

Diabetes

Subject

Instructions for screening clients for diabetes 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 at risk of diabetes;
- further investigation of clients with diabetes in order to provide all the information that will allow the medical officer to assess potential medical service requirements for the client; and
- completion and grading of an IME for a client with diabetes.

Instructions

Rationale

It is particularly important to screen for and identify clients with diabetes as this condition and its potential long-term effects and repercussion on health (including requirement for specialized care and treatment and ultimately dialysis or kidney transplant and immunosuppressive therapy for life) continue to represent a significant burden and excessive demand on Canadian health services.

Diabetes is a major cause of heart disease, the leading cause of death in Canada. It is also the most common cause of blindness and kidney failure in adults. Older adults with diabetes are twice as likely to develop high blood pressure as people without diabetes. People with diabetes are also 25 times more likely to undergo foot and other lower extremity amputations due to circulatory problems. Between one-third and one-half of men who have diabetes will experience erectile dysfunction at some point.

Screening and Testing

During the medical history-taking and physical examination, PPs should be vigilant for the presence of diabetes. 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.

Diabetes

Diabetes is a serious condition with repercussions on several vital organs. During medical questionnaire, PPs will be vigilant for the presence of diabetes risk factors such as the following:

- history of gestational diabetes;
- being 40 years of age or older;
- blood vessel disease including hypertension;
- ethnic groups such as Canadian First Nation, Hispanic, South Asian, Asian, or African descent;
- high cholesterol;
- family history of kidney disease, polycystic ovary syndrome, schizophrenia, pre-diabetes or impaired fasting glucose;
- smoking;
- excess body weight;
- low levels of physical activity; and
- poor eating habits.

It is also important to question clients concerning possible symptoms of diabetes such as unusual thirst, frequent urination, fatigue, blurred vision, cuts and bruises that are slow to heal, tingling or numbness in the hands or feet, or frequent yeast infection in women.

During the physical examination, PPs will pay special attention to signs associated with **end-organ damage**:

- fundoscopy is necessary to assess **retinopathy**;
- check for symptoms or findings such as peripheral anesthetic **neuropathy** or pain, autonomic neuropathy e.g. erectile dysfunction, gastrointestinal disturbance, orthostatic hypotension; include screening via monofilament during foot exam;
- chest auscultation/radiography is necessary to assess **cardiomegaly** and cardiopathy; and
- to assess **nephropathy**, special attention should be brought during the IME to blood pressure measure as well as to urinalysis result.

Screening for diabetes can be done through identification of risk factors in the client or his/her family as well as through physical examination. Special attention should be paid to urinalysis screening and measure of blood pressure (refer to IMEs on urinalysis and hypertension).

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Additional Investigation

- Additional testing for diabetes is required in the following cases:
 - clients with an abnormal urinalysis (refer to urinalysis IMEI);
 - clients considered hypertensive according to blood pressure screening criteria. (refer to hypertension IMEI); and
 - clients who are known known to be or who have signs or symptoms of diabetes i.e. with end-organ damage or with unusual thirst, frequent urination, fatigue, blurred vision, cuts and bruises that are slow to heal, tingling or numbness in the hands or feet, or frequent yeast infection in women.
- Additional tests required:
 - **Serum creatinine test.** If abnormal, then a 24 hour urine collection is warranted with measure of **creatinine clearance rate (eGFR) and or test of microalbumin/creatinine ratio;**
 - **Fasting plasma (blood) glucose (FPG/FBG)** unless already known diabetic. Normal result is <5.6 mmol/L; and
 - **Glycosylated hemoglobin (HbA1c)** test. Normal result is < 6.5%.
- Panel physicians must refer clients with abnormal results for additional evaluation by a nephrologist or internal medicine specialist.

Reporting

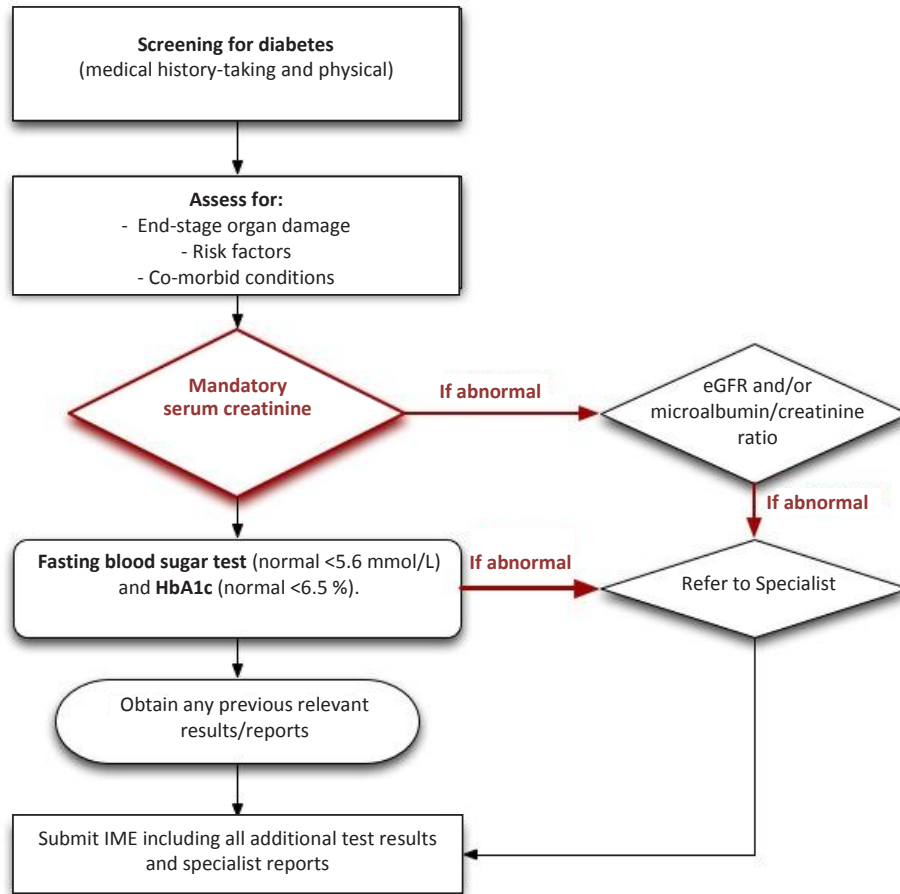
- All additional lab result reports must be attached to the IME report.
- Any specialist reports from previous specialized consultations should also be attached.

Grading

All IMEs for clients with diabetes must be graded B.

Diabetes

Algorithm



References

<http://www.diabetes.ca/files/cpg2008/cpg-2008.pdf>

<http://www.diabetes.ca/diabetes-and-you/what/at-risk/>

http://bodyandhealth.canada.com/channel_condition_info_details.asp?channel_id=1055&relation_id=17519&disease_id=244&page_no=1

HB Approval and Authority

Director General, NHQ, Health Branch, CIC

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