



Philadelphia Department of Public Health
Division of Disease Control

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Health Advisory
Mumps Outbreak in Tradition Observant (Orthodox) Jewish Community
March 1st 2010

Since June 2009, state and local health departments in New York and New Jersey in collaboration with the Centers for Disease Control and Prevention have been investigating an outbreak of mumps within the tradition observant (Orthodox) Jewish community. As of January 29th 2010 over 1,521 outbreak-related cases of mumps have been reported primarily from Brooklyn, NY, Orange County, NY, Rockland County, NY and Ocean County, NJ. Cases have also been reported in other jurisdictions, including several recently identified in Philadelphia. Over 97% of the outbreak-mumps cases are associated with the tradition observant (Orthodox) Jewish community, with more than 85% of cases occurring in ages 7-18 years. Most have been age-appropriately immunized with mumps-containing vaccine. More information on the outbreak is available in the February 12 Morbidity and Mortality Weekly Report entitled "Update: Mumps Outbreak—New York, New Jersey, June 2009—January 2010" available at www.cdc.gov/mmwr/preview/mmwrhtml/mm5905a1.htm. The Philadelphia Department of Public Health Division of Disease Control (DDC) is requesting that healthcare providers and community leaders assist in controlling this outbreak by following current recommendations.

Clinical Presentation of Mumps

Mumps is a viral illness spread by respiratory secretions. Clinical manifestations 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 or 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. There is no specific treatment for mumps.

Laboratory Testing

- Buccal specimens for viral culture or PCR can be collected 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 ice packs or 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.
- DDC can assist with coordinating laboratory testing at the Pennsylvania Bureau of Laboratories.

Mumps 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 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 to children 15 months to 4 years. All MMR vaccine should be documented by medical providers. For patients (children and adults) without valid documentation, providers can contact DDC 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. It is not known whether a third dose of MMR provides additional protection, however there is no evidence that having more than 2 doses of MMR is harmful.

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Philadelphia Department of Public Health

Division of Disease Control • 500 South Broad Street, Philadelphia, PA 19146
215-685-6740 (phone) • 215-686-4514 (after hours) • 215-545-8362 (fax) • www.phila.gov/health/units/ddc • hip.phila.gov

Public Health Management of Cases

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. All clinically compatible cases of mumps should be reported *regardless* of the laboratory test status or results.

Because mumps is spread by large respiratory droplets, cases are to 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.

Infection control in the healthcare setting should be exercised by instituting standard and droplet precautions when caring for a suspect or confirmed mumps case. Exposed healthcare workers who do not have documentation of two MMRs or laboratory confirmation of disease should be furloughed from work day 12 to day 25 after exposure.

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

- Information on mumps including general disease information, specimen collection and management, and prevention and control in healthcare settings can be found on the CDC website at: <http://www.cdc.gov/mumps/index.html>
- Materials for patients, signs for infection control and prevention, and links to CDC's MMWR outbreak reports are also available at: <https://hip.phila.gov/xv/DiseaseInformation/Mumps/tabid/147/Default.aspx>