For Health Professionals

Health Alerts

Health Alert Advisory #138 - Acute Parotitis Confirmed As Mumps - August 18, 2005

The New York State Department of Health (NYSDOH) is supplying this update to providers, hospitals, and local health departments to provide current information on the mumps outbreak at a residential camp in Sullivan County:

- Mumps disease has now been confirmed by serology at the Centers for Disease Control and Prevention (CDC) laboratory in 5 of the 6 submitted specimens.
- The index case was a counselor from England where a large mumps outbreak is occurring. Similar camp outbreaks have occurred in Massachusetts and Maine.
- The NYSDOH and Sullivan County Department of Health have completed the review of immunization records of campers and counselors. MMR vaccine has been provided to those individuals who were not fully immunized.
- Clinicians should continue to consider mumps disease among clinically compatible cases, especially individuals who have traveled from foreign countries, who have been to a summer camp that employs counselors from abroad, or who are their close contacts.
- The total number of confirmed and probable cases is now 31. The two most recent cases were in a US born camper and counselor who each had 2 doses of MMR administered after 12 months of age.

BACKGROUND:

The New York State Department of Health (NYSDOH) has received reports of 31 cases of acute parotitis occurring among counselors and campers at a residential summer camp in Sullivan County. On 6/30/05 a 20 year old unimmunized counselor from England developed left sided parotitis. Specimens submitted to the CDC Laboratory have confirmed mumps disease.

CLINICAL PRESENTATION:

The index case developed symptoms on 6/30/05 and a camper developed right sided parotitis on 7/15/05. To date 23 cases have presented with unilateral parotitis and 8 have had bilateral parotitis. Twelve individuals developed fever over 101 degrees Fahrenheit. Four males developed testicular tenderness, and 2 of those males were admitted to a hospital with a testicular infection. Among the 19 counselors affected, 14 are from Australia, the United Kingdom, or Germany. The campers originated mainly from New York State, though some are from other states.

INFECTION CONTROL:

The NYSDOH is working closely with the camp, Sullivan County Department of Health (SCDOH), and the CDC to ensure that the disease is diagnosed and that spread is curtailed. For those children who have already left camp, the health departments of their home counties and

their states have been notified about the campers' potential exposure. In addition, other camps that have been visited by or visited campers at the affected camp are being notified.

At the camp those campers and counselors who are ill are being cohorted and kept from contact with the rest of the camp until 9 days after the onset of symptoms. The NYSDOH and SCDOH have completed reviewing immunization records of campers and counselors, and vaccine was given to all those who were not fully immunized.

REPORTING DETAILS:

Providers should increase their index of suspicion for mumps in clinically compatible cases that have been to a summer camp that employs counselors from abroad. The United Kingdom has reported over 40,000 cases of mumps in 2005 so far. Similar outbreaks of confirmed mumps cases have occurred in camps in Massachusetts and Maine. The local health department should be notified of any suspect case immediately.

It is important to obtain a camp history and a travel history from the patient and family members, as well as all close contacts. The patient and family should be educated about mumps, and the affected person should be advised to remain isolated until a definitive diagnosis is made.

MUMPS EPIDEMIOLOGY:

Mumps is an acute viral illness characterized by a non-specific prodrome of myalgia, anorexia, malaise, headache, and low-grade fever. Parotitis is the most common manifestation, and occurs in 30-40% of infected persons. Parotitis may be unilateral or bilateral and any combination of single or multiple salivary glands may be affected. Parotitis tends to occur within the first 2 days of illness and may first be noted as earache or tenderness on palpation of the angle of the jaw. Symptoms tend to decrease after 1 week and have usually resolved within 10 days. Mumps may also be accompanied by central nervous system involvement including encephalitis (less than 2 per 100,000 cases) or aseptic menigitis; orchitis (testicular inflammation) in up to 50% of post pubertal males; oophoritis (ovarian inflammation) in 5% of post pubertal females; pancreatitis; deafness; and myocarditis. Approximately 50% of those with orchitis have some degree of testicular atrophy, but sterility is rare. There is no relationship between oophoritis and impaired fertility. There is an association between mumps acquired during pregnancy and fetal death, however there is no clear association with congenital malformations. The incubation period of 3 mumps is 14 to 18 days, with a range of 14 to 25 days. The infectious period is considered to be from 3 days before to 9 days after the onset of parotitis.

The diagnosis of mumps is usually suspected based on clinical manifestations, in particular the presence of parotitis. Though other viruses can cause parotitis, in an outbreak setting the cause is almost always mumps. Serology is the most common method used to diagnose mumps. Diagnosis is made by finding a positive mumps IgM antibody or a significant increase in IgG antibody between acute and convalescent specimens. In those that are previously immunized against mumps, a positive IgM may not be seen. Mumps virus can be isolated from clinical specimens, including saliva, urine, and cerebrospinal fluid. If virus isolation is attempted, the specimen should be collected within the first 5 days of illness.

Neither mumps immune globulin nor immune globulin is effective post-exposure prophylaxis. Vaccination with MMR after exposure is not harmful and may possibly avert later disease.

ADDITIONAL INFORMATION:

For additional information please call your local health department or the NYSDOH Immunization Program at 518-473-4437. More information can also be obtained at the CDC's National Immunization Program website at www.cdc.gov/NIP.