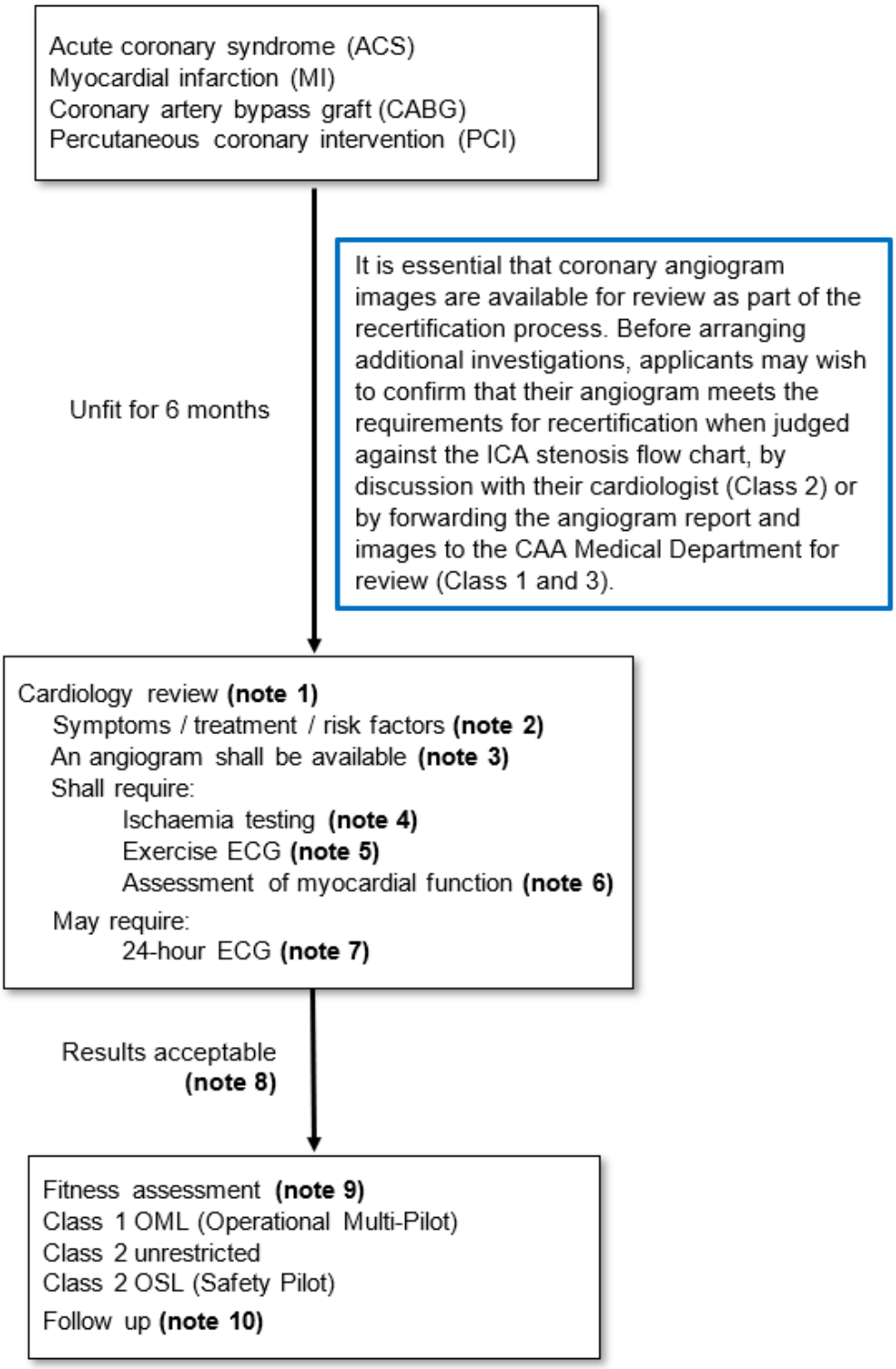
Class 1 / 2 / 3 certification: coronary artery disease (post-event / revascularisation)

This flow chart sets out the process for medical certification after a cardiac event or intervention.



Review by a cardiologist (note 1)

Reports provided to the Civil Aviation Authority (CAA) should follow the specification for cardiology reports in the cardiovascular system guidance.

Symptoms, treatment, risk factors (note 2)

No angina or medication for angina. Risk factors shall be assessed and reduced to an appropriate level. All applicants should be on acceptable secondary prevention treatment.

Angiography (note 3)

CT coronary angiogram (CTCA) or invasive coronary angiogram (ICA) obtained around the time of, or during, the ischaemic myocardial event. The CTCA or ICA should be reported according to the CAA requirements for CTCA reports or ICA reports in the cardiovascular system guidance.

The whole vascular tree should be assessed, considering bystander disease including the presence of diffuse non-obstructive disease, as well as the extent of multiple revascularisations (angioplasty / stents). Chronically occluded vessels may only be acceptable if supplying an area of full thickness infarction.

See the CAA CTCA flow chart or CAA ICA flow chart in the cardiovascular system guidance for aeromedical disposition based on stenosis severity and aggregate stenosis.

Ischaemia testing (note 4)

Ischaemia testing[(a)] must show no evidence of reversible ischaemia and shall be required no sooner than 6 months after any ACS / MI or PCI / CABG procedure.

[(a)] Nuclear myocardial perfusion scintigraphy (MPS) SPECT or PET, stress echocardiogram (dobutamine or exercise), or cardiac MRI (CMR) perfusion scan is acceptable.

[(b)] In cases where MI has occurred, CMR is preferred to determine both myocardial perfusion and myocardial scar burden.

Exercise ECG (note 5)

An exercise ECG must be performed according to the Bruce protocol in the cardiovascular system guidance.

Myocardial function (note 6)

Myocardial function must be assessed and show no important abnormality of wall motion (that is, no akinesia, dyskinesia, or extensive hypokinesia) and left ventricular ejection fraction of ≥50%.

24-hour ECG (note 7)

A 24-hour ECG may be necessary to assess the risk of any significant rhythm disturbance.

Review (note 8)

Class 1 and 3 applicants will require referral to a CAA medical assessor. The cardiology report will be reviewed by a CAA medical assessor for Class 1 and 3 or an aeromedical examiner for Class 2. It may be necessary to see the investigations, in which case the actual DICOM images will be requested. Further investigations may be required.

Fitness assessment (note 9)

Class 1 recertification will require an operational multi-pilot limitation (OML). Unrestricted Class 2 or 3 certification is possible having completed all the above investigations with acceptable results. Class 2 applicants not fully meeting the requirements may be recertified with a safety pilot limitation (OSL) having completed a satisfactory exercise ECG test (as in **note 5**).

Follow up (note 10)

Annual follow-up shall include a specialist cardiology review, cardiovascular risk assessment and an acceptable exercise ECG (as in **note 5**). In all cases coronary angiography and / or ischaemia testing shall be considered at any time if symptoms, signs or non-invasive tests indicate cardiac ischaemia. Additionally, following CABG, stress imaging shall be performed within 5 years from the procedure.