



Mumps Guidance for Providers

Clinical Information

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. Complications of mumps are rare but can include orchitis, oophoritis, pancreatitis, viral meningitis/encephalitis, and sensorineural hearing loss. However, 20-30% of infections are asymptomatic. Mumps can occur in previously vaccinated persons as well as persons who previously had positive mumps IgG antibodies.

Parotitis can be caused by several different viruses and bacteria as well as non-infectious causes; however, mumps is the only known cause of parotitis that can lead to epidemics, so confirming a diagnosis of mumps is important. Parotitis is often confused with swelling of the lymph nodes of the neck. Lymph node swelling can be differentiated by the well-defined borders of the lymph nodes and their location behind the angle of the jawbone. In contrast, parotitis is characterized by ear protrusion or obscuring of the angle of the jaw.

Transmission and Infection Control

Mumps is spread via large respiratory droplets. The infectious period is from 2 days before parotitis onset to 5 days after onset. Patients with suspected mumps who will be sent home should be given a mask to wear and home isolation should be instituted through and including day 5 after parotitis onset. Healthcare providers should wear a surgical mask when evaluating suspected mumps cases. There is no effective post-exposure prophylaxis for persons exposed to mumps. People who are not fully vaccinated with MMR vaccine are at highest risk of getting sick and should monitor for mumps symptoms for 25 days after their last exposure while at risk for getting sick.

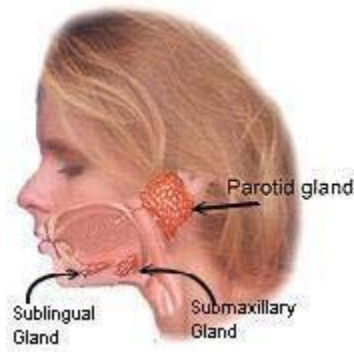
Reporting Suspected Cases to the Health Department

Suspected cases of mumps should be reported to the NYC Department of Health and Mental Hygiene (Health Department) at 866-692-3641. Reports should be made at time of initial clinical suspicion. Providers considering the diagnosis of mumps who are ordering diagnostic testing should report the case at that time. Do not wait for laboratory confirmation to report.

Diagnostic Testing

Collect a buccal swab for mumps PCR and blood for mumps IgM and IgG. In previously vaccinated persons, serology may be unreliable due to undetectable IgM in previously vaccinated persons. Mumps PCR may be negative in previously vaccinated persons as well, but is more likely to yield positive results as compared to serology. Swabs should be synthetic (non-cotton) in liquid, viral transport media; these are the same swabs and media used for influenza PCR testing. Massage the parotid (salivary) glands for 30 seconds before swabbing the buccal cavity, which is the space near the upper rear molars between the cheek and the teeth (see figure below). Refrigerate specimens after collection.

Figure: Instructions for collecting a buccal swab: Massage the parotid (salivary) glands for 30 seconds. Swab the buccal cavity, which is the space near the upper rear molars between the cheek and the teeth. Swab the area between the cheek and gum by sweeping the swab near the upper molar to the lower molar area.



Vaccination

Mumps vaccination (MMR) is the best way to prevent mumps infection. Mumps vaccine should be given to children routinely at 12 months of age with a second dose at 4 to 6 years of age. Estimated mumps vaccine effectiveness is ~80% to 90% at preventing mumps disease. Because mumps vaccine is not fully effective at preventing illness, persons who are fully vaccinated may still develop mumps illness, but their illness may be less severe. Although vaccination is not effective post-exposure prophylaxis against mumps, MMR vaccine should be administered to eligible close contacts (e.g. parents and other household members) who do not have documentation of one or two live mumps-containing vaccinations, as age appropriate, to protect against future exposures.

Immunity to Mumps

Acceptable presumptive evidence of immunity to mumps includes: 1) age-appropriate documented doses of mumps vaccine or 2) lab evidence of immunity or lab confirmation of disease or 3) birth before 1957. For unvaccinated healthcare workers born before 1957 who lack lab evidence of mumps immunity or lab confirmation of disease, healthcare facilities should consider vaccinating personnel with two doses of MMR, particularly during an outbreak of mumps.