5.2.3 CAA requirements for Stress Echocardiography (also called Stress Echography or Exercise Echography)

Please carry this sheet to your doctor (preferably at the time of booking) so that an appropriate test, one that meets CAA requirements, may be carried out. In case of questions, the Aviation Medicine Team may be contacted at 04 560 9466.

Note: If the tests are not carried out as per these guidelines, (and the necessary reports, images, tracings etc. are not provided), the test may need to be repeated, causing inconvenience, delays, and expense.

Conduct of the test

Exercise testing protocols can be chosen by the supervising physician or laboratory staff. The standard Bruce protocol is preferred. The protocol used should be clearly mentioned.. Testing should be symptoms limited if possible rather than limited to 100% of the predicted maximum heart rate (MHR). The workload in METS, and the duration of exercise should be mentioned. In addition to echocardiographic images, a 12-lead ECG, heart rate, and blood pressure and patient symptoms should be recorded at rest, during exercise, and after stopping exercise, (during recovery).

The reason for terminating the test should be documented. Recovery data should be provided until heart rate, blood pressure, and ECG have returned to near-baseline levels, **(at least for 6 minutes)** after stopping exercise.

Images and Tracings

Some facilities provide images as photographs or on a CD. If available, these should also be sent.

The complete original ECG tracings of the test, from resting ECG, through exercise, and recovery should be provided along with the report provided by the physician (Comparing tracings serially has been repeatedly shown to be invaluable when dealing with pilots and ATC).

Original ECG tracings will be retained by the CAA, so if these are needed for any other purpose, a second original printout (available with most modern machines) may be requested.

Note: Printouts showing signal averaged single complexes of ECGs over the complete test duration are not sufficient.

Report

A report on the stress echocardiogram should in particular comment on any reversible ischaemia. Ideally wall motions of different heart areas should be depicted diagrammatically. The stress ECG full tracing (as above), the cardiac measurements and images should be included with the report. The report, images or CD and tracings should be sent to the requesting party, the ME or CAA.

Please be advised that any costs for this investigation will need to be borne by you.