Subject
Instructions for screening clients at risk of hepatitis / liver 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 at risk of developing hepatitis / liver disease;
• further investigation of clients at risk of hepatitis / liver disease; and
• completion and grading of an IME for a client at risk of hepatitis / liver disease.

Instructions
Rationale
It is particularly important to assess the risk of hepatitis / liver disease as these conditions may pose a danger to Canadian public health as well as create a significant burden on Canadian medical services through the need for expensive medication and specialized treatment going as far as liver transplantation.

Screening and Testing
During the medical history-taking and physical examination, the PP is expected to be vigilant for the presence of a risk of hepatitis / liver diseases such as hepatitis B or C or liver cirrhosis. If an interpreter is used, the panel physician 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.

The identification of clients at risk of hepatitis / liver disease is based upon a careful review of risk factors and medical and surgical history as well as a review of symptoms and a physical examination.

Hepatitis B and C is endemic in many regions of the world from which CIC clients originate:

• hepatitis B is endemic in China, South East Asia, the Amazon, eastern and central Europe, Sub-saharan Africa, the Middle East and the Indian subcontinent.
• hepatitis C is endemic in Egypt, Pakistan, and China.

PPs must pay special attention during the IME for all clients that have risk factors for Hepatitis B and C, particularly those originating from the regions of high incidence of hepatitis mentioned above.
Hepatitis B and C testing is required regardless of age for clients with any of the following risk factors:

- substance use (includes sharing, drug snorting, smoking or injection equipment);
- high-risk sexual activity or sexual partner with viral hepatitis;
- household contact with an infected person especially if personal items (e.g., razors, toothbrushes, nail clippers) are shared;
- receiving of unscreened blood products (screening of donated blood products for hepatitis C began in 1990 in Canada);
- needle-stick injury or other occupational exposure (e.g., healthcare workers);
- children born to mothers with chronic hepatitis B or C infection;
- tattoos and body piercing;
- history of incarceration;
- HIV or other sexually transmitted infection; and
- haemodialysis.

Additional Investigation Required for ALL Clients

- All clients with any risk factor for hepatitis B or C must be investigated and tested for hepatitis B and C serology (HBsAg and HCV antibodies).
- All clients with history of hepatitis B or C / liver disease or signs / symptoms of liver disease must be investigated and tested for hepatitis B and C serology (HBsAg and HCV antibodies).
- All clients with active Tuberculosis (TB), and for HIV or syphilis positive serology, found during the IME, must be investigated and tested for hepatitis B and C serology (HBsAg and HCV antibodies).
- For all clients found to have positive serology for hepatitis B or C, we also require testing for liver enzyme ALT and referral to a gastroenterologist, liver specialist or an appropriate alternative specialist for assessment and determination of the prognosis and the requirement for treatment. Screening for HIV, if not already done, is also required regardless of age.
Hepatitis / liver disease

**Reporting**
- All available additional reports (liver function testing, hepatitis testing, specialist report, etc) must be attached to the IME report.
- Any specialist report that may be available from previous consultations should also be attached.

**Grading**
All IMEs for clients with hepatitis / liver disease must be graded B.

**Algorithm**

- PPs must be vigilant for liver disease / hepatitis (conduct an appropriate history-taking, review of risk factors and physical examination)
- All clients with active TB, or with HIV and/or Syphilis
- All clients with risk factors for hepatitis B or hepatitis C
- All clients with history of hepatitis B or C, or liver disease
- All clients with signs or symptoms of liver disease
- Screen for HIV if not already done, regardless of age.
- Liver Enzyme ALT and referral to gastroenterologist specialist
- Mandatory HBsAG and HepCAb
- Submit IME with reports attached

**References**
http://www.phsa.ca/AgenciesAndServices/Services/PHSA-Labs/About-PHSA-Labs/BCCDC-Public-Health-Microbiology-Lab.htm
Hepatitis / liver disease

HB Approval and Authority
Director General, NHQ, Health Branch, CIC

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