NH Division of Public Health Services (DPHS) recommends:

- Awareness that a New Hampshire food service worker has been confirmed to have hepatitis A virus infection and that unvaccinated, exposed restaurant patrons are advised to receive either hepatitis A vaccine or immune globulin according to the enclosed guidelines.

- Awareness that DHHS will conduct public clinics to administer the vaccine or immune globulin to exposed patrons. Clinics will be held on Friday, August 9, 2013, from 12 noon to 8 p.m. and Saturday, August 10, 2013, from 9 a.m. to 2 p.m., both at Hopkinton High School located at 297 Park Avenue in Contoocook, NH.

- Exposed patrons who develop symptoms consistent with hepatitis A virus infection be evaluated by their primary care physician.

- Report suspected and confirmed cases of hepatitis A virus infection to the Bureau of Infectious Disease Control at 603-271-4496 (after hours 1-800-852-3345 ext. 5300).

Background:
The NH DPHS Bureau of Infectious Disease Control has received report of a confirmed case of hepatitis A virus (HAV) infection in a New Hampshire food service worker. A public health assessment of the employee’s illness and food and beverage preparation practices in the establishments has determined that restaurant patrons may be at risk for HAV infection. NH DPHS is therefore recommending administration of post-exposure prophylaxis to certain patrons according to the guidelines below.

Worldwide, HAV is commonly transmitted through person-to-person contact via the fecal-oral route (i.e., ingestion of something that has been contaminated with the feces of an infected person). In the United States, however, most HAV infections result from close personal contact with an infected household.
member or sex partner. Transmission of HAV is less commonly associated with exposure to fecally contaminated food or water.

In New Hampshire, HAV cases have declined over the last 10 years, possibly from routine administration of hepatitis A vaccine to children. In the late 1990’s and early 2000’s, approximately 20 cases of HAV infection were reported each year. In 2005, 82 cases were reported, due to an outbreak among illicit drug users. Since 2009, fewer than 10 cases have been reported each year. HAV-infection in food service workers is rare in New Hampshire, with the last case requiring public notification and mass prophylaxis occurring in 2004.

**Diagnosis and Laboratory Testing:**
The clinical case definition for acute viral hepatitis is 1) discrete onset of symptoms; and, 2) jaundice or elevated serum aminotransferase levels. Because the clinical characteristics are the same for all types of acute viral hepatitis, Hepatitis A diagnosis must be confirmed by a positive serologic test for immunoglobulin M (IgM) antibody to Hepatitis A virus.

Some infected persons, particularly young children, may be asymptomatic. In children aged <6 years, 70% of infections are asymptomatic. When symptoms are present, they usually occur abruptly and can include fever, fatigue, nausea, vomiting, joint pain, and jaundice (yellowing of the eyes and skin), dark urine, clay-colored bowel movements. When illness occurs in children < 6 years, it is typically not accompanied by jaundice. Among older children and adults, infection is typically symptomatic, with jaundice occurring in >70% of patients.

The average incubation period (time from exposure to onset of illness) for HAV is 28 days (range: 15–50 days). A person with HAV is generally infectious for up to two weeks prior to symptom onset and for one week afterward.

Testing for HAV antibody response is available at most commercial laboratories. Serologic testing for IgM antibody to HAV (IgM anti-HAV) is required to confirm a diagnosis of acute HAV infection. In the majority of persons, serum IgM anti-HAV becomes detectable 5-10 days before onset of symptoms. IgG anti-HAV, which appears early in the course of infection, remains detectable for the person's lifetime and provides lifelong protection against the disease. In the majority of patients, IgM anti-HAV declines to undetectable levels 6 months after infection (23).

