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Hepatitis A Continues Rural Spread

In early July 1992, a 7-year-old child from Arizona arrived in Northway. On August 3, after the 7-year old developed jaundice and abdominal pain, acute hepatitis A was serologically diagnosed (i.e., anti-HAV IgM positive). A sibling in Arizona had been diagnosed with hepatitis A on July 4.

From August to October, additional cases of hepatitis A occurred in Northway (10), Glennallen (2) and Mentasta (1). Four of the Northway cases, and the Glennallen and Mentasta cases had direct contact with the child from Arizona during the time the child was infectious.

Because routine provision of immune globulin (IG) to household contacts of the initial cases was not successful in preventing further transmission, the Section of Epidemiology conducted an investigation. During the week of October 26, we interviewed 193 Northway and Tanacross residents and obtained blood samples for hepatitis A antibody testing.

Results:

Of 187 residents tested for hepatitis A, 129 were found to be susceptible, 50 were immune, and 14 had recent infection (Figure 1). All those found susceptible were less than 50 years old. The majority of those immune to hepatitis A were 40 years or older. All individuals recently infected with hepatitis A were Northway residents less than 40 years old.

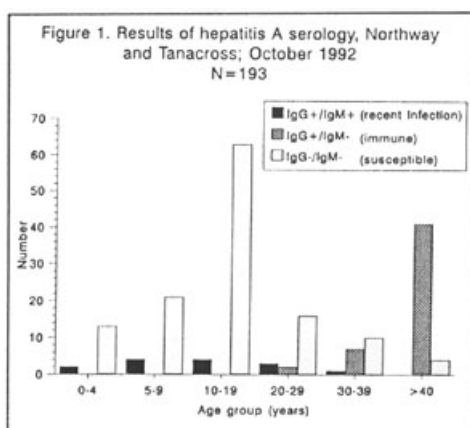
During November, eight additional cases occurred in residents of the following communities: Northway (2), Mentasta (1), Tetlin (1), Tok (2), Fairbanks (1), and Nenana (1). All eight cases were contacts of previously confirmed cases.

Several factors have contributed to the continuation of this outbreak:

- Contacts of asymptomatic children with acute hepatitis A cannot be identified and therefore cannot be given IG.
- Health-care providers have been unable to identify and provide IG to all household contacts of known cases.
- IG could not always be administered to contacts during the appropriate timeframe.
- Because some cases were not identified immediately after onset of illness, more than 2 weeks elapsed between illness onset and the time IG was administered.

Recommendations:

1. IG can be provided to household contacts of a probable case related to this outbreak. A probable case is a person with hepatitis-like illness and either jaundice or bilirubinuria. Household contacts include all persons who during the 2 weeks prior to illness onset slept in the same residence or ate more than one meal per week with a probable case. IG is only effective if administered within 14 days of exposure.
2. Extensive experience from major outbreaks of hepatitis A in rural Alaska during 1972-77 and 1987-89 showed that IG was not effective in stopping outbreaks. Health-care providers need to use clinical judgment concerning the potential benefits, if any, of offering IG to contacts of hepatitis A cases. These decisions must be based on numbers of individuals affected in a particular village, age of those affected and available resources.
3. During an extended outbreak such as this, individuals with hepatitis-like illness and contact with another confirmed case do not absolutely require blood testing. Individuals who were tested in October and identified as susceptible to hepatitis A do not need to be re-tested. No special trips by PHNs or MDs should be made for the purpose of obtaining additional blood samples to confirm the diagnosis of hepatitis A.
4. Hepatitis A is spread by the fecal-oral route. The virus is shed in the stool (feces) of an infected person and must be swallowed by another person for transmission to occur. Frequent and thorough handwashing prevents transmission of hepatitis A. Community activities such as sporting events, social gatherings, and school activities should not be stopped because of hepatitis A.



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