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Foreign Travel Advisory

Diptheria Epidemics in Russia and Ukraine

The incidence of diptheria in creased dramatically from 1990 through 1992 in several areas of the former Soviet Union, including Russia and Ukraine. In Russia, the number of reported diptheria cases for 1992 was 3000 (a 10-fold increase), with approximately 1000 occurring in Moscow. Approximately 70% of the cases occurred in adults. Similar increases have been recorded in Ukraine, with 57 reported cases in 1989, 107 in 1990, 1075 in 1991, and 1108 through October 1992. The majority (79%) of 1992 cases were in persons age 15 years or older. Serosurveys suggest that at least half the adults in Russia and Ukraine are susceptible to diptheria.

Staff epidemiologists from the Centers for Disease Control and Prevention (CDC) are working with Russian and Ukrainian authorities to help them conduct an investigation of the epidemic and develop control strategies. Although proof of diptheria immunity is not required for international travel, the Immunization Practices Advisory Committee (ACIP) recommends that travelers to areas where diptheria is occurring be immunized.

Also in this issue:

RECOMMENDED IMMUNIZATION SCHEDULE

INFANT TO AGE 7:

Vaccine: diphtheria and tetanus toxoids, and pertussis vaccine (DPT) for most children; OR pediatric diphtheria and tetanus toxoids (DT) for children for whom pertussis vaccine is contraindicated.

Standard Immunization Schedule:

Dose #1	2 mos. of age
Dose #2	4 mos. of age
Dose #3	6 mos. of age
Dose #4	15 mos.
Booster	4-6 years of age

For infants traveling to areas where diphtheria is endemic or epidemic:

Dose #1	no sooner than four weeks of age (optimally 6-8 weeks)
Doses #2&3	at intervals of four to eight weeks.

OVER AGE 7:

Vaccine: Tetanus and Diptheria Toxoids, for adult use (Td)

Standard primary schedule:

Dose #1	As soon as possible
Dose #2	4-8 weeks after the first dose
Dose #3	6-12 months after the second dose.

Travelers rarely make their travel plans a year or more in advance, so following the recommended immunization schedule often will be impossible. If a person has

Continued ☞

Diptheria (continued from page 1)

never been immunized, a single dose of vaccine is of little benefit. However, two doses of Td received at intervals of at least 4 weeks may provide some protection. Persons for whom the primary schedule was interrupted should complete the rest of the series using age appropriate vaccine.

A Td booster should be given whenever 10 or more years have elapsed since completion of a primary series or the last diptheria tetanus toxoid-containing booster dose.

A Td booster should be given whenever 10 or more years have elapsed since completion of a primary series or the last diptheria tetanus toxoid-containing booster dose. Further details regarding ACIP recommendations for diptheria prevention are contained in MMWR 34:27, 1985, published by CDC.

References

1. January 21, 1993 memorandum sent to the CDC by Walter A. Ornstein, M.D., Director of Immunization, National Center for Prevention Services, Department of Health and Human Services.
2. January 31, 1991 Advisory Memorandum NO.97, Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, Atlanta, Georgia.

