Mumps
Overview

- Definition
- Etiology
- Pathogenesis
- Symptoms
- How is it spread?
- Risks

- Symptoms
- Treatment
- Prevention
- Surveillance
- Mumps in the News
- Role of the ICP
Mumps
What it is...

- Mumps or epidemic parotitis, is an acute viral infection that primarily affects the parotid glands.
- It typically involves swelling of one or both Parotid glands.
Etiology

- Single stranded RNA
- Member of the Paramyxoviridae family
- Resembles the parainfluenza viruses
- It is sensitive to heat and ultraviolet light
Etiology Cont.

- Vaccine introduced in 1967
- Recommended for routine use in 1977
- Further recommendation for a 2-dose measles, mumps and rubella (MMR) in 1989
- The reported incidence of mumps declined post vaccination
Pathogenesis

- Respiratory transmission of virus
- Replication in nasopharynx and regional lymph nodes
- Viremia 12-25 days after exposure with spread to tissues
- Multiple tissues infected during viremia
Symptoms

- Fever
- Muscular pain (neck)
- Headache
- Malaise
- Swelling of the partoid is noted around 12 to 24hrs.
Symptoms

Mumps ~ very contagious

Parotid salivary glands swollen
+ meningitis
+ encephalitis
+ orchitis
+ epididymitis

Mumps vaccine
Safe
Very effective
Incubation

- Incubation period 12 - 24 days
- It can take between 14 and 25 days for symptoms to show up after you have been infected.
- A person with mumps is most infectious from seven days before to five days after they have symptoms, which can also include headache and fever.
Transmission

- The mumps virus can be spread in several different ways including:
  - Direct contact, such as kissing an infected person,
  - Airborne, such as when an infected person coughs, sneezes, or talks,
  - Touching objects that were recently exposed to infected mucus or saliva
Risks

- Mumps is not usually serious, but sometimes the virus may cause complications.
- Most complications are rare.

- Orchitis
- Mastitis
- Oophoritis
- Encephalitis
- Meningitis
- Hearing loss or deafness
- Fetal loss during first 3 months
Diagnosis & Treatment

Diagnosis

- Symptoms
- Vaccination history
- Potential exposure
- Laboratory testing

Treatment

- pain medications
- Antipyretics
- Drink plenty of fluids and healthy diet
- Avoid close contact, avoid sharing glasses or utensils, cover your cough, hand washing
Prevention

The most important way to prevent mumps is to make sure that you and your family members are vaccinated!
Vaccination Schedule NL

- Measles, Mumps and Rubella (MMRV) can be prevented by receiving two doses of vaccine given at least one month apart.
- The first dose is usually given at **12 months** as measles, mumps, rubella and varicella (chickenpox) vaccine (MMRV).
- The second dose is given as MMRV at **18 months**.
- Persons who have had 2 doses of MMR or MMRV vaccine are considered immune and those born before 1970 are considered to have acquired natural immunity, even if they were not vaccinated. Most individuals born in 1983 or later have received two doses of MMR vaccine.
Vaccination cont.

- Immunization Schedules Previously In Use In Newfoundland & Labrador

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Description</th>
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<tbody>
<tr>
<td>Measles and Rubella (MR)</td>
<td>This vaccine replaced plain measles. It was given from October 1972 to December 1974 for all one year old children. May have been given before the first birthday.</td>
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<tr>
<td>Measles, Mumps, and Rubella (MMR)</td>
<td>This vaccine replaced MR. Program began in December 1974 and MMR may have been given to children less than one year of age, although the recommended age is one year. In 1996 a 2nd dose was added at 18 months. People born 1983 and after should have received 2 doses of MMR as a result of a school catch-up that started in 1999. The MMR vaccine was no longer used for childhood programs when MMRV started in 2012.</td>
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<tr>
<td>Measles, Mumps, Rubella and Varicella (MMRV)</td>
<td>Starting January 2012 MMRV replaced MMR and Var at the 12 month clinic visit. On July 1st, 2014 MMRV replaced MMR at 18 month clinic visit. Children born 2013 and after receive MMRV at 12 and 18 mos.</td>
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</table>
Immunization Rate NL

Communicable Disease Quarterly Report. Volume 32, Number 4; December 2015
Surveillance

- Mumps is a notifiable disease in all provinces and territories, with cases reported by public health professionals to provincial and territorial departments of health.
- Mumps is under **List A** of the Notifiable Disease List (immediate, detailed reporting of suspect and confirmed cases).
## Surveillance

### Newfoundland and Labrador Communicable Disease Surveillance
Monthly Disease Report: December 2015

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<thead>
<tr>
<th>Disease Class</th>
<th>Disease Name</th>
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<th>CENTRAL</th>
<th>WESTERN</th>
<th>Labrador Grenfell</th>
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<td>YTD 15</td>
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Source: Communicable Disease Control System, Department of Health and Community Services, Government of Newfoundland and Labrador

Disclaimer: Data are subject to continuous updates; small variations in numbers may occur.

Note: Prior to January 2011, “Invasive Meningococcal Disease, Probable” was included under the heading “Invasive Meningococcal Disease”

The majority of chickenpox cases meet the probable case definition.

There was one case of Dengue Fever in August 2013 related to travel.

Date verified: 3-Jun-2016
Recent NL Communication

March 17, 2017

To: Physicians, Nurse Practitioners and Public Health Staff
From: Dr. David Allison, Chief Medical Officer of Health
Re: Selected Disease Updates for March 2017: Measles, Mumps and Rubella

“At the present time we have not seen any confirmed cases of Measles or Rubella in our province.” “The number of confirmed mumps cases (viral PCR) in our province for 2017 are 3!”
“So far this year in Ontario, there have been 19 cases, compared with the usual annual count of five to 23. Toronto Public Health has logged at least 17 cases since January, far above the four cases annually that have been logged over the past five years. All of the cases have been confirmed in adults aged 18 to 35. The investigation focuses on bars on the west side of downtown. About 60 per cent of those infected either never received the mumps, measles and rubella booster or only got one of the two recommended doses.”
Role of ICP in Surveillance

- Notify your regional Communicable Disease Nurse or Medical Officer of Health.
- Exclude the suspected case from school, work and group activities.
- Viral PCR is recommended for diagnosis, especially in those previously immunized. IgM and IgG serology can be difficult to interpret for diagnosis, especially in immunized individuals.
- Include all relevant information on the requisition. Testing requested for these conditions will be reviewed and declined by the Public Health and Microbiology Laboratory if the clinical picture does not appropriately fit the tests ordered.
- Consider sampling for other upper respiratory tract viruses, as these can present with similar symptoms.
Summary

- Surveillance
- Familiarity with signs and symptoms.
- Collaboration and Notification of CDCN.
- Compile the history as necessary in collaboration with CDCN.
- Droplet Precaution Measures
References


https://www.cdc.gov/mmwr/preview/mmwrhtml/00053391.htm


Any questions?
THANK YOU