

Summary of recommendations for the prevention of viral hepatitis during travel

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Abstract

Viral hepatitis is considered the most common travel-related, vaccine-preventable disease. All non-immune travellers to developing countries should consider vaccination with inactivated Hepatitis A (HA) virus vaccine and recombinant Hepatitis B (HB) virus vaccine. Inactivated HA and recombinant HB vaccines are safe, have few side effects and are effective in providing long-lasting protection. All monovalent HA and HB vaccines available for use within Canada are equally effective, and each can be used interchangeably. HA Ig (immune globulin) should be used to prevent HA only in those for whom active HA vaccines are contraindicated, in immunocompromised individuals who may not respond adequately to the active vaccines or in infants less than one year of age. All travellers should practise routine protective measures when abroad. HB virus carriers travelling to Hepatitis D virus-endemic countries should be particularly vigilant in avoiding high-risk activities such as skin piercing and unsafe sexual practices.

Background

Hepatitis A is the most common travel-related illness for which there is an effective vaccine. [A map of countries and areas of risk for Hepatitis A \(HA\) virus and Hepatitis B \(HB\) virus](#) is available from the World Health Organization. Detailed information about HA and HB, including the epidemiology in Canada, available vaccines, recommendations for use in Canada and precautions and contraindications can be found in the [Canadian Immunization Guide](#). A full summary of the background of risks of HA and HB among travellers and recommendations are available in the Committee to Advise on Tropical Medicine (CATMAT)'s statement on hepatitis vaccines for travellers (1).

Prevention

Vaccine recommendations for Canadian travellers

Inactivated HA and recombinant HB vaccines are safe, have few side effects, and are effective in providing long-lasting protection (2,3). Both are considered safe in pregnancy and lactation (3,4). All monovalent HA and HB vaccines available for use within Canada are equally effective and each can be used interchangeably against its respective target virus (3,5).

All non-immune travellers to developing countries should consider vaccination with inactivated HA and recombinant HB vaccine (2,6-9).

Administration of HA vaccine up to the day of departure is considered efficacious and need not be accompanied by immune globulin (Ig) administration (10,11).

For travellers who have no or an incomplete history of HB vaccination, completion of a vaccination series is recommended before departure. One or two doses of HB vaccine administered before travel will still provide some protection and may initiate an HB vaccination series that can be completed after travel for those who cannot complete the full series before departure (1).

For travellers presenting less than 21 days before departure, monovalent HA and HB vaccines should be administered separately, with completion of both immunization series after travel (1).

Travellers already infected with Hepatitis C should receive HA and HB vaccines, if not already administered by their primary care provider (1).

HA, HB and HAHB vaccines may be administered concomitantly with other vaccines at different injection sites using separate needles and syringes (3).

Immune globulin

Vaccine is the preferred agent for pre-exposure prophylaxis for HA, therefore Ig should be used to prevent HA only in those for whom active HA vaccines are contraindicated, in immunocompromised individuals who may not respond adequately to the active vaccines or in infants under one year of age (1,3).

Co-administration of Ig and HA vaccine is not necessary (except possibly in immunocompromised individuals) and may result in an attenuated immune response to the HA vaccine (10,12,13).

There are no immunoglobulin preparations or effective vaccines available in Canada that provide protection against Hepatitis C, D or E virus (9,14-18).

For individuals with a high likelihood of prior exposure (e.g. long-term residence in a highly endemic region or history of a compatible illness) and for whom cost is a significant issue, it may be reasonable to assume immunity. It may be cost-effective to test adults who grew up in developing countries or Canadian-born adults born before 1945 for anti-HA IgG prior to travel, if time permits, and immunize only those susceptible (3,19,20).

Routine serology

Routine serologic testing after HA or HB vaccination is unnecessary except for HB among health care workers and immunocompromised travellers, who should confirm their seroprotection (3,21,22). Refer to the [Canadian Immunization Guide](#) for additional risk groups recommended to have pre-immunization serologic testing for HB.

Routine serologic testing of previously immunized travellers for anti-HBs (antibody to Hepatitis B surface antigen) IgG is not necessary unless they are health care workers who have never had their anti-HBs titres verified (3).

Personal protective measures

Travellers should be advised to do the following:

- Closely follow [food and water precautions](#) and wash their hands frequently to minimize the possibility of exposure to HA or Hepatitis E (23-25).
- Adopt safer sexual practices and avoid any voluntary skin piercing, such as tattooing, acupuncture and body piercings, to minimize the possibility of exposure to HB, Hepatitis C or Hepatitis D.
- Take great care when seeking medical or dental care requiring percutaneous or invasive procedures, to minimize the possibility of exposure to HB, Hepatitis C or Hepatitis D (1,21).

HB carriers travelling to Hepatitis D-endemic countries should be particularly vigilant in avoiding high-risk activities such as skin piercing and unsafe sexual practices (1).

Human immunoglobulin does not provide protection against Hepatitis C, Hepatitis D or Hepatitis E, and currently no vaccines targeting these infections are available.

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Conflict of interest

None declared.