INFECTIOUS PAROTITIS (MUMPS)

I. DEFINITION:

Mumps is a viral illness caused by a paramyxovirus, a member of the Rubulavirus family. For additional information on Infectious Parotitis (Mumps), see the Epi Manual.

II. ETIOLOGY AND EPIDEMIOLOGY:

Mumps (infectious parotitis) is caused by the mumps virus. Humans are the reservoir for this virus. It is spread through droplet transmission and/or direct contact with the saliva or respiratory secretions of an infected person. Outbreaks have been documented in congregate settings with prolonged close contact, and in large household settings, even among currently vaccinated individuals. The incubation period is about 16 to 18 days but can range from 12 to 25 days. Most individuals are infectious from 2 days before the onset of parotitis through 4 days after onset. For additional information, see the Epi Manual.

III. CLINICAL FEATURES:

Initially symptoms are nonspecific, and include myalgia, anorexia, malaise, headache, and low-grade fever. Parotitis may be unilateral or bilateral and characterized by fever and acute swelling and tenderness of the parotid gland and/or other salivary glands (submaxillary or sublingual). For additional information, see the Epi Manual.

IV. MANAGEMENT PLAN FOR LABORATORY SPECIMENS:

A. Contact the Acute Disease Service (ADS) Epidemiologist-on-Call (405-271-4060) prior to obtaining laboratory specimens to discuss specimen collection of suspected mumps cases. Ensure that anyone susceptible to mumps is not accidentally exposed while the specimens are collected.

B. Possible testing methods include serologic testing and viral detection via culture and RT-PCR. For serology testing, the acute specimen should be collected as soon as possible upon suspicion of mumps disease, and a convalescent specimen should be collected about 2 – 3 weeks after the acute specimen. Mumps virus isolation and mumps RT-PCR can be detected in saliva (buccal or oral swab); specimens should be collected as close to symptom onset as possible, preferably within 1 – 3 days of parotitis onset. Urine samples have not been as useful as buccal and oral specimens for virus isolation or detection of mumps RNA.

C. Oral or buccal swab samples for viral isolation or RT-PCR:

1. Specimens are collected by massaging the parotid (salivary) gland area for 30 seconds, swabbing the parotid duct (space near the upper rear molars between the cheek and teeth), and placing the specimen into viral transport media. Synthetic swabs are preferred to collect oral and buccal samples.

2. Once specimens are collected, refrigerate at 4°C until shipment.

3. Specimens should be shipped on cold packs within 24 hours. If there is a delay in shipment, the sample is best preserved by freezing at -70°C. Frozen samples should then be shipped on dry ice.

4. In certain circumstances, samples may be forwarded to the designated laboratory response network (LRN) laboratory or CDC for testing by RT-PCR. In these instances, the public health nurse will work with the ADS Epi-on-Call for...
specifics regarding specimen collection, documentation, and transportation.

D. Serology:

1. Refer the client to their primary healthcare provider or alternative clinic for IgM and IgG testing.

2. In situations where laboratory testing cannot be obtained by the client’s primary healthcare provider or an alternative clinic (in a timely fashion or due to costs) for specific persons suspected of having mumps, the public health nurse should notify the ADS Epi-on-Call and discuss laboratory testing of the client through the OSDH contract reference laboratory.

3. If testing is conducted using the OSDH contract reference laboratory, specimens will be collected per contract laboratory specifications.

4. Instructions for specimen collection, documentation, and transport to the contract reference laboratory will be provided by the ADS Epi-on-Call to the public health nurse prior to collection.

REFERENCES:


