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State of Connecticut, Department of Public Health
Stephen A. Harriman, Commissioner

Viral Hepatitis Provider Guidelines

Health care providers can play a key role in decreasing the incidence of viral hepatitis through a variety of prevention strategies. The Connecticut Department of Public Health (DPH) encourages all clinical care providers to be aware of interventions designed to reduce transmission of hepatitis A, B, and C.

Hepatitis A

Hepatitis A virus (HAV) is predominately transmitted through the fecal-oral route by either person-to-person contact or ingestion of contaminated food or water. Nationally, the highest rates of infection are among children aged 5-14 years. In Connecticut, the highest rate is among males aged 20-39 years. The most important methods for preventing transmission involve adequate sanitation and personal hygiene (particularly among food handlers and persons who provide care to young children), and vaccination with a HAV vaccine. Two vaccines are available in the United States and have been shown to be highly effective in providing lasting protection against HAV infection.

Providers can minimize the potential for HAV spread by vaccinating all eligible persons against HAV prior to exposure, by appropriately managing household contacts of persons with hepatitis A, and by both confirming the diagnosis and reporting suspect cases to the local and state health departments.

In This Issue

National recommendations for the use of hepatitis A vaccine:

1. Preexposure vaccination of the following groups at increased risk of HAV infection or its consequences:
   - Travelers: including tourists, military personnel, missionaries, and others who work or study in countries that have high or intermediate endemicity of hepatitis A or travel to areas where sanitation is questionable;
   - Sexually active homosexual men;
   - Persons who use illicit drugs;
   - Persons who have occupational risk for infection, i.e. persons who work with HAV in a laboratory setting or work with HAV infected-primates;
   - Persons with chronic liver disease or who are awaiting or have received liver transplants;
   - Recipients of clotting factors;
   - Food handlers who work in areas where state and local health authorities or private employers

determine that such vaccination is cost effective.

2. Children (beginning at ≥ 2 years of age) living in communities that have intermediate or high rates of hepatitis A.

3. Postexposure prophylaxis of contacts.

4. Outbreak settings with the additional appropriate use of immunoglobulin.

5. Any person wishing to obtain immunity.

Additional state-based recommendations:

Hepatitis A infections in Connecticut have been increasing annually since 1994.

1. To prevent outbreaks of hepatitis A from infected food handlers, DPH strongly encourages pre-employment vaccination of all food handlers including bartenders.

2. Several states (not Connecticut) with particularly high rates of hepatitis A are implementing requirements for hepatitis vaccination of children prior to day care and/or school entry.

Hepatitis B

Hepatitis B is transmitted primarily through percutaneous or permucosal routes and perinatally from mother to child. This includes sexual contact and, in households and other settings involving close personal contact, presumably via inapparent or unnoticed contact with secretions, skin lesions, or mucosal surfaces. Prevention strategies include the following: screening all pregnant women for hepatitis B surface antigen (HBsAg) and providing hepatitis B immunoglobulin (HBIG) and vaccine to their infants; routine immunization for all infants; catch-up immunization for all children and adolescents; and intensified efforts to vaccinate adults in high-risk groups.

Providers can minimize the potential for hepatitis B spread by vaccinating all eligible persons against hepatitis B prior to exposure, by appropriately managing household contacts of HBsAg positive persons, and by both confirming the diagnosis and reporting suspect cases, especially in pregnant women, to the local and state health departments.

National recommendations for the use of hepatitis B vaccine:

1. Prevention of perinatal transmission:
   - All pregnant women should be routinely tested for HBsAg during prenatal care for each pregnancy.
   - All newborns of HBsAg-positive mothers should receive their first dose of hepatitis B vaccine within 12 hours of birth, concurrently with HBIG. Doses 2 and 3 should be given at 1-2 months and 6 months of age respectively.

