

Cardiac disease

Subject

Instructions for screening clients with cardiac disease in the context of the Canadian immigration medical examination (IME).

Goal/Objective

These instructions are provided to ensure that panel physicians (PPs) follow a consistent and appropriate process for the following:

- identification of clients with cardiac disease;
- further investigation of clients with cardiac disease in order to provide all the information, so that the medical officer can assess the potential medical service requirements for the client; and
- completion and grading of an IME for clients with cardiac disease.

Instructions

Rationale

Cardiovascular disease represents a growing burden in Canada with an aging population and the adoption of unhealthy lifestyles by young Canadians, immigrants and native peoples. Health Canada has estimated the total cost of cardiovascular disease, on the health sector of the Canadian economy, to be \$18,472.9 million (11.6% of the total cost of all illnesses).

Screening and Testing

Cardiovascular disease (CVD) is the leading cause of death in Canada, accounting for one in three deaths each year. Studies have shown that vascular injury, progressing to cardiovascular disease in adulthood, begins in adolescence. Emphasis should be put in the early detection and prevention of atherosclerosis and vascular damage through a thorough examination and by modifying risk factors such as:

- smoking;
- excess body weight;
- low levels of physical activity; and
- poor eating habits are of utmost importance.

During the medical history-taking and physical examination, PPs should be vigilant for the presence of cardiac disease. If an interpreter is used, the PP must select and ensure that the interpreter is unbiased and has no connection to the client. Family members or friends cannot act as interpreters for clients. The use of a professional interpreter is at the client's expense.

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Through the IME, PPs will **identify risk factors, screen for associated co-morbidity conditions, assess the medical condition and potential related medical needs.**

The identification of clients at risk for cardiovascular disease is based upon a directed medical and surgical history-taking including **co-morbidities (for example, diabetes, hypertension, dyslipidemia)** and dietary, social, demographic and cultural factors, as well as a review of symptoms, and physical examination. Populations at **increased risk include those with diabetes, hypertension, smokers and, a family history of cardiac/kidney disease as well as specific high-risk ethnic groups: Canadian First Nations and of people of African or asian descent.**

During the physical examination, PPs will pay special attention in order to identify associated end-organ damage by:

- performing a funduscopy to assess **retinopathy**;
- checking for symptoms or findings of peripheral anesthetic **neuropathy** or pain, autonomic neuropathy, for example, erectile dysfunction, gastrointestinal disturbance, orthostatic hypotension; include screening via monofilament during foot exam;
- performing a necessary chest auscultation/radiography to assess cardiomegaly and **cardiopathy**; and
- assessing **nephropathy** by paying special attention during the IME to screen for diabetes as well as the blood pressure measure and urinalysis result. (Refer to IMEIs on diabetes, hypertension and urinalysis).
 - hypertension is defined as a repeated blood pressure (repeated 3 times) measured in the doctor's office of:
 - ≥ 140 mmHg systolic pressure; or
 - ≥ 90 mm Hg diastolic pressure.

Once a cardiac disease is identified during the IME, the following information will assist the regional medical office in its assessment of the IME :

- diagnosis and prognosis;
- duration and progression of symptoms;
- level of functioning (for example, provide the internationally accepted New York Heart Association functional classification);
- details of past investigations and treatments (medications, referrals, hospitalizations, surgery, etc.);
- any specialist report available from previous consultations;
- current medications used to treat the disease; and
- anticipated treatment needed (surgery, etc).

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Additional Investigation

Additional testing is required to rule out cardiac disease in clients identified with CVD co-morbidity conditions and risk factors AND who present physical signs of end-organ damage. In those cases, the following additional investigation is required:

- **serum creatinine** testing (refer to IMEI on serum creatinine)
- **referral to a cardiologist** for assessment and determination of the prognosis and treatment requirement, especially in the case of:
 - coronary artery disease;
 - valvular heart disease;
 - cardiomyopathy;
 - congenital heart disease; and/or
 - peripheral (including cerebral) vascular disease.

Reporting

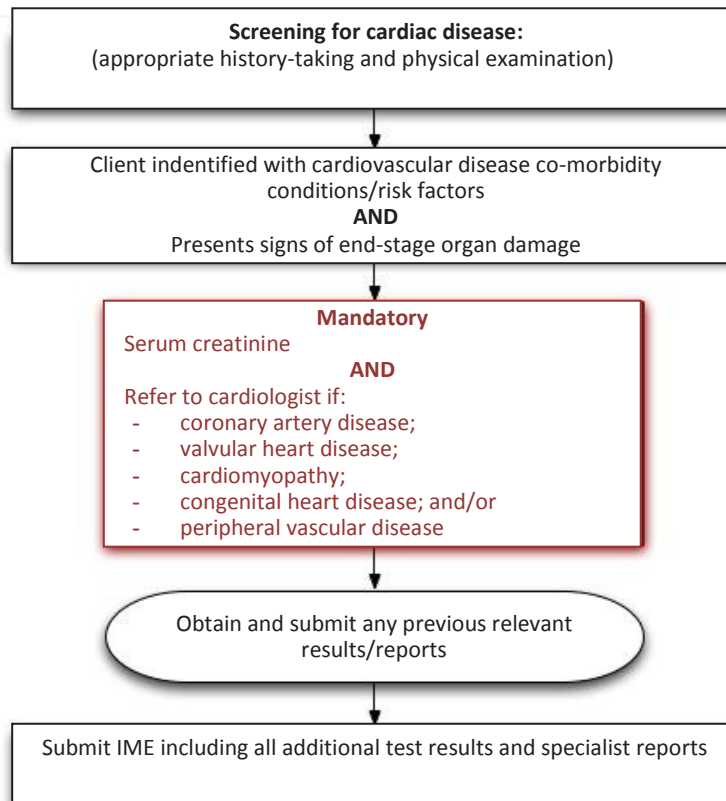
- Any available additional testing information (serum creatinine, EKG, cardiac stress test, echo, etc) must be attached to the IME report.
- Any specialist report that may be available from previous consultations should also be attached.

Grading

All IME's for clients with cardiac disease must be graded B.

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Algorithm



References

New York Heart Association Functional Classification: <http://www.cebp.nl/media/m149.pdf>.

HB Approval and Authority

Director General, NHQ, Health Branch, CIC

Implementation Date

2012/11/01

Revision Date(s)

2013/11/01