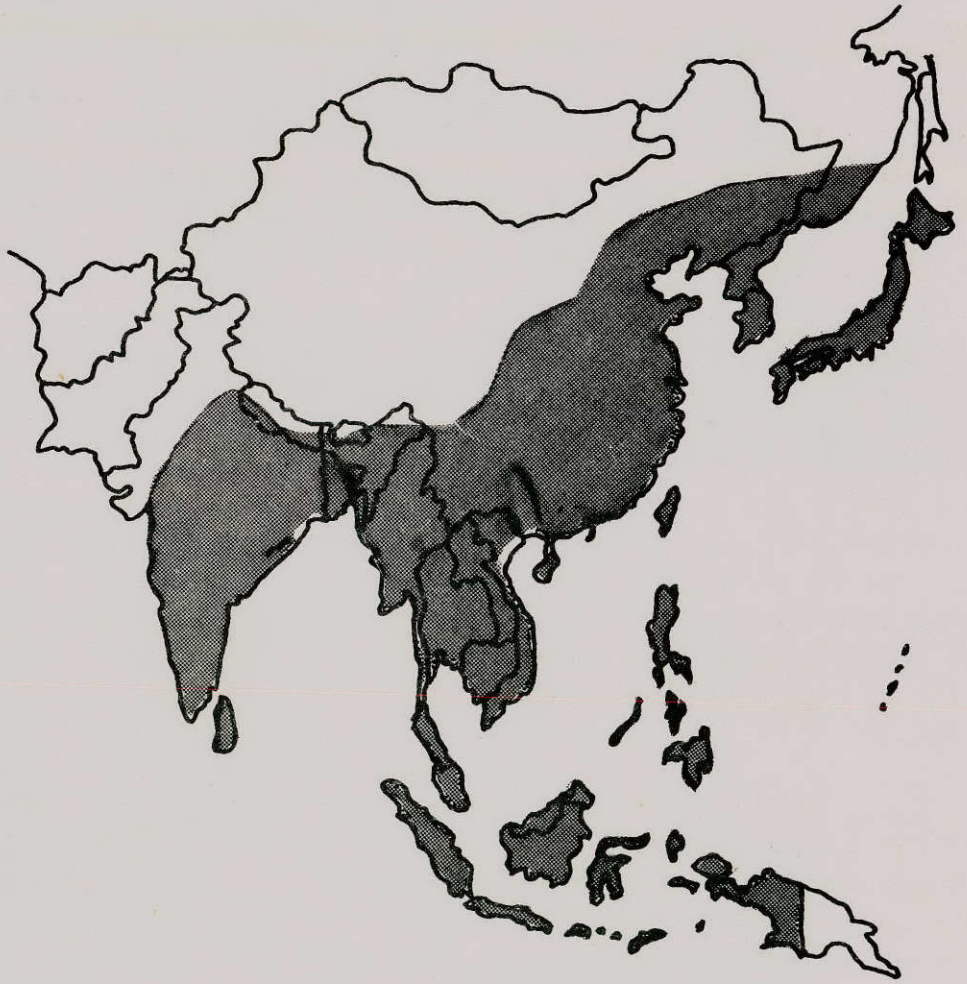


Figure 1. Reported Japanese encephalitis cases where viral transmission is proven or suspected 1986-1990

JAPANESE ENCEPHALITIS VACCINE FOR TRAVELERS

The leading cause of viral encephalitis in Asia is Japanese encephalitis (JE), a mosquito borne arboviral infection which is common in parts of Japan, other Pacific Islands, and the Far East (Figure 1). Approximately 50,000 sporadic and epidemic cases of JE are reported annually from the People's Republic of China (PRC), Korea, Japan, Southeast Asia, the Indian subcontinent, and parts of Oceania.

Japanese Encephalitis (continued from page 2)

For most travelers to Asia, risk for acquiring JE is highly variable and depends on factors such as the season, locations and duration of travel, and activities of the person. The principal factors contributing to the risk of disease are travel during the transmission season and mosquito exposure in rural areas, especially for extended periods of time. (Figure 2). The extent and nature of outdoor activity; use of protective clothing, bed nets and repellents; and lodging in air-conditioned or well-screened rooms are additional factors that affect exposure.

Residents of developed countries other than Japan usually have no natural immunity to JE virus and travelers of all ages are equally susceptible to infection with JE virus. The elderly, however, may be more susceptible to developing neuroinvasive disease. Therefore, certain travelers to endemic countries are advised to take precautions against mosquito bites and to obtain immunization against this potentially fatal disease.

JE vaccine is NOT recommended for *all* travelers to Asia. Only those who plan to spend a month or more in endemic areas or who will be involved in extensive outdoor activities for any length of time in rural endemic areas should be advised to receive the vaccine. The use of bed nets, insect repellents and protective clothing, and avoidance of outdoor activity will reduce risk.

While risk for most short-term travelers may be less than 1 per million, estimates suggest that risk of JE in highly endemic areas during the transmission season can reach 1 per 5,000 per month of exposure. Infection with this mosquito-borne virus leads to overt disease in only one of 200 cases. Illness usually is severe, however, resulting in fatal inflammation of the brain in 25 percent of cases and residual brain disorders in an additional 50 percent.

