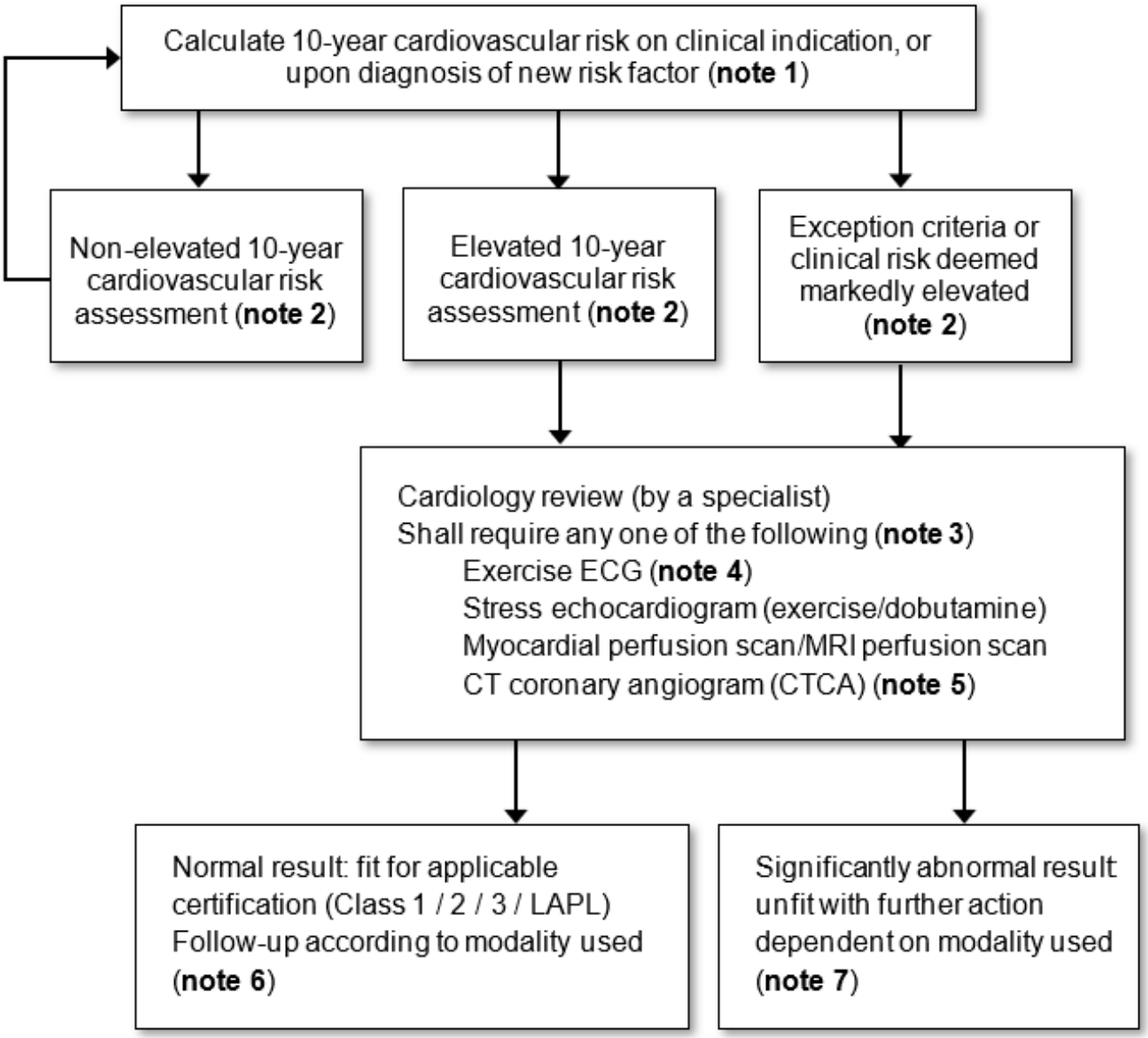
Class 1 / 2 / 3 / LAPL certification: Cardiovascular risk assessment

This flow chart sets out the process for investigation following an assessment of cardiovascular risk.



