Detection of Mumps Virus by Culture and Polymerase Chain Reaction (PCR)

Adapted from the Illinois Dept. of Public Health – Div. of Laboratories (Chicago Virology Section)

Preferred specimen: Parotid gland duct swab for viral culture collected within 9 days of onset of symptoms.

Collection of a mumps specimen for viral and PCR testing:
Massage the parotid (salivary) glands for 30 seconds.

Swab the buccal cavity (photo on right), which is the space near the upper rear molars between the cheek and the teeth. Swab the area between the cheek and gum by sweeping the swab near the upper molar to the lower molar area.

Specimen Preparation: Place swab into viral transport medium, do not remove swab. Label transport medium tube with the patient’s name or the specimen will not be tested. Refrigerate (Don’t Freeze!) the specimen until shipping.

Specimen Shipping: For shipping, place cold packs, which have been frozen for 24 to 48 hours, around the specimen container in a leak-proof outer container. To assure receipt at the laboratory within 24 hours of collection for the best test results, avoid overnight shipping on Fridays – in these instances, maintain specimen(s) under refrigeration until Monday, then ship with cold packs.

The clinical definition of mumps is an illness with acute onset of unilateral or bilateral tender, self-limited swelling for the parotid or other salivary glands, lasting for two or more days, without other apparent cause. Mumps should be considered in any patient whose presentation is clinically compatible with mumps, even those patients who have a history of vaccination.

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