2. Routine vaccination of all infants and adolescents

3. Preexposure vaccination of persons at risk of HBV infection including:
   - Persons with an occupational risk of exposure to percutaneous or permucosal exposure to blood or blood products including health care workers, public-safety workers, staff who work closely in institutional environments where risk of blood exposure is increased;
   - Residents of institutions for developmentally disabled persons;
   - Hemodialysis patients;
   - Sexually active homosexual men;
   - Persons who use illicit injectable drugs;
   - Recipients of clotting factors;
   - Persons from areas and countries of high HBV endemicity;

- Inmates of long-term correctional facilities;
- Sexually active heterosexuals with multiple sexual partners in the previous 6 months;
- Persons recently diagnosed with a sexually transmitted disease;
- International travelers who plan to reside for more than 6 months in areas with high levels of endemic HBV and who will have close contact with the local population;
- All children and adolescents as part of a catch-up program to more rapidly achieve universal protection against hepatitis B;
- Household or residential contacts, close casual contacts and sexual partners of HBV carriers (HBsAg positive for six months or longer);
- Members of households with adoptees who are HBsAg positive.

4. Postexposure vaccination:
   - Accidental percutaneous or permucosal exposure to blood;
   - Sexual exposure to HBsAg carrier.

Additional state-based recommendations:

In Connecticut, hepatitis B vaccination is required for daycare and school entry for all children born on or after January 1, 1994. In addition, it is anticipated that vaccination of seventh and eighth grade entrants will be required beginning August 2000.

Hepatitis C

Hepatitis C virus (HCV) is predominately transmitted by parenteral exposure to blood and blood products from HCV-infected persons. At this time there is no effective vaccination against HCV. However, patients with chronic HCV infection can be treated with interferon therapy and 25-40% will have a sustained response. New therapeutic regimens will likely be available in the near future.

Recommendations for hepatitis C screening:

1. Health-care providers are encouraged to assess the risk status of patients and to screen those at high risk including:
   - Persons who received blood or blood products prior to 1992;
   - Persons who have a history of injection drug use;
   - Persons who are spouses or household contacts of HCV-infected persons.

Recommendations for persons infected with hepatitis C:

2. Most persons (>80%) with antibody to HCV are chronically infected with the virus. They should be counseled to:
   - Abstain from alcohol use;
   - Receive hepatitis A and B vaccines;
   - Refrain from donating blood, organs, tissues or semen;
   - Use safe sexual practices;
   - Avoid sharing razors and toothbrushes;
   - Cover open wounds;
   - Dispose injection needles using universal precaution techniques;
   - Have additional evaluation to determine whether or not they are candidates for interferon therapy (or other treatment regimens as available).

For additional information about hepatitis A, B, or C, contact the Epidemiology Program at (860) 509-7994.

[Adapted from the Minnesota Department of Health, Disease Control Newsletter, April 1998, Volume 26, Number 3 pgs. .21-22]

INFLUENZA TESTING

Isolation and identification of circulating influenza virus strains is an important part of Connecticut's influenza surveillance system. The Connecticut Department of Public Health encourages physicians to submit throat swabs for virus isolation to the Department's Virology Laboratory from patients with a typical influenza syndrome (abrupt onset of fever, myalgia, and cough). Specimens should be collected no later than 3 days after onset of symptoms and sent immediately to the Virology Laboratory on wet ice, if possible.

Throat swab kits (VRCs) may be obtained from the State laboratory (860-509-8501). Throat swabs submitted by a health care provider for influenza will be exempt from fees effective October 1, 1998 through March 31, 1999. To be eligible for the fee exemption, the health care provider must specify "**FLU STUDY**" in Section #1 of the Virology request form. All requested information on the form should be provided as well. *For questions on specimen collection and submission, call the Virology Laboratory in Hartford at (860) 509-8553*

For Public Health Emergencies

after 4:30 P.M.
and on weekends
Call
The Department of Public Health
At

(860) 509-8000

Excellence in Curriculum Integration through Teaching Epidemiology (EXCITE):

EXCITE is a collection of teaching materials which can be used in a wide variety of classroom situations to impart to students an understanding of the principles of the science of epidemiology.

To access the site, go to: <www.cdc.gov/global>

and then click on the red apple icon ("For Teachers Only") — proceed by clicking on "Head to Homeroom."

The seven sections of this web site are built around a case study format based on an actual outbreak; this case study method facilitates discovery of the principles of the scientific method as used by public health professionals of the Centers for Disease Control and Prevention (CDC).

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