The New Hampshire Public Health Laboratories (NH PHL) offers HAV total antibody (Anti-HAV) and IgM testing. For testing at the NH PHL, required specimens are 3-4 mls of serum or plasma (ideally 2 SST tubes). Specimens may be refrigerated at 2-8°C for up to 5 days prior to transport on ice. For longer storage, serum or plasma (separated from whole blood by centrifugation at 2000 rpm for 10 minutes) may be frozen at -20°C or below prior to transport on ice. All specimens require a completed PHL requisition form available at: [http://www.dhhs.nh.gov/dphs/lab/documents/labrequisition.pdf](http://www.dhhs.nh.gov/dphs/lab/documents/labrequisition.pdf)

**Pre-Exposure Vaccination**
Vaccination with the full, two-dose series of hepatitis A vaccine before exposure to disease is the best way to prevent HAV infection. Hepatitis A vaccine has been licensed in the United States for use in persons 12 months of age and older. The vaccine is recommended for persons who are more likely to get HAV infection or are more likely to get seriously ill if they get Hepatitis A, and for any person wishing to obtain immunity. A list of persons specifically recommended for vaccine is available at: [http://www.cdc.gov/hepatitis/HAV/HAVfaq.htm](http://www.cdc.gov/hepatitis/HAV/HAVfaq.htm).

**Post-Exposure Prophylaxis**
Persons who have been exposed to HAV and who previously have not received hepatitis A vaccine should be administered a single dose of single-antigen vaccine or immune globulin (IG) (0.02 mL/kg) as soon as possible, within 2 weeks after exposure. The efficacy of IG or vaccine when administered >2
weeks after exposure has not been established. For healthy persons aged 12 months-40 years, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred to IG because of vaccine advantages that include long-term protection and ease of administration. For persons aged >40 years, IG is preferred because of the absence of information regarding vaccine performance and the more severe manifestations of hepatitis A in this age group; vaccine can be used if IG cannot be obtained. IG should be used for children aged <12 months, immunocompromised persons, persons who have had chronic liver disease diagnosed, and persons for whom vaccine is contraindicated. For persons who receive vaccine, the second dose should be administered according to the licensed schedule to complete the series.

For Healthcare Providers Evaluating Exposed Persons
NH DPHS is currently recommending that any person who consumed foods or beverages from July 20, 2013 through August 3, 2013 at the American Legion in Contoocook, NH or the Covered Bridge Restaurant in Contoocook, NH receive a single dose of single-antigen vaccine or IG (0.02 mL/kg) as soon as possible. See the attached prophylaxis guidelines.

NH DPHS in conjunction with the Capital Area Public Health Network will be offering hepatitis A vaccine and IG at public clinics on the following dates and locations:

- Friday, August 9, 2013, from 12 noon to 8:00 p.m. at Hopkinton High School located at 297 Park Avenue in Contoocook, NH
- Saturday, August 10, 2013, from 9 a.m. to 2 p.m. at Hopkinton High School located at 297 Park Avenue in Contoocook, NH

Exposed persons may choose to receive prophylaxis at their primary care provider or at one of the public clinics.

Additionally, exposed persons should be aware of the symptoms of HAV infection, monitor for symptoms for up to 50 days following his or her exposure, and seek medical evaluation if symptoms develop (see Diagnosis and Laboratory Testing above).

NH DPHS has established a public information line for exposed persons to call for additional information. This number is 1-800-562-8236.

For additional information on Hepatitis A Virus please refer to:

1. NH DHHS website: http://www.dhhs.nh.gov/
2. The Centers for Disease Control and Prevention, Hepatitis A FAQs for Health Professionals: http://www.cdc.gov/hepatitis/HAV/HAVfaq.htm

If you or other health care providers have questions, please call the Bureau of Infectious Disease Control at 603-271-4496 or 1-800-852-3345, extension 4496 during business hours (8:00 AM to 4:30 AM). Nights or weekends call the New Hampshire Hospital switchboard at 1-800-852-3345 extension 5300 and request the Public Health Professional on-call.

For any questions regarding the contents of this message, please contact NH DHHS Bureau of Infectious Disease Control at 603-271-4496 (after hours 1-800-852-3345 ext. 5300).

