Increased parotitis in South Carolina

Summary

Multiple reports of parotitis have recently been reported in South Carolina. Parotitis can be a symptom of mumps which is reportable to local DHEC offices by phone within 24 hours; this includes suspected cases for which laboratory testing is underway. When a case of mumps is suspected, testing by buccal swab for PCR and culture are preferred, and serology is helpful for diagnosis in unvaccinated patients. Persons with suspected mumps should be isolated for 5 days after onset of parotitis and, if they visit a healthcare setting, droplet precautions should be used. Providers should ensure that they themselves and all staff are immune to mumps in accordance with CDC recommendations or receive two doses of MMR vaccine. Influenza A is another known causative agent for parotitis; flu testing is also recommended.

Clinical Information

Parotitis is the inflammation of one or both parotid glands causing jaw swelling and pain. Causative agents include influenza A virus and mumps virus. The classic symptoms of mumps include parotitis, either unilateral or bilateral. Swelling can also be seen in the submandibular and sublingual glands in a small percentage. Nonspecific symptoms including myalgia, anorexia, malaise, headache, and low-grade fever may precede parotitis by several days. As many as 40%–50% of mumps infections are associated with nonspecific or primarily respiratory symptoms, particularly among children less than 5 years of age. Only 30-40% of mumps infections produce typical acute parotitis. Up to 20% of persons with mumps have no symptoms of disease. Complications of mumps infection can include deafness, orchitis, oophoritis, mastitis, pancreatitis, meningitis/encephalitis, and spontaneous abortion.

While not a common symptom of influenza, swelling of salivary glands (parotitis) has been reported in persons with laboratory confirmed influenza infections.

Epidemiology

South Carolina has had confirmed cases of mumps this year (2017) and mumps cases do affect almost every state in the U.S. Transmission of mumps virus occurs by direct contact with respiratory droplets, saliva or contact with contaminated fomites. The incubation period is generally 16-18 days (range 12-25 days) from exposure to onset of symptoms. Persons with mumps are infectious from the 2 days before onset of parotitis through the 5 days after the onset of parotitis.

Vaccination and Disease Prevention

Use of mumps vaccine has significantly reduced the incidence of mumps, although outbreaks can occur even among highly vaccinated populations. In 2006, the U.S. experienced a multi-state outbreak of mumps involving more than 6,500 people; many cases occurred among college students who had
received 1 or 2 doses of mumps vaccine. Although several factors play a role in mumps control, maintaining high 2-dose MMR vaccine coverage remains the most effective way to prevent and limit mumps cases and outbreaks.

Influenza vaccination is currently available for the 2017 Flu Season and should be encouraged in your patient population.

Laboratory Testing
Acute mumps infection can be confirmed by the presence of serum mumps IgM, a significant rise in IgG antibody titer, positive mumps virus culture, or detection of virus by reverse transcriptase polymerase chain reaction (RT-PCR). CDC recommends the collection of both serum and a mumps viral specimen (buccal or oral swab) as soon as possible upon suspicion of mumps. For the mumps viral specimen, a buccal swab is preferred. At the initial visit, serum should be collected to test for mumps IgM antibodies. If the IgM is positive, a second specimen is not necessary. If the suspected case has previously received MMR vaccine, the IgM response may be missing, delayed, or transient; if the acute IgM is negative, a second (convalescent-phase) serum specimen should be collected 2–3 weeks after the first specimen. If the patient is not vaccinated, a second IgM could be collected 4-7 days after onset of parotitis since the IgM response may take longer to develop.

DHEC can answer questions regarding and assist in testing for mumps and influenza.

Resources for Additional Information
www.cdc.gov/mumps/hcp.html
www.cdc.gov/mumps/lab/index.html
https://www.cdc.gov/flu/about/season/health-care-providers-parotitis.htm

DHEC contact information for reportable diseases and reporting requirements
Reporting of parotitis in suspect mumps is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2017 List of Reportable Conditions available at: http://www.scdhec.gov/Library/CR-009025.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).
## Regional Public Health Offices – 2017

Mail or call reports to the Epidemiology Office in each Public Health Region

**MAIL TO:**

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<tr>
<th>Lowcountry</th>
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<th>Pee Dee</th>
<th>Upstate</th>
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| 4050 Bridge View Drive, Suite 600  
N. Charleston, SC 29405  
Fax: (843) 953-0051 | 2000 Hampton Street  
Columbia, SC 29204  
Fax: (803) 576-2993 | 145 E. Cheves Street  
Florence, SC 29506  
Fax: (843) 661-4859 | 200 University Ridge  
Greenville, SC 29602  
Fax: (864) 282-4373 |

**CALL TO:**

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| Berkeley, Charleston, Dorchester  
Phone: (843) 953-0043  
Nights/Weekends: (843) 441-1091 | Kershaw, Lexington, Newberry, Richland  
Phone: (803) 576-2749  
Nights/Weekends: (888) 801-1046 | Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion  
Phone: (843) 661-4830  
Nights/Weekends: (843) 915-8845 | Anderson, Oconee  
Phone: (864) 260-5581  
Nights/Weekends: (866) 298-4442 |
| Beaufort, Colleton, Hampton, Jasper  
Phone: (843) 322-2453  
Nights/Weekends: (843) 441-1091 | Chester, Fairfield, Lancaster, York  
Phone: (803) 286-9948  
Nights/Weekends: (888) 801-1046 | Clarendon, Lee, Sumter  
Phone: (803) 773-5511  
Nights/Weekends: (843) 915-8845 | Abbeville, Greenwood, McCormick  
Phone: (864) 260-5581  
Nights/Weekends: (866) 298-4442 |
| Allendale, Bamberg, Calhoun, Orangeburg  
Phone: (803) 268-5833  
Nights/Weekends: (843) 441-1091 | Aiken, Barnwell, Edgefield, Saluda  
Phone: (803) 642-1618  
Nights/Weekends: (888) 801-1046 | Georgetown, Horry, Williamsburg  
Phone: (843) 915-8804  
Nights/Weekends: (843) 915-8845 | Cherokee, Greenville, Laurens  
Pickens, Spartanburg, Union  
Phone: (864) 372-3133  
Nights/Weekends: (886) 294-4442 |

For information on reportable conditions, see  
http://www.scdhec.gov/Health/FHPF/ReportDiseasesAdverseEvents/ReportableConditionsInSC/

**DHEC Bureau of Disease Control**  
Division of Acute Disease Epidemiology  
2100 Bull St Columbia, SC 29201  
Phone: (803) 898-0861  
Fax: (803) 898-0897  
Nights / Weekends: 1-888-847-0902

**Categories of Health Alert messages:**

- **Health Alert** Conveys the highest level of importance; warrants immediate action or attention.
- **Health Advisory** Provides important information for a specific incident or situation; may not require immediate action.
- **Health Update** Provides updated information regarding an incident or situation; unlikely to require immediate action.
- **Info Service** Provides general information that is not necessarily considered to be of an emergent nature.