December 18, 1992, the Food and Drug Administration (FDA) announced the licensing of a vaccine against Japanese encephalitis (JE)In June 1992, FDA's Vaccines and Related Biological Products Advisory Committee, a panel of experts outside the agency, recommended approval of a new vaccine. An inactivated JE vaccine derived from infected mouse brain has been licensed in Japan since 1954. Clinical safety and immunogenicity trials of this new vaccine, done by the US Army, indicated a 91% efficacy rate with mild to moderate side effects. JE vaccine licensed in the United States is manufactured by the Research Foundation for Microbial Disease of Osaka, Japan (Biken). Connaught Laboratories, Inc., Swiftwater, PA, is the U.S. Distributor. The vaccine is sold as one 10 dose vial or as a package of five single dose vials. The Biken vaccine is the most widely used JE vaccine of its type.

For additional information regarding this product, contact Connaught Laboratories Inc. at 800-822-2463.

Figure 2. Risk of Japanese encephalitis by country, region, and season

Country	Affected areas/jurisdictions	Transmission season	Comments
Bangladesh	Few data, probably widespread	Possibly July-December as in northern India	Outbreak reported from Tangail district
Buhutan	No data	No data	Not applicable
Brunei	Presumed to be sporadic - endemic as in Malaysia	Presumed year-round transmission	
Burma	Presumed to be endemic - hyperendemic countrywide	Presumed to be May-October	Repeated outbreaks in Shan State in Chiang Mai Valley
Cambodia	Presumed to be endemic - hyperendemic countrywide	Presumed to be May-October	Refugee camp cases reported from Thai border
Hong Kong	Rare cases in new territories	April-October	Vaccine not routinely recommended
India	Reported cases from all states except Arunachai, Dadra, Daman, Diu, Gujarat, Himachal, Jammu, Kashmir, Kerala, Lakshadweep, Meghalaya, Nagar Haveli, Orissa, Punjab, Rajasthan and Sikkim	South India: May-October in Goa October-January in Tamil Nadu August-December in Karnataka; second peak (April-June in Mandya district) Andrha Pradesh: September-December North India: July-December	Outbreaks in West Bengal, Bihar, Karnataka, Tamil Nadu, Andrha Pradesh, Assam, Uttar Pradesh, Manipure and Goa Urban cases reported, e.g., Lucknow
Indonesia	Kalimantan, Java, Bali, Lombok, Nusa Tenggara, Sulawesi, Mollucas, and Irian Java	Probably year-round risk; varies by island; peak risks associated with rainfall, rice cultivation and presence of pigs; Novenber-March peak period of risk; June-July in some years	Human cases recognized on Bali and Java only
Japan*	Rare-sporadic cases on all islands, except Hokkaido	June-September except Ryukyu islands (Okinawa) April-October	Vaccine not routinely recommended for travel to Tokyo and other major cities. Enzootic transmission without human cases observed on Hokkaido
Korea	No data from North Korea; South Korea sporadic-endemic with occasional outbreaks	July-October	Last major outbreaks in 1982-1983

*Local JE incidence rates may not accurately reflect risks to nonimmune visitors because of high immunization rates in local populations. Humans are incidental to the transmission cycle. High levels of viral transmission may occur in the absence of human disease.
Note: Assessments are based on publications, surveillance reports, and personal correspondence. Extrapolations have been made from available data. Transmission patterns may change.