Attachments:
1) Hepatitis A Prophylaxis Guidelines
2) Hepatitis A Fact Sheet
DEFINITION OF TERMS AND ALERTING VOCABULARY

Message Type
- Alert: Original alert
- Update: Prior alert has been updated and superseded
- Cancel: Prior alert has been cancelled
- Error: Prior alert has been retracted

Status
- Actual: Refers to a live event
- Exercise: Designated recipients must respond to the communication or alert
- Test: Related to a technical and/or system test

Severity
- Extreme: Extraordinary threat to life or property
- Severe: Significant threat to life or property
- Moderate: Possible threat to life or property
- Minor: Minimal threat to life or property
- Unknown: Unknown threat to life or property

Sensitive
- Sensitive: Indicates the alert contains sensitive content
- Not Sensitive: Indicates non-sensitive content

Message Identifier
A unique alert identifier that is generated upon alert activation

Delivery Time
Indicates the time frame for the delivery of the alert

Acknowledgement
Indicates whether an acknowledgement on the part of the recipient is required to confirm that the alert was received, and the time frame in which a response is required.

Originating Agency
A guaranteed unique identifier for the agency originating the alert.

Alerting Program
The program sending the alert or engaging in alerts and communications using PHIN Communication and Alerting (PCA) as a vehicle for their delivery.

You have received this message based upon the information contained within our emergency notification database.

If you have a different or additional e-mail or fax address that you would prefer to be used, please contact:

Denise M. Krol, MS  
NH HAN Coordinator  
Denise.Krol@dhhs.state.nh.us

Business Hours: 8:00 AM – 4:00 PM
Tel: 603-271-4596  
Fax: 603-271-0545
New Hampshire Division of Public Health Services
Hepatitis A Prophylaxis Guidelines
August 7, 2013

Post Exposure Prophylaxis Recommendations:

Persons who recently have been exposed to HAV and who previously have not received hepatitis A vaccine should be administered a single dose of single-antigen vaccine or immune globulin (IG) (0.02 mL/kg) as soon as possible, within 2 weeks after exposure. The efficacy of IG or vaccine when administered >2 weeks after exposure has not been established.

- For healthy persons aged 12 months-40 years, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred to IG because of vaccine advantages that include long-term protection and ease of administration.
- For persons aged >40 years, IG is preferred because of the absence of information regarding vaccine performance and the more severe manifestations of hepatitis A in this age group; vaccine can be used if IG cannot be obtained.
- For children aged <12 months, immunocompromised persons, persons who have had chronic liver disease diagnosed, and persons for whom vaccine is contraindicated, IG should be used.

Immune Globulin:

Administer a single dose of immune globulin (IG) (0.02 mL/kg). Vaccine can be used if IG cannot be obtained.

Hepatitis A Vaccine:

Two single-antigen Hepatitis A vaccines, HAVRIX® (manufactured by GlaxoSmithKline) and VAQTA® (manufactured by Merck & Co., Inc), are currently licensed in the United States. Both are inactivated vaccines.

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<th>Licensed dosages and schedules for HAVRIX ® ¹</th>
<th>Age</th>
<th>Dose (ELISA units) ²</th>
<th>Volume (mL)</th>
<th>No. of doses</th>
<th>Schedule (mos) ³</th>
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<td>720</td>
<td>0.5</td>
<td>2</td>
<td>0, 6-12</td>
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<td>≥19 years</td>
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<td>2</td>
<td>0, 6-12</td>
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¹Hepatitis A vaccine, inactivated, GlaxoSmithKline.
²Enzyme-linked immunosorbent assay units.
³0 months represents timing of the initial dose; subsequent numbers represent months after the initial dose.

<table>
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<th>Licensed dosages and schedules for VAQTA ®</th>
<th>Age</th>
<th>Dose (U.) ²</th>
<th>Volume (mL)</th>
<th>No. of doses</th>
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<td>≥19 years</td>
<td>50</td>
<td>1.0</td>
<td>2</td>
<td>0, 6-18</td>
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</tbody>
</table>

¹Hepatitis A vaccine, inactivated, Merck & Co., Inc.
²Units.
³0 months represents timing of the initial dose; subsequent numbers represent months after the initial dose.
Fact Sheet

Hepatitis A

What is Hepatitis A?
Hepatitis A is a contagious liver disease caused by infection with the Hepatitis A virus (HAV).

