

Infectious Diseases of Travelers: Protozoal and Helminthic Infections



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INTRODUCTION

Medical advice for overseas travelers, recommended protective measures, and the diagnosis and treatment of common parasitic diseases endemic in the United States and abroad are reviewed in this chapter.

PREPARATION OF TRAVELERS

More than 27 million Americans travel internationally every year, and more than 60% of them travel to developing regions of the world. Increases in international travel are associated with exposures to infectious diseases worldwide and bring the issues of prevention and management of health problems in travelers into the office of every physician. The risk of becoming ill while traveling internationally depends on the destination and duration of the trip, the underlying health and age of the traveler, and activities undertaken while abroad. Major issues to be addressed before traveling include required and recommended immunizations, malaria prophylaxis, and traveler's diarrhea, as well as measures to prevent tick and mosquito bites. Information about health risks in specific geographic areas, updated weekly, can be obtained from the Centers for Disease Control and Prevention (CDC) through its publications or website (www.cdc.gov/travel/destinations/list).

Immunizations

All international travelers should ensure they are up-to-date on routine vaccinations. Only yellow fever vaccination may be required by law for international travel, but other immunizations are often strongly recommended, depending on the destination, type, and duration of travel. Before immunization, a thorough history should be obtained to determine the safety of immunizations and any allergies to eggs or chick embryo cells. Pregnant women and individuals who are immunocompromised by human immunodeficiency virus (HIV), malignancy, or chemotherapy pose specific and important concerns requiring review before receiving vaccinations.

Hepatitis A

In the United States, the most frequently identified risk for hepatitis A infection is travel. The risk varies with living

conditions, length of stay, and incidence of hepatitis A in the area visited. In some areas, the disease affects an estimated 1 of every 500 to 1000 travelers on a 2- to 3-week trip. Therefore, hepatitis A vaccination is recommended for all susceptible persons traveling to or working in countries with intermediate or high endemicity of infection. Hepatitis A vaccine should be given at least 2 weeks before departure but remains effective if given up until the time of travel. A single dose provides protection for 1 to 2 years; a booster 6 to 18 months later is required for long-lasting immunity (at least 20 years and possibly lifelong).

Influenza

Although influenza is not necessarily considered a travel-related illness, the influenza vaccine should be considered in the panel of vaccines offered to the traveler. Influenza seasons can occur at different times of the year in different parts of the world. If a patient cannot be immunized, a course of the antiviral medication oseltamivir can be provided to take at the first sign of a flu-like illness.

Japanese Encephalitis

Japanese encephalitis (JE) virus is closely related to the West Nile and Saint Louis encephalitis viruses and is transmitted to humans through the bite of an infected mosquito. JE virus is the most common vaccine-preventable cause of encephalitis in Asia. It occurs throughout most of Asia and parts of the western Pacific. The overall incidence of JE among people from non-endemic countries traveling to Asia is estimated to be less than 1 case per 1 million travelers. However, expatriates and travelers who stay for prolonged periods in rural areas with active JE virus transmission are likely to be at similar risk as the susceptible resident population (i.e., 5 to 50 cases per 100,000 children per year). Even during brief trips, travelers might be at increased risk if they have extensive outdoor or nighttime exposure in rural areas during periods of active transmission. Short-term (<1 month) travelers whose visits are restricted to major urban areas are at minimal risk for JE. A new inactivated JE vaccine, a two-dose series given 28 days apart, was approved in 2009 for use in people 17 years of age and older; pediatric clinical trials are being conducted to enable its licensure for use in children.