Risk of Japanese encephalitis by country, region, and season - continued

Country	Affected areas/jurisdictions	Transmission season	Comments
Laos	Presumed to be endemic-hyperendemic country wide	Presumed to be May-October	No data available
Malaysia	Sporadic-endemic in all states of Peninsula, Sarawak, and probably Sabah	No seasonal pattern; year-round transmission	Most cases from Penang, Perak, Selangor, Johore, and Sarawak
Nepal	Hyperendemic in southern lowland (Terai)	July-December	Vaccine recommended only for travelers visiting southern lowlands
People's Republic of China	Cases in all provinces except Xizang (Tibet), Xinjiang, Qinghai. Hyperendemic in southern China; endemic-periodically epidemic in temperate areas	Northern China: May-September Southern China: April-October (Guangshi, Yunnan, Gwangdong, and Southern Fujian, Szechuan, Guizhou, Hunan, Jiangsi provinces)	Vaccine not routinely recommended for travelers to urban areas only
Pakistan	May be transmitted in central deltas	Presumed to be June-January	Cases reported near Karachi, endemic areas overlap those for West Nile virus
Philippines	Presumed to be endemic on all islands	Uncertain, speculations based on locations and agroecosystems: West Luzon, Mindoro, Negro Palowan: April-November; Elsewhere: year-round - greatest risk April-January	Outbreaks described in Nueva Ecija, Luzon, and in Manila
Russia	Far eastern maritime areas south of Khabarousk	Peak period July-September	First human cases in 30 years recently reported
Singapore	Rare cases	Year-round transmission-April peak	Vaccine not routinely recommended
Sri Lanka	Endemic in all but mountainous areas; periodically epidemic in northern and central provinces	October-January; secondary peak of enzootic transmission May-June.	Recent outbreaks in central (Anuradhapura) and northwestern provinces
Taiwan*	Endemic, sporadic cases; island-wide	April-October, June peak	Cases reported in and around Taipei
Thailand	Hyperendemic in north; sporadic-endemic in south	May-October	Annual outbreaks in Chiang Mai Valley; sporadic cases in Bangkok suburbs
Vietnam	Endemic, hyperendemic in all provinces	May-October	Highest rates in and near Hanoi
Western Pacific	Two epidemics reported on Guam, Saipan (Northern Mariana Islands) since 1947.	Uncertain, possibly September-January	Enzootic cycle may not be sustainable; epidemics may follow introductions of virus

Lassa Fever in Nigeria

In February of this year representatives from CDC went to Nigeria to assist in an investigation of a Lassa Fever outbreak in Plateau State.

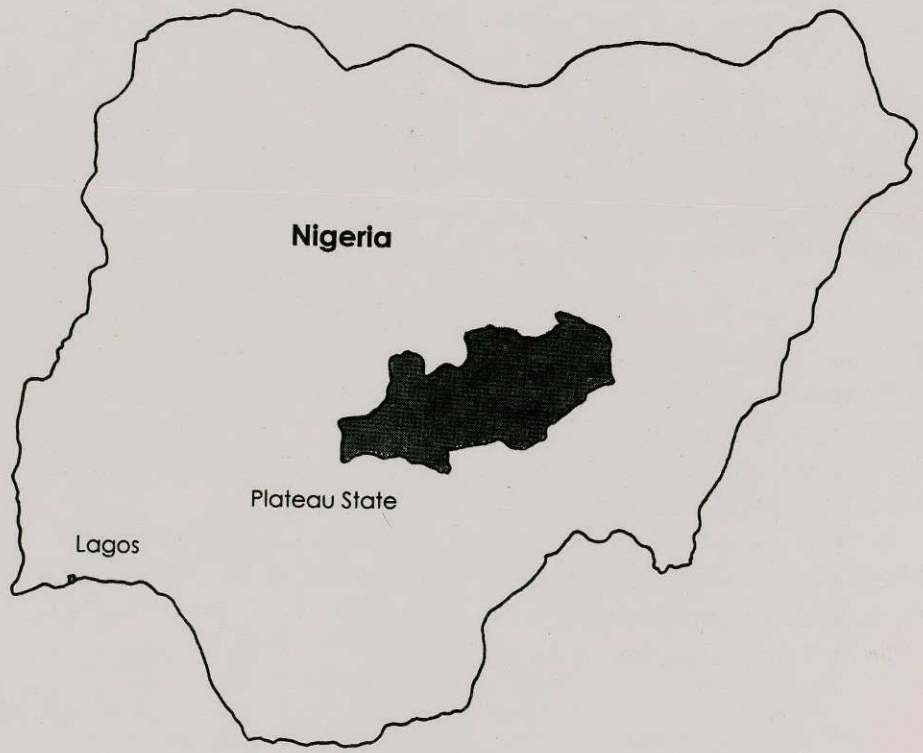
Based on population-based serologic studies, most Lassa virus infections in Africans are mild or subclinical. However, 5 to 10% of cases result in severe illness, and 15 to 25% of severe cases die. Pharyngitis, often purulent, is the most common presenting symptom. Other common symptoms on admission are vomiting (64%), chest pain (61%), proteinuria (58%), abdominal tenderness (45%), conjunctivitis (39%), and facial edema (23%).

