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## State of Wisconsin

### Department of Health and Family Services

#### Management of Mumps Cases

##### **Clinical case definition of mumps**

An illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting 2 or more days, and without other apparent cause \*. Cases are classified as either confirmed or probable. A confirmed case of mumps is one which is laboratory confirmed or meets the clinical case definition and is epidemiologically linked to a confirmed or probable case. A case is classified as probable if it meets the clinical case definition, but is neither laboratory-confirmed nor linked to another confirmed or probable mumps case.

The clinical manifestations of infection range from asymptomatic (estimated at up to 50% of infections) to rare cases of encephalitis. After an incubation period of 12 – 25 days (typically 16-18 days), there is usually one day of a non-specific prodrome with fever, anorexia, malaise, myalgia and headache. Then earache and unilateral or bilateral parotid swelling occurs. This lasts for five to seven days before resolving without sequelae. Submandibular gland involvement is palpable in perhaps 10% of cases. Cervical adenopathy, however, is distinctly uncommon.

The most common extra-salivary complications include non-sterilizing orchitis in 25% of post-pubertal males and rare cases of encephalitis, pancreatitis and myocarditis. There has been no convincing pattern of teratogenicity associated with maternal infection. Low birth weight does seem to be more common if maternal infection occurs in the first trimester.

Mumps is the only known cause of epidemic parotitis. Acute parotitis however can also be caused by parainfluenza virus type 3, coxsackievirus and influenza A virus. The main strategy for controlling a mumps outbreak is to define the at-risk population and one or more transmission settings, and to rapidly identify and vaccinate susceptible persons.

Mumps vaccine, preferably as MMR vaccine, should be administered to susceptible persons. Although mumps vaccination has not been shown to be effective in preventing mumps in persons already infected, it will prevent infection in those persons who are not infected. If susceptible persons can be vaccinated early in the course of an outbreak, they can be protected. However, cases are expected to continue to occur for at least 3 weeks following vaccination among newly vaccinated persons who are already infected because of the long incubation period for mumps.

##### **Case Management**

Mumps virus spreads in respiratory droplets and contagiousness is similar to influenza and rubella. Exposure is considered to be contact within 3 feet to droplets from nasal or oral secretions or direct contact with saliva.

Any person experiencing signs and symptoms of parotid or other salivary gland inflammation, must remain at home in isolation and not attend work or school until 9 days after the onset of salivary gland swelling. They should immediately contact their primary healthcare professional and arrange for possible laboratory testing. The local health department must also be notified and will assist in contact investigation. As part of the case investigation, the potential for further transmission should be assessed, and contacts of the case-patient during the infectious period (3 days before until 9 days after onset of parotitis) should be identified. Virus has been isolated from saliva up to seven days prior to onset of parotitis.

Please reference the following table for the recommended use of MMR vaccine.

2006 Mumps outbreak: MMR vaccine use and recommendations\*\*

Age Groups	Proof of immunity?	Vaccinate?	Number of doses recommended.
<u>General Population:</u> <ul style="list-style-type: none"> <li>• Born before 1957</li> <li>• Born during or after 1957</li> </ul>	None required  1 MMR	Yes (upon individual request)***  Yes if no history of having 1 MMR or mumps disease	No recommendation at this time  1 dose total
<u>High Risk Adults:</u> (any age) <ul style="list-style-type: none"> <li>• Health Care Worker</li> <li>• Day Care Worker</li> <li>• School Staff</li> <li>• College Staff</li> </ul>	Serological test of immunity or 2 doses of MMR	Yes if no evidence of immunity by serology or from vaccine (2 doses)	2 doses of MMR spaced at least 28 days apart
<u>Children:</u> 1 to 4 years of age	1 dose of MMR	Yes if they do not have one MMR	1 dose total
<u>Students:</u> <ul style="list-style-type: none"> <li>• K- grade 12</li> <li>• College</li> </ul>	2 doses of MMR	Yes if no evidence of immunity by serology or from vaccine (2 doses)	2 doses of MMR spaced at least 28 days apart

\* As defined by the Council of State and Territorial Epidemiologists/CDC

\*\* Recommendation of the Advisory Committee on Immunization Practices and consultation with the National Immunization Program (CDC) and the Iowa State Immunization Program.

\*\*\* Vaccinate if exposure has been documented or is eminent and the individual has no previous history of mumps disease.