



October 22, 2009

ALERT # 41: Outbreak of Mumps in Brooklyn

- 1) **57 confirmed or probable cases of mumps have been identified in Brooklyn since August 21, 2009.**
- 2) **Report all suspect cases of mumps to the Bureau of Immunization at (212) 676-2288 or x2284 (or 212-764-7667 after hours).**
- 3) **Keep suspect cases of mumps home for 5 days after onset of parotitis. If hospitalized or seen in a healthcare setting, place on droplet precautions immediately.**
- 4) **Obtain clinical specimens for diagnostic testing from all suspect mumps cases including blood (for IgM and IgG to mumps) and a buccal swab for viral isolation.**
- 5) **Children should receive their first dose of measles-mumps-rubella (MMR) vaccine at age 12 months and their second dose at age 4-6 years.**
- 6) **Ensure that all health care personnel have documentation of two mumps containing vaccinations or other proof of immunity to mumps.**

Please Distribute to All Primary Care Staff, Infectious Disease, Emergency Medicine, Internal Medicine, Pediatrics, Family Medicine, Laboratory Medicine and Infection Control Personnel

Dear Colleagues,

Since August 21, 2009, the New York City Department of Health and Mental Hygiene (NYC DOHMH) has been investigating an outbreak of mumps that began among children from Borough Park who attended summer camp in Upstate New York. Cases of mumps have continued to occur in Borough Park since the onset of the school year. At this time, there are 57 confirmed or probable cases and additional suspect cases are under investigation. Cases have ranged in age from 1 to 42 years, with the majority occurring among children age 10-15 years. Twenty-five per cent of cases either did not have two doses of mumps containing vaccine or had unknown vaccination status, while the remaining 75% had two documented doses of mumps containing vaccine.

Mumps is an illness characterized by acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting 2 or more days, and without other apparent cause. Rare complications of mumps include orchitis, mastitis, oophoritis, deafness, and encephalitis. The infectious period for mumps is from 2 days before onset of symptoms to 5 days after symptoms appear. The incubation period for mumps from exposure to onset of illness ranges from 12-25 days.

Children who are not fully vaccinated against mumps are at the highest risk of infection. Individuals who have received two doses of mumps vaccine (preferably as MMR) are at significantly lower risk of developing mumps but outbreaks have been seen among fully vaccinated individuals (reference: CDC. Update: Mumps Activity---United States, January 1--October 7, 2006. MMWR 2006;55(42):1152-3 (www.cdc.gov/mmwr/preview/mmwrhtml/mm5542a3.htm)).

Mumps is spread via large respiratory droplets. A contact is an individual who had face-to-face contact, within three feet of a presumed mumps case, or an individual who had direct contact with the case's respiratory secretions. A list of potential contacts should be obtained and their immunity to mumps should be determined. Non-immune contacts are at risk for developing mumps and should be isolated at home from day 12 through day 25 after exposure. Vaccination is **NOT** considered effective post-exposure prophylaxis against mumps, but MMR vaccination should be offered to non-immune contacts that do not have a contraindication to MMR vaccination to protect against subsequent exposures.

In the healthcare settings, suspect mumps cases should be given a mask to wear; healthcare providers should institute standard and droplet precautions. Exposed healthcare workers who do not have evidence of immunity at the time of exposure should stay home for the incubation period of 12 days through day 25 after exposure.

Lab specimens should be collected to confirm mumps. Serology specimens for mumps IgM and IgG titers should be collected in a red top tube at acute presentation. Convalescent serum samples for mumps may need to be collected 2-3 weeks after symptom onset. Blood or serum should be kept cold, not frozen, after collection. Viral specimens, a buccal swab (preferred) or a throat swab should be collected at the time of acute presentation, up to 6 days after the onset of parotitis. Viral specimens should be taken using a Dacron® swab and viral transport media and kept samples cold (4°C); if viral specimens are going to be held for more than 24 hours prior to transport then they should be frozen at -70° and shipped frozen on dry ice. The Bureau of Immunization will arrange to pick up specimens for testing at the Public Health Laboratory. Please note, serum IgM may be negative in up to 50-60% of acute serum samples among patients who have been previously immunized. A diagnosis of mumps in a vaccinated person should not be ruled out on the basis of a negative IgM alone.

A physician documented history of mumps or documentation of receipt of two mumps containing vaccines are considered evidence of mumps immunity. All healthcare workers born on or after 1957 with no physician documented history of prior infection are recommended to receive **2 doses** of mumps containing vaccine. Healthcare workers born before 1957 who do not have a history of physician diagnosed mumps should receive 1 dose of mumps containing vaccine and in an outbreak setting, a second dose of mumps containing vaccine should strongly be considered.

By notifying NYC DOHMH, as required, we can facilitate obtaining rapid results and institution of control measures, if indicated. **Clinically suspect cases of mumps must be reported to the**

NYC DOHMH. Reports should be made at time of initial clinical suspicion. If you are considering the diagnosis of mumps and are ordering diagnostic testing for mumps then you should report the case at that time.

In summary:

- 1) Report all suspect cases of mumps to the Bureau of Immunization immediately at 212-676-2288 or x2284 (or 212-764-7667 after hours).**
- 2) Keep mumps suspect cases home for 5 days following the onset of parotitis, and keep susceptible contacts home for the incubation period of 12 days through 25 days after exposure.**
- 3) In healthcare settings, place mumps suspect cases on respiratory droplet isolation immediately by placing a face mask on the person.**
- 4) Obtain clinical specimens for diagnostic testing (for both IgM and IgG to mumps and buccal swabs) and refrigerate while waiting for pick-up by the NYC DOHMH.**
- 5) Assure that all those eligible for MMR vaccine receive appropriate and timely vaccination.**
- 6) Review health care personnel records to ensure appropriate documentation of immunity to mumps**

As always, your cooperation is greatly appreciated.

Sincerely,

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