Physicians should consider Lassa Fever in persons with these symptoms who have recently traveled through the Plateau State of Nigeria (Figure).

That some travel occurs between Texas and Nigeria is demonstrated by the fact that for 1990, 20 of the 80 imported malaria cases in Texas occurred among travelers returning from Nigeria.

Because nosocomial transmission has been a problem in the past, any patient suspected of having Lassa Fever should be placed in a negative pressure respiratory isolation room whenever possible. Staff should be provided with goggles and filter masks, and strict enteric precautions should be followed. Aerosols that may be created during clinical laboratory testing are considered to have been possible sources of laboratory acquired infection in past outbreaks. **The state health department should be notified immediately of any suspect case by calling (800) 252-8239.**

From CDC/NCID Focus, 1993; 3(4):1.



Lassa Fever outbreak in Plateau State of Nigeria

HEPATITIS E AMONG U.S. TRAVELERS, 1989-1992

Outbreaks of hepatitis E (HEV) have occurred in some parts of the world and generally have been related to contaminated water supplies. Until the recent development of serologic tests to identify HEV infection, diagnosis depended on a history of exposure in an appropriate epidemiologic setting and the exclusion of other causes of viral hepatitis. During 1989-1992 acute HEV infection was documented among six persons who had returned to the United States from traveling in other countries including Mexico.

The first documented outbreak of HEV occurred in New Delhi, India, in 1955, when 29,000 cases occurred following fecal contamination of the water supply. Outbreaks also have been confirmed in Africa and in several central Asian republics. The estimated numbers of persons affected in these outbreaks have ranged from fewer that 100 to 29,000. Recent reports from Sudan, Ethiopia, and Egypt have suggested that HEV infection may account for a substantial proportion of acute sporadic hepatitis among adults and children in these countries.

The confirmation of HEV infected persons in Mexico suggests that HEV infection may be more widespread, particularly along the United States-Mexico border. Endemic HEV transmission has not yet been documented in the United States. Although the sources of infection could not be established in the six cases mentioned above, these persons represent the first serologically documented cases of HEV infection among U.S. residents who have returned from travel abroad.

Hepatitis A is the most common cause of viral hepatitis among U.S. residents who travel abroad, and immune globulin prophylaxis is recommended for such travelers. However, prophylaxis with immune globulin from U.S. plasma sources is unlikely to prevent HEV infection, so travelers must diligently avoid food and water that is potentially contaminated with human feces.

HEV infection should be considered in any person who has the signs and symptoms of acute hepatitis; has traveled abroad; and is negative for serologic markers for hepatitis A, B, and C.

HEV infection should be considered in any person who has the signs and symptoms of acute hepatitis; has traveled abroad; and is negative for serologic markers for hepatitis A, B, and C. Health care professionals should obtain a detailed history regarding sources of drinking water, uncooked food, and contact with hepatitis from such persons. Health care professionals who require additional information concerning serologic testing of travelers returning to the U.S. with evidence of non-A, non-B, and non-C hepatitis should contact CDC's Hepatitis Branch, Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, (404) 639-3048.

From Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, January 15, 1993/Vol. 42/No.1

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YELLOW FEVER REPORTED IN KENYA

The Centers for Disease Control and Prevention have reported a yellow fever outbreak in Africa. The site of the outbreak in Kenya is Lake Baringo, located northeast of Kisumu near Lake Victoria. This outbreak was the first such occurrence of human cases in East Africa since 1966.

From Vector Ecology Newsletter, 1993, 23(4):4.