



## Texas Department of State Health Services

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Commissioner

### HEALTH ADVISORY Regional Mumps Outbreak: Prevention and Control Guidelines

**From:** James A. Zoretic, MD, MPH Regional Director, HSR 2/3  
**To:** Infection Prevention Staff, Local Health Authorities, Regional Epidemiologists  
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#### **SITUATION OVERVIEW**

An outbreak of mumps in Johnson County is ongoing with 38 confirmed and probable cases identified and an additional 20 cases being investigated. In addition, several other cases not related to the Johnson County outbreak have been identified in Collin, Dallas, Denton and Tarrant Counties. This regional activity reflects an increase in mumps cases and outbreaks at the national level in comparison with the previous 5 years.

**Due to the ongoing local outbreak and outbreaks occurring in other states, additional cases will likely occur especially in this time of year with high volume travel. Due to the highly communicable nature of this disease, we continue to advise clinicians to follow these recommendations.**

#### **GUIDANCE FOR HEALTH CARE PROFESSIONALS**

Physicians and other healthcare providers are requested to consider mumps in the initial differential diagnosis of patients presenting with the following symptoms **particularly those who have traveled out of the state or have come into contact with known mumps cases:**

- Unilateral or bilateral swelling of the parotid or salivary glands preceded by a low grade fever, myalgia, malaise or headache.

Mumps infection may also present with non-specific or respiratory symptoms therefore exposure history to a possible mumps case is imperative. In addition, ~20% of those infected may be asymptomatic.

**Immediately report any suspect** cases of mumps to The Texas Department of State Health Services, HSR 2/3 at 817-822-6786 or your local health department. ***It is preferred that contact be made while the patient is present in the clinical setting in order to facilitate testing and the initiation of the public health investigation, including follow-up of potential exposures.***

#### **Infection Control Precautions**

- Mumps is highly contagious and is transmitted from person to person by respiratory droplets or saliva. The incubation period is 16-18 days (range of 12-25 days) from exposure to onset of parotitis. Persons are contagious from 3 days before to 5 days after onset of parotitis.
- Suspected cases should be triaged quickly from waiting areas, with standard and droplet precautions recommended.
- Persons with mumps commonly present in physician's offices or emergency rooms and pose a risk of transmission in these settings. **All healthcare personnel should have documented**

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evidence of mumps immunity or documentation of 2 doses of MMR vaccine on file at their work location. Healthcare facilities are reminded to review the immune status of all employees.

### Diagnostic Testing

Testing for mumps should be done for all suspected cases. The following specimens should be collected for all patients suspected to have mumps at the time of the initial medical visit:

- Buccal swab (**preferred**) for viral isolation and PCR testing. **NOTE: individuals previously vaccinated may not develop detectable IgM antibodies therefore a buccal swab is highly recommended.**
- Timing of buccal specimen is critical especially for those who have been previously vaccinated. The ideal timeframe for specimen collection is within 3 days of parotitis onset but up to 10 days post parotitis onset may yield sufficient virus for detection
- Blood drawn and submitted for serological testing to detect IgM antibody
  - Specimens should be collected 5-7 days after onset of symptoms.
- Serological and PCR testing is available at most commercial laboratories. The DSHS laboratory can only perform mumps PCR testing.

### Control Measures

- Outbreak control measures are most effective when applied as early as possible.
- Investigation of contacts of suspected mumps cases is critical therefore providers should attempt to obtain information regarding household members, vaccination status of the case and household members, school of attendance and any travel or gatherings attended by the suspected case.
- **Suspected cases should be excluded from school and work activities until 5 days after onset of parotitis. After 5 days, a person may resume regular activities (work, school and other group activities).**
  - Household and close contacts of suspected mumps cases should be advised to watch for signs and symptoms of mumps for up to 25 days after exposure. **Only contacts who develops signs/symptoms consistent with mumps should be advised to exclude from work, school or group settings.** Individuals who develop signs/symptoms should contact their healthcare provider **PRIOR** to going to a clinic setting for care and testing to ensure proper prevention and control measures are taken to prevent further spread of the mumps.

### Immunization Recommendations

- MMR vaccine prevents most, but not all, cases of mumps and complications caused by the disease. Two doses of the vaccine are 88% (range: 66 to 95%) effective at protecting against mumps; one dose is 78% (range: 49% to 92%) effective. The MMR vaccine protects against currently circulating mumps strains. Outbreaks can still occur in highly vaccinated U.S. communities, particularly in close-contact settings such as schools and universities.

- Outside of an outbreak setting, the MMR should be administered at 12-18 months and a second dose between 4-6 years of age.
- For high risk individuals in an outbreak setting such as certain schools in Johnson County, please note the following immunization recommendations:
  - Vaccination of all household and close contacts of a mumps case to prevent illness from future exposures should be recommended; for those household and close contacts who are fully immunized (two doses of MMR) a third dose of MMR is recommended.
  - For children who are residents of Keene and Cleburne, Texas between the ages of 1-4 years who have received one MMR, the second dose should be provided as soon as possible.

### **EXCLUSIONARY CRITERIA**

In persons with mumps, children should be excluded from school and other related group settings until after the fifth day of parotitis onset. During an outbreak, susceptible persons (i.e., those without documented immunization or previous mumps infection) should be isolated from those who have mumps to prevent further propagation of the disease. In schools or other group settings, children who have not been immunized or completed the vaccination series should be observed for signs and symptoms and should be excluded from the setting until the 26<sup>th</sup> day after the last day of parotitis onset of a mumps case within the setting.

Additional information on exclusion and readmission can be found under the [Texas Administrative Code](#).

Thank you for your assistance in protecting and promoting the health of the region, if you have any questions or would like more information, please contact The Texas Department of State Health Services, HSR 2/3 at (817) 264-4541 during business hours or (817) 822-6786 after hours.