Cardiovascular risk assessment (note 1)

For all classes, a 10-year cardiovascular risk assessment should be undertaken at the first examination after reaching the age of 40 and at regular intervals thereafter, on clinical indication, or upon a new diagnosis or first declaration of a risk factor (for example, hypertension, type 2 diabetes, chronic kidney disease, obstructive sleep apnoea, menopause, HIV, hyperlipidemia, obesity when BMI is ≥30kg/m^2).

As a guide, cardiovascular risk factor assessment should take place at least once every 5 years for applicants 40 to 49 years old, once every 3 years for applicants 50 to 59 years old and once every 2 years thereafter. A more frequent assessment of the cardiovascular risk factors may be considered when additional risk factors have been identified.

Use the latest QRISK assessment tool or, for certain conditions, other specialist risk assessment tools may be appropriate, for example, D:A:D for people living with HIV and Steno T1 for people with type 1 diabetes, in consultation with a medical assessor.

Criteria for screening (note 2)

The following limits are considered an elevated 10-year cardiovascular risk for the purpose of assessing whether further investigation is required:

- Class 1: ≥10%
- Class 2: ≥15%
- Class 3: ≥15%
- LAPL: ≥25%

Where an applicant meets any of the exception criteria listed below, screening should be undertaken regardless of the 10-year cardiovascular risk assessment:

- treatment resistant hypertension (typified by ≥3 medications with an uncontrolled blood pressure, or ≥4 medications with a controlled blood pressure), or evidence of target-end organ damage (for example, presence of microalbuminuria, renal impairment, retinopathy, left ventricular hypertrophy)
- diabetes with presence of microalbuminuria, or other target-end organ damage (renal impairment, left ventricular hypertrophy, retinopathy), or in the presence of three or more major risk factors (hypertension, dyslipidemia, smoking, obesity), or type 1 diabetes upon reaching age 40 where age of onset was between ages 0-10 years
- chronic kidney disease with eGFR 30-44mL/min/1.73m^2 (stage G3b) plus albumin:creatinine ratio >30mg/mmol
- transplant recipient

This list is not exhaustive. Where it is felt that the clinical risk is markedly elevated, despite the applicant having an acceptable 10-year cardiovascular risk assessment and / or no exception condition, screening should be undertaken.

Screening modalities (note 3)

Any one of the listed modalities may be utilised, with no hierarchy, recognising that some of these investigations are more definitive for the detection of coronary disease than others. Please note that coronary artery calcium scoring (CACS) is unlikely to be accepted without a CTCA.

Exercise ECG (note 4)

Symptom limited according to the Bruce protocol in the cardiovascular system guidance.

CTCA (note 5)

The CTCA should be reported according to the CAA specification for CTCA reports in the cardiovascular system guidance. It is strongly recommended that these guidelines are highlighted in advance to the doctor reporting the CTCA, in order to ensure that the required information is available to allow a fitness decision to be made. If not included in the CTCA report, there may be a delay while this information is obtained.

Follow-up: normal result (note 6)

If an individual is found to have an elevated 10-year cardiovascular risk and undergoes one of the specified screening tests with a satisfactory result, no further screening for coronary artery disease would usually be required until the end of the relevant interval (listed below), provided their risk profile remains stable. A new diagnosis or other significant change in cardiovascular risk should prompt earlier reassessment.

- exercise ECG – two years
- MPS/MRI perfusion scan, stress echocardiogram – three years
- CTCA – six years

It is acceptable if an applicant has undergone any of the above screening tests in preceding year(s), provided the test falls within the specified timeframes. Should an applicant develop a change in their risk factors, a new assessment should be undertaken.

Follow-up: abnormal result (note 7)

Depending on the modality used, further action is required as follows:

- any reversible ischemia on stress imaging requires an unfit assessment, with further management guided by the applicant's treating clinician
- an abnormal CTCA should be assessed as per the CTCA stenosis flow chart in the cardiovascular system guidance
- an abnormal exercise ECG should be assessed as per the investigation of suspected coronary artery disease flow chart in the cardiovascular system guidance