

THE VERMONT DEPARTMENT OF HEALTH LABORATORY

Physical: 359 South Park Drive, Colchester, VT 05446

Mailing: PO Box 1125, Burlington, VT 05402-1125

1-800-660-9997 (VT only) or 1-802-338-4724

Instructions for Collecting and Shipping Specimens for Mumps Real-Time Reverse Transcriptase PCR (rRT-PCR)

VDHL Kit 11 containing:

- Insulated shipping container (optional)
- Container(s) of refrigerant (e.g., Gel-Pak) (optional)
- Labeled screw-cap tube of viral transport medium (VTM)
- (1) flocked synthetic swab (Do NOT use cotton swabs)
- Metal inner container
- Biohazard bag
- VDHL Clinical Test Request form (Micro 220)

Health care providers should notify the VDH Epidemiology Program at 802-863-7240 or 1-800-640-4374 (VT only) to make arrangements for testing. Epidemiologists are available at these numbers 24 hours a day, 7 days a week.

A. Acceptable Specimens

- Oral swabs
- Buccal swabs (optimal specimen)
- Urine specimens (Testing performed by the Centers for Disease Control and Prevention)

B. Collection of buccal swab specimens

Collect buccal swab specimens as soon as mumps infection is suspected. Buccal swab specimens collected when the patient first presents with symptoms are optimal for mumps testing by rRT-PCR.

1. Write the patient name on the Viral Transport Medium (VTM) tube.
2. Massage the parotid gland area for 30 seconds prior to swabbing the area around Stensen's duct. For an illustration of the parotid gland refer to <http://www.cdc.gov/mumps/lab/detection-mumps.html>.
3. Using the flocked synthetic swab provided, swab the buccal cavity, 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. Do **NOT** use cotton swabs. Cotton swabs may contain substances that are inhibitory to enzymes used in rRT-PCR.
4. Remove the cap from the VTM tube. Place the swab into the VTM. Break off the upper portion of the shaft and discard. Place the cap back onto the VTM tube tightly.
5. Place labeled viral transport tube containing the swab into the metal container provided. Screw cap on tightly.

C. Collection of urine specimens

1. Urine specimens have not been as useful as buccal and oral specimens for virus isolation or detection of mumps RNA. Unlike buccal and oral specimens, urine specimens may not be positive for mumps virus until >4 days after symptom onset. Collect a urine specimen if you cannot collect a buccal or oral specimen. Urine specimens will be forwarded to the Centers for Disease Control and Prevention for testing.
2. A minimum volume of 50 ml of urine should be collected in a sterile container (not provided) and then processed by centrifuging at 2500 × g for 15 minutes at 4°C. The sediment should be resuspended in 2 mL of VTM (not provided).

D. Storage and Shipment

1. Fill out the requisition form (Micro 220) completely. All information is required to ensure accurate and efficient processing of the specimen and reporting of test results.

- Name and address of health care provider
- Patient's name, address, and date of birth
- Patient's gender
- Date of specimen collection
- Source of specimen (oral or buccal swab)
- Test requested (Mumps PCR, under **Virology**)

2. Place the completed requisition form in the outside pocket of the biohazard bag. Place the metal container containing the specimen into the Ziploc portion of the biohazard bag. Place into the insulated shipping cooler.

3. After collection, specimens should be maintained at 4°C and shipped on cold packs to be received within 24 hours at the VDH Laboratory. If there is a delay in shipment, specimens, including processed urine, are best preserved by freezing at -70°C. Frozen specimens should be shipped on dry ice. Processing specimens at the VDH Laboratory within 24 hours of collection will enhance the sensitivity of the rRT-PCR.

Please use your regular courier for transport of the specimen(s) to the VDH Laboratory.

E. Specimen Rejection

- Patient information is missing on the specimen and requisition form
- Medical provider name/address is missing on the requisition form
- Specimen container is leaking
- Date of collection is missing on the form
- Specimens other than an oral swab or buccal swab or urine
- Cotton swab used instead of the synthetic flocked swab provided
- Swab specimens that are not submitted in the Viral Transport Medium provided

If you have any comments or questions regarding these instructions, please call one of the telephone numbers listed on the front of this form.