How is the Hepatitis A virus transmitted?
The Hepatitis A virus is spread from person to person by putting something in the mouth that has been contaminated with the stool of a person with Hepatitis A. This type of transmission is called “fecal-oral.” For this reason, the virus is more easily spread in areas where there are poor sanitary conditions or where good personal hygiene is not observed. Most infections result from contact with a household member or sex partner who has Hepatitis A. Casual contact, such as in the office, factory, or school setting, does not spread the virus. In the United States, Hepatitis A is less commonly associated with exposure to fecally contaminated food or water. The average incubation period (the time from exposure to the virus to the onset of symptoms) for Hepatitis A is 28 days, with a range of 15-50 days.

What are the symptoms of Hepatitis A?
People infected with Hepatitis A may not have any signs or symptoms of the disease. Older persons are more likely to have symptoms than children. If symptoms are present, they usually occur abruptly and may include fever, tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, clay-colored bowel movements, and jaundice (yellowing of the skin and eyes).

Is there a cure for Hepatitis A?
While there is no specific treatment for Hepatitis A except supportive care, symptoms usually last less than 2 months; a few persons are ill for as long as 6 months.

How would I find out if I have Hepatitis A?
Talk to your doctor or someone from your local health department if you suspect that you may have Hepatitis A or any type of viral hepatitis. Because the symptoms of Hepatitis A are the same for all types of hepatitis, Hepatitis A diagnosis must be confirmed by blood test.

How can I prevent transmitting Hepatitis A?
The most important way to prevent transmitting Hepatitis A (and many other infections) is to always wash your hands after using the bathroom, after changing a diaper, or before preparing or eating any food. A person with Hepatitis A is generally infectious for up to two weeks prior to symptom onset and for one week afterward.

Is there a vaccine for Hepatitis A?
The Hepatitis A vaccine has been licensed in the U.S. for use in people 1 year of age or older. The vaccine is recommended (before exposure to the Hepatitis A virus) for all children at age 1 year, for persons who are more likely to get Hepatitis A virus infection
or who are more likely to get seriously ill if they do get Hepatitis A, and for any person wishing to obtain immunity. For persons who have already been exposed to the Hepatitis A virus, vaccine or immune globulin, a preparation of antibodies, can be given. It must be administered within 2 weeks of exposure to Hepatitis A for maximum protection. Immune globulin can also be given before exposure for short-term protection against Hepatitis A.

Who should be vaccinated against Hepatitis A?
Hepatitis A vaccination provides protection before a person is exposed to the virus. It is recommended for the following groups:

- All children at age 1 year (i.e., 12–23 months).
- Children and adolescents ages 2–18 who live in states or communities where routine Hepatitis A vaccination has been implemented because of high disease incidence.
- Persons traveling to or working in countries that have high or intermediate rates of Hepatitis A.
- Men who have sex with men.
- Users of illegal injection and noninjection drugs.
- Persons who have occupational risk for infection.
- Persons who have chronic liver disease.
- Persons who have clotting-factor disorders.
- Household members and other close personal contacts of adopted children newly arriving from countries with high or intermediate Hepatitis A endemicity.

Should all food service and healthcare workers be vaccinated for Hepatitis A prior to working?
No. Although persons who work as food handlers have a critical role in common-source foodborne outbreaks, they are not at increased risk for Hepatitis A because of their occupation. Health care workers are not at increased risk for Hepatitis A. If a patient with Hepatitis A is admitted to a hospital, routine infection control precautions will prevent transmission to hospital staff. If infection control precautions were not followed, the healthcare worker may be recommended to receive immune globulin or vaccine.

After someone has had Hepatitis A are they immune?
Yes. Someone who has recovered from Hepatitis A cannot get it again.

For specific concerns about Hepatitis A, call the New Hampshire Department of Health and Human Services, Bureau of Communicable Disease Control at 603-271-4496 or 800-852-3345 x4496. For further information, refer to the Centers for Disease Control and Prevention website at www.cdc.gov or the New Hampshire Department of Health and Human Services website at www.dhhs.nh.gov.