



Philadelphia Department of Public Health
Division of Disease Control

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Health Advisory

Mumps Outbreak in a Tradition-Observant Jewish Boarding School in Philadelphia November 8, 2010

The Philadelphia Department of Public Health (PDPH) Division of Disease Control (DDC) is investigating an outbreak (N=18) of mumps among adolescent and young adult males who reside at a tradition-observant Jewish boarding school in west Philadelphia. The index case of this outbreak developed symptoms on October 15th 2010, 16 days after visiting an out-of-state Yeshiva with an ongoing mumps outbreak. PDPH is issuing this health advisory to raise awareness of recent mumps transmission and to review recommended diagnostic and disease control measures. All suspected and confirmed cases of mumps should be reported to DDC *immediately* by calling 215-685-6748 during business hours or 215-686-4514 and asking to speak with the DDC on-call staff after hours.

Clinical Manifestations and Diagnostic Procedures

Mumps is a viral illness spread by respiratory secretions. Symptoms include fever and acute onset of unilateral or bilateral tender, self-limited, swelling of the parotid or other salivary glands. Persons with mumps are infectious 2 days before the onset of parotitis to 5 days after parotitis onset. Other less common, but more serious manifestations of mumps include viral meningitis, orchitis, oophoritis, pancreatitis, and sensorineural hearing loss. The incubation period for mumps ranges from 12 to 25 days. Suspect cases should receive confirmatory diagnostic tests. These include:

- Buccal specimens for viral culture or PCR using Dacron® swabs at the time of parotitis onset or up to 9 days after parotitis onset. Swabs should be stored in viral transport media and refrigerated at 4 °C. Specimens that will be held for >24 hours should be frozen at -70 °C and shipped on dry ice.
- Serum specimens should be collected from all suspect mumps cases for mumps IgM and IgG titers. Vaccinated individuals may not develop a classic IgM response even though their symptoms are consistent with acute illness. Therefore, paired sera collection is recommended to demonstrate a 4-fold rise in serum mumps IgG antibody between acute and convalescent sera samples.

Vaccination

Mumps-containing vaccine (such as MMR) continues to be effective and is the best protection against disease. MMR is given to children at 12-15 months of age with a second dose at 4-6 years of age. For children identified to be part of a community with ongoing transmission, the second dose of MMR vaccine can be given as early as 28 days after the first dose. All MMR vaccine should be documented by medical providers. For patients (children and adults) without valid documentation, providers can contact DDC (215-685-6830) to determine if immunization has been documented in the KIDS Immunization Registry or administer another vaccine dose to ensure that the patient is fully immunized.

Isolation and Exclusion Recommendations

Because mumps is spread by large respiratory droplets, cases should be isolated and excluded from school, work, close living environments (e.g. dormitories) and/or childcare centers for 5 days after the onset of parotitis. Non-immune contacts of mumps cases are at risk of developing the disease 12-25 days after exposure and should NOT attend work, childcare, or school during this time. Although MMR vaccine is not effective as post-exposure prophylaxis for mumps, it should still be given to non-immune contacts to protect against future exposures. While vaccine continues to be the most effective way to prevent mumps, mumps may also be prevented by practicing good respiratory and hand hygiene.

Additional information on mumps can be found at <http://www.cdc.gov/mumps/index.html>

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