



## Laboratory Diagnosis of Mumps

As you will be aware, there has been a national increase in mumps cases recently, particularly in the Auckland region.

The laboratory diagnosis of mumps parotitis has recently changed to take advantage of newer molecular methodology such as polymerase chain reaction (PCR). This is essentially replacing serological methods for the laboratory diagnosis of mumps parotitis. Mumps IgM may not be positive in previously vaccinated individuals, and some mumps serological assays are prone to non-specific reactions. Therefore, mumps IgM lacks the sensitivity and specificity to be a reliable indicator of recent infection. Paired (acute and convalescent) mumps IgG serology is not useful for the diagnosis of an acute illness since it requires acute and convalescent sera and this only allows for retrospective diagnosis.

Please note the following practice points:

- **A viral buccal swab for mumps PCR is the recommended sample.** It should ideally be taken within 3 days, particularly in previously vaccinated patients. It can be considered up to 7 days from the onset of parotitis.
- The buccal area is the space near the upper rear molars between the cheek and gum. In unilateral parotitis, swab the affected side. Optimal results are achieved when the swab is taken after a 30 second parotid massage.
- Mumps serology is not recommended for routine diagnostic purposes in mumps parotitis.
- If there is enough suspicion to warrant laboratory testing for mumps, then Public Health should also be informed of the patient.
- **Include history of MMR vaccination and date of onset of symptoms on the laboratory request form.** This information is essential to allow best practice testing and reporting.

**Dr Michael Addidle**  
**Clinical Microbiologist**

**Please ensure all members of your institution  
receive a copy of this clinical update.**