

Cardiovascular and Diabetes Risk Assessment

What's new?

The overarching principle is that the intensity of interventions should be proportional to the size of the estimated combined cardiovascular disease (CVD) risk. This recommendation has not changed.

Relative risk reductions are more or less constant across the spectrum of combined risk. The higher the combined risk, the larger the absolute benefit of treating one or more risk factors.

The majority of patients with:

- an estimated five-year combined CVD risk below 10 percent can generally be well managed without drug treatment
- an estimated five-year combined CVD risk between 10 percent and 20 percent will benefit from shared decision making about the benefits and harms of blood pressure (BP) and lipid-lowering drugs
- a combined CVD risk over 20 percent, including patients with a personal history of CVD, are likely to benefit significantly from blood pressure lowering, lipid-lowering and antiplatelet medication, over and above intensive non-pharmacological interventions.

Clinical judgment and informed patient preferences (shared decision-making) should feature in decisions about treatment for all people, and particularly for those in the 'intermediate' range of risk and for younger or older people. Shared treatment decisions should take into account an individual's estimated five-year combined¹ CVD risk and the

magnitude of absolute benefits and the harms of interventions. Individuals will vary in the way they interpret these risk estimates and in their desire and willingness to act on them.

Measuring lipids

Non-fasting tests are an appropriate way of measuring lipids. One non-fasting measurement is appropriate for risk assessment.

Measuring HbA1c for diabetes

HbA1c is the preferred test for the majority of people. Any patient with an HbA1c from 41 to 49 requires advice about reducing their risk of diabetes. Fasting is never required for HbA1c.

The Ministry of Health has provided advice about **pre-diabetes** at www.hiirc.org.nz (search for 'pre-diabetes advice').

Monitoring lipids

For combined risk over 20 percent, monitoring of non-fasting lipids every three to six months until stable and then every one to two years is recommended.

For combined risk under 20 percent, the aim is to achieve a moderate reduction in LDL-C. Re-measurement can wait until the next combined risk assessment.

Following lifestyle management interventions, non-fasting lipids should be repeated at time of review, usually after 6 to 12 months.

¹ The word 'combined' is used to reflect the calculated risk based on the combined effects of known cardiovascular risk factors.

Non face-to-face cardiovascular risk assessment: It is reasonable to apply blood pressure, non-fasting total cholesterol, HDL-C and HbA1c (or fasting glucose) measurements that have been recorded during the previous five years if the person's circumstances **have not significantly changed**. The higher the risk level that is established in retrospect, the more important it is to establish a current estimate. **The result must be communicated to the patient.**

The recommended interventions, goals and follow-up based on cardiovascular risk assessment

Cardiovascular risk	Lifestyle	Drug therapy	Follow-up
Established CVD	Intensive lifestyle advice (diet, physical activity, smoking cessation) simultaneously with drug treatment	Strong evidence of benefit from BP-lowering, statins and antiplatelet therapy in this group	Risk factor monitoring initially at 3 months, then as clinically indicated
CVD risk calculated >20%	Intensive lifestyle advice (diet, physical activity, smoking cessation) simultaneously with drug treatment	Strong evidence of benefit from BP-lowering, statins and antiplatelet therapy in this group	Annual review or as clinically indicated
10% to 20%	Specific individualised lifestyle advice (diet, physical activity, smoking cessation)	Good evidence demonstrating benefit from BP-lowering and/or statin therapy in this group. The absolute benefits will be smaller at lower levels of combined risk, with increasing benefit of treating both BP and lipids for those with higher five-year combined risk Shared decision-making approach to consider benefits and harms of drug treatment of modifiable risk factors	As clinically indicated, with a more intensive focus for higher combined risk patients If patient not on drug treatment, offer CVD risk assessment at reassessment – at one year for 15% to 20% risk and every two years for 10% to 15% risk
<10%	Lifestyle advice (diet, physical activity, smoking cessation)	Evidence of benefit from BP-lowering and statin therapy in this group is unclear; use a shared decision-making approach to consider benefits and harms of treatment of modifiable risk factors	Offer further CVD risk assessment in 5 to 10 years