

Health Advisory: Mumps

Georgia Department of Public Health Requests Reports of Suspect Mumps Cases

Action Steps:

Local health departments: Please forward to hospitals and clinics in your jurisdiction.

Hospitals and clinics: Please distribute to infectious disease doctors, infection preventionists, emergency department physicians, intensive care physicians, neurologists, radiologists, primary care providers, and pediatricians.

Summary

Mumps is a contagious viral infection characterized by the acute onset of unilateral or bilateral, tender swelling of parotid or other salivary glands, often preceded by a nonspecific prodrome, which may include muscle aches, loss of appetite, malaise, headache, and fever. An estimated 30% of mumps infections may be asymptomatic or manifest primarily as a respiratory infection. In recent U.S. outbreaks, complications of mumps have included orchitis in up to 10% of adolescent and adult males, and oophoritis in $\leq 1\%$ of adolescent and adult females. More rarely pancreatitis, meningitis, encephalitis, and deafness have occurred.

Mumps is spread by contact with infectious respiratory tract secretions and saliva. The incubation period is typically 16 to 18 days but can range from 12 to 25 days. In recent mumps outbreaks, the majority of cases had received two doses of MMR vaccine. Therefore, a history of appropriate vaccination does not rule out mumps in persons with compatible symptoms.

Background

As of December 31, 2016*, 5,151 mumps cases have been reported to the Centers for Disease Control and Prevention (CDC) – the highest number reported nationally since 2006 when 6,584 cases were reported. Many of these cases have been associated with outbreaks in college/university settings. These outbreaks, mostly affecting young vaccinated adults, have ranged in size from a few to several hundred cases, and are likely due to a combination of factors including the intensity of the exposure setting (college campus) coupled with behaviors that increase the risk of transmission, a lack of previous exposure to wild-type virus, and possible waning immunity.

Sixteen mumps cases[†] were reported to the Georgia Department of Public Health (DPH) during 2016.

Reporting

Mumps is a notifiable disease and suspect mumps cases should be reported to the Georgia Department of Public Health (O.C.G.A. §31-12-2) as soon as possible. Report suspect cases to public health by calling your local District Health Office or the DPH Acute Disease Epidemiology Section at 404-657-2588 during business hours Monday through Friday, or 1-866-PUB-HLTH after-hours on evenings and weekends. Do not await laboratory results before reporting.

Laboratory Testing

The preferred method for confirming acute mumps infection is detection of mumps virus from a buccal specimen by reverse transcriptase-polymerase chain reaction testing (RT-PCR). Collection of a buccal specimen within 1 to 3 days of parotitis onset is optimal, although virus may be detected for up to 9 days. Prior to obtaining the specimen, the parotid gland, which extends from in front of the ear to the angle of the jaw, should be massaged for 30 seconds. Detailed specimen collection guidance is available at the DPH mumps [website](#).



Acute infection may also be laboratory confirmed by the presence of mumps IgM antibody or a significant rise in mumps IgG antibody titer between acute- and convalescent-phase serum specimens. However, interpretation of mumps IgM results should be made with caution, as response may be attenuated or absent in vaccinated persons, and disease processes may cause false positive IgM results due to cross-reactivity.

The Georgia Department of Public Health strongly recommends the **collection of serum for mumps IgM/IgG AND collection of two buccal swabs and a urine specimen to confirm a mumps case**. To coordinate specimen collection and laboratory submission, call your District Health Office or the DPH Acute Disease Epidemiology Section at 404-657-2588 during business hours Monday through Friday, or 1-866-PUB-HLTH after-hours on evenings and weekends. **Please do not send specimens directly to the Georgia Public Health Laboratory (GPHL) or the Centers for Disease Control and Prevention (CDC).**

Vaccination

Mumps-containing vaccine (MMR) remains the most effective prevention against disease. One dose is 78% effective, and two doses are 88% effective[†]. Although mumps immunity may wane over time and vaccinated individuals can still develop mumps, infections tend to be milder with a much lower incidence of complications.

Ensure that patients are up-to-date on their MMR vaccine. Vaccination is recommended for children at 12 to 15 months of age with a second dose at 4 to 6 years of age. Documentation of two MMR vaccinations or proof of immunity to mumps is required to attend school in Georgia.

Although a third dose of MMR has been selectively utilized as a control measure in a few recent large outbreaks, at this time the CDC recommends isolation measures as a first line in controlling mumps transmission in most outbreak settings among vaccinated individuals. **DPH has not identified any mumps outbreaks on college/university campuses in Georgia and does not recommend a 3rd dose of MMR at this time.**

Actions Requested of Healthcare Providers:

- Consider mumps in persons with acute parotitis or other salivary gland swelling, or orchitis or oophoritis, unexplained by another more likely diagnosis, regardless of vaccination history.
- Use droplet and standard precautions when caring for suspect or confirmed cases and verify that healthcare workers likely to encounter these patients have documented immunity.
- Obtain appropriate clinical specimens. For acutely ill patients who have been previously vaccinated or who are part of an outbreak, a buccal swab for PCR testing is preferred.
- **Isolate suspect and confirmed mumps cases and instruct them not return to school, work, or other public places until five days after the onset of parotitis.** Exposed healthcare providers, without evidence of immunity, should be excluded from work.
- Report suspect cases to public health before obtaining confirmatory lab results by calling your District Health Office or the DPH Acute Disease Epidemiology Program at 404-657-2588 during business hours Monday through Friday, or 1-866-PUB-HLTH after-hours on evenings and weekends.
- Ensure patients are up-to-date on their vaccinations according to CDC's recommended schedules for [children](#) and [adults](#).

GA DPH Contact Information

Ebony Thomas, MPH or Jessica Tuttle, MD

Vaccine-Preventable Disease Unit

Phone: 404-657-2588

Email: Ebony.Thomas@dph.ga.gov or Jessica.Tuttle@dph.ga.gov

*2016 data are preliminary and subject to change.

† Includes suspect, probable and confirmed

‡ Centers for Disease Control and Prevention (2016, July 14). Mumps Vaccination. Retrieved from <https://www.cdc.gov/mumps/vaccination.html>