

Mumps – laboratory and public health advice¹

Contact Public Health/Clinical Microbiologist prior to testing for mumps.

Clinical case definition: Parotid or other salivary gland swelling² lasting more than 2 days +/- fever³. Other syndromes uncommonly include viral meningitis, encephalitis, orchitis and pancreatitis.

Mumps likelihood increased if;

- In the 12-25 days prior to onset
 - Overseas travel to an area where mumps is occurring – eg Fiji, Tonga
 - NZ travel to area with on-going Mumps cases (currently Auckland)
 - Contact with a confirmed case
- One dose or no MMR vaccination. Note: mumps can still occur in fully vaccinated cases as 2 doses of vaccine are ~85 % effective. In the current outbreak 2/3 of cases are aged 10-29 years.

Laboratory testing: Serological diagnosis is difficult, particularly in the previously

vaccinated. In this situation the IgM response is often absent, and diagnosis depends on IgG changes based on two samples

- A viral buccal swab for PCR ideally within 3 days, up to 7 days of parotitis onset is the recommended sample.
 - The buccal area is the space near the upper rear molars between the cheek and gum. In unilateral parotitis swab the affected side
 - Results may take several days if testing occurs at another laboratory
- Mumps IgM serology is not routinely recommended for diagnostic purposes. It can be useful as an early indication for public health purposes and may be advised in discussion with public health.
- **Include** history of MMR vaccination and date of onset of parotitis on the laboratory request form

Public Health Advice

- Notify Public Health on suspicion
- **Exclude** the person with suspected mumps from school, early childcare centre, university, work, sports or other groups while awaiting test results
- Advise the person to avoid close contact with non-immune individuals and persons who have recently undergone HSCT, as mumps is spread by close contact with respiratory and oral secretions
- Advise good hand hygiene and cough etiquette for all suspected cases and their contacts to interrupt transmission.
- Advise the person you are notifying Public Health and to expect a phone call
- People with mumps are most infectious from 2 days before to 5 days after parotitis onset (virus has been isolated in saliva from 7 days before to 9 days after onset of parotitis)
- Primary and secondary care providers should ensure all their staff (including reception and administration) are immune and that masks are available at reception.
- Primary care should check and offer MMR immunisation for all patients who are susceptible. This is particularly important for Pacific people from countries that only offer MR (measles, rubella) **not** MMR e.g. Fiji, Tonga. MMR is offered in the Cook islands, Niue, Tokelau and Samoa. Ensure pre-travel advice, especially to Fiji, Tonga includes checking mumps protection. If in doubt, vaccinate. MMR vaccine is free for anyone who needs it.

¹ Note separate advice applies in the greater Auckland region where community spread is established and the disease control focus has moved to a 'manage it phase' and protection of the most vulnerable

² Other causes of parotitis include EBV, influenza A, parainfluenza 1,3, Echovirus, coxsackieA virus

³ 30% laboratory confirmed cases in the Auckland outbreak 2017 did not have a fever.