
Lab Dept: Microbiology/Virology

Test Name: MUMPS PCR (MDH)

General Information

Lab Order Codes: MVPM

Synonyms: N/A

CPT Codes: 87798 – Infectious agent detection by nucleic acid (DNA or RNA), not otherwise specified; amplified probe technique, each organism

Test Includes: Mumps RT-PCR and Viral culture and identification

Logistics

Test Indications:

Mumps is characterized by:

* Non-specific prodrome including myalgia, anorexia, malaise, headache, and low-grade fever.

* Acute onset of unilateral or bilateral tender swelling of the parotid or salivary gland lasting 2 or more days without other apparent cause.

Mumps should be considered in the differential diagnosis of patients presenting with parotitis or swelling of the salivary glands, regardless of vaccination history.

Mumps Real-Time Polymerase Chain Reaction (RT-PCR, or PCR) is available for mumps case confirmation at the MDH Public Health Laboratory (MDH-PHL). Providers are asked to collect and send a PCR specimen to MDH-PHL when mumps is suspected. A clinical specimen for PCR should be taken as soon as mumps is suspected. Viral RNA is more likely to be detected when the specimen is collected as soon as possible after parotitis (or other symptom) onset. Ideally, a specimen for mumps PCR should be obtained within 0-3 days of parotitis onset (0-9 days at most). Consider the parotitis (or other symptom) onset date as day '0'.

Mumps is a reportable disease. Report suspect cases of mumps immediately to the Minnesota Department of Health. MDH can facilitate testing and exposure follow-up. Call 651-201-5414 or toll-free 877-676-5414.

Lab Testing Sections: Microbiology/Virology - Sendouts

Referred to: Minnesota Department of Health (MDH)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability:	Specimens accepted daily, 24 hours
Turnaround Time:	Results are reported within 2 - 7 days.
Special Instructions:	Do not use: wood-tipped applicators; calcium-alginate tipped swabs; charcoal swabs; gel swabs; anaerobic media

Specimen

Specimen Type: Please send one of the following specimens to the MDH-PHL, in order of preference:

1. Buccal swab
2. Throat swab
3. Urine specimen

If date of specimen collection is on day 5-9 after parotitis/symptom onset (day 0), urine is preferred over other specimens. If date of specimen collection is already more than 9 days past parotitis/symptom onset, PCR is less likely to detect viral presence and may give false negative results.

Container: Urine: Sterile screw cap container
Buccal/Throat: Swab transport system

Volume: Urine: 10 mL

Collection: **Buccal swab:** Massage the buccal cavity (the space near the upper rear molars between the cheek and the teeth) for 30 seconds and swab the area; obtain a generous amount of saliva. Place swab in transport medium and send to the lab immediately.

Throat swab: Vigorously swab tonsillar areas and posterior nasopharynx with a viral culturette. Use tongue blade to depress tongue to prevent contamination of swab with saliva. Place swab in transport medium and send to the lab immediately.

Urine specimen: Collect 10 mL of urine in a STERILE urine specimen container. First-morning voided specimens are ideal, but any urine collection is adequate. Have patient void directly into container, collecting from the first pr for the urine stream if possible.

Special Processing: Lab Staff:
Label tubes/containers with patient name, date of birth, date collected and specimen type.

Swabs: Place into viral transport media (VTM). Swabs and Urine should be kept and transported at refrigeration temperature (2 - 8° C).

Fill out and include project #955 on the Infectious Disease Testing and Submission Form <http://www.health.state.mn.us/divs/phl/clin/forms.html>

Send to MDH Public Health Laboratory with daily courier:

MDH Public Health Laboratory
Attn: Biological Accessioning
601 Robert St. N.
St. Paul, MN 55155-2531

Transport/Storage: Transport to the Laboratory immediately to maintain specimen integrity.

Sample Rejection: Specimen not submitted in appropriate transport container; dry swabs; improperly labeled specimen; insufficient volume; leaking or non-sterile containers

Interpretive

Reference Range: RNA not detected

Critical Values: N/A

Limitations: N/A

Methodology: Reverse Transcription Polymerase Chain Reaction (RT - PCR)

References: [Minnesota Department of Health web page](#) October 2014