mmol/l

**\* Only if appropriate and achievable. This will depend on many factors such as patient age and life expectancy, physical status, baseline LDL, drug and disease interactions and patient preferences.**

MI – myocardial infarction, TIA – transient ischaemic attack, DM – diabetes mellitus, CKD – chronic kidney disease SCORE = European Society of Cardiology (ESC) SCORE risk chart

### **\*Risk scores**

- The ESC SCORE uses fatal cardiovascular events only as the outcome whereas other scoring systems such as Qrisk 3 use both fatal and non-fatal events as the outcome.
- The SCORE data indicate that the total CVD (fatal and non-fatal) event risk is about three times higher than the risk of fatal CVD for men, so a SCORE risk of 5% translates into a CVD risk of ~15% of total (fatal + non-fatal) CVD endpoints (Qrisk3).
- The multiplier is higher in women and lower in older people.
- The values for Qrisk 3 in table 1 are approximate equivalents based on the above calculations.
- Risk scores should not be used for those who have another feature which places them in a high-risk category e.g. established ASCVD.

### **Risk modifiers in CV disease – these are additional factors to consider in borderline cases as increasing risk (in addition to factors used in some risk scores)**

- Social deprivation
- Chronic inflammatory conditions e.g. rheumatoid arthritis
- Obesity
- Atrial fibrillation
- Physical inactivity
- Left ventricular hypertrophy
- Severe mental illness
- Chronic kidney disease
- Family history of premature CV disease (men <55 years, women <65 years)
- Obstructive sleep apnoea
- Non-alcoholic fatty liver disease
- History of pregnancy associated conditions (premature menopause, pre-eclampsia)
- High-risk ethnicities (South Asian)

### Expected reduction with LDL lowering therapies

- Moderate intensity statin 30% reduction
- High intensity statin 50% reduction
- High intensity statin + ezetimibe 65% reduction

*Moderate intensity statin* = Atorvastatin 10 mg - 20 mg, Rosuvastatin 5 mg-10 mg, Simvastatin 20-40 mg

*High intensity statin* = Atorvastatin 40 mg-80 mg, Rosuvastatin 20 mg-40 mg

Further details can be accessed through the [ICGP Clinical Hub](#) on the ICGP website.

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