



Department of Health and Human Services
Health and Environmental Testing Laboratory
221 State Street
12 State House Station
Augusta, Maine 04333-0012
Tel: (207) 287-2727; Fax: (207) 287-6832
TTY: 1-800-606-0215

Varicella-Zoster Virus Detection by Real-Time RT PCR Laboratory Submission Information Sheet

Reporting of suspect case to Maine CDC	<ul style="list-style-type: none">• Yes: Varicella Zoster Virus (VZV) / Human Herpesvirus 3; the causative agent of “Chicken Pox” or “shingles” is a reportable condition is a Notifiable Condition. If you have not already done so, please report suspect or confirmed cases to the Maine CDC via the disease reporting line: 1-800-821-5821 (24hrs/day 7 days/week.)
Required To Submit Laboratory Specimen	<ul style="list-style-type: none">• No
Required Information	<ul style="list-style-type: none">• Information on requisition must include: suspected organism, patient name, DOB, date of collection, specimen source or type, submitter name and contact information.• Important: all specimens must be labeled with patient name and be accompanied by a HETL requisition.
Specimen Requirements	<ul style="list-style-type: none">• Vesicular fluid and saliva is collected using polyester swabs and place in sterile tube. Cultured virus isolates, biopsy tissue, undiluted Cerebral Spinal Fluid (CSF) (1.0ml minimum, 1.5ml preferred), should be placed in cryovials.• ONLY synthetic-tipped swabs (Polyester, Rayon, Dacron) with plastic shafts should be used.
Collection Instructions	<ul style="list-style-type: none">• Vesicular fluid and scab material must be stored and shipped kept at 4°C.• Cultured virus isolates and biopsy specimens must be stored and shipped kept at frozen.• Contact the Virology section prior to submission of viral isolates.
Turn Around Time	<ul style="list-style-type: none">• Results should be expected within 24hrs from business days of specimen arrival
Unacceptable Conditions	<ul style="list-style-type: none">• Specimens received without a form and clinical details or with insufficient material to analyze.• Do not use wooden shaft or calcium alginate swabs.• Do not diluted CSF.
Results	<ul style="list-style-type: none">• No Varicella zoster DNA found. Or Varicella zoster DNA found.• All results will be reported only to submitter as stated on requisition via mail or fax.
Laboratory Testing Fee	<ul style="list-style-type: none">• \$110.00 (Fee waived if testing/identification is part of an outbreak investigation by Maine CDC)
Applicable CPT Codes	<ul style="list-style-type: none">• 87798 (PCR)
Additional Information	<ul style="list-style-type: none">• Bacteriology at 207-287-1704, Virology, Respiratory, Arbovirus, and Serology at 207-287-1722• Molecular Biology, Sequencing, and Foodborne at 207-287-5769• Mycobacterium and Rabies at 207-287-1706• CT/GC at 207-287-6244



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1. Polyester Swab Method

- a. A sterile needle should be used to unroof the top of the vesicle.
- b. A sterile swab is then used to vigorously swab the base of the lesion, applying enough pressure to collect epithelial cells without causing bleeding, and collect vesicular fluid (collection of infected epithelial cells in the base of the lesion is important because they usually contain a significant amount of virus). We recommend swabs made from synthetic fibers, such as polyester (it is difficult to elute virus from cotton swabs and wooden sticks usually absorb extraction buffer and inhibit PCR).
- c. Place swab into empty tube directly. **DO NOT PLACE TRANSPORT MEDIUM INTO THE TUBE; THE SPECIMEN MUST BE KEPT DRY.** Avoid contamination by placing each swab directly into individual tubes and labeled (the tubes must be resistant to breakage).

2. Glass Slide Method

- a. Rake the edge of the slide over the selected lesion to disrupt it.
- b. Press the flat surface of the slide against the opened lesion, rocking it back and forth several times (with young children, it may be less stressful if you ask them to help with this).
- c. Air-dry the specimen.
- d. Ship in a container that protects against breakage. Cardboard mailers are the only container we've found that permit glass slides to pass through the mail unscathed. Plastic slide mailers have never worked well.

3. Crusts (scabs)

- a. Crusts are also suitable for PCR detection of VZV DNA. Scabs should be at least 2 mm in size. Crusts can be transferred directly into breakage-resistant snap-cap or screw top tubes.

4. Specimen Requirements/Handling and Shipment

- a. Document specimen description and source. Use sealed container following diagnostic sample shipping regulations. Dried specimens for PCR can be stored at ambient temperature indefinitely, although we prefer to receive specimens as soon after collection as possible. Do not refrigerate or freeze dry specimens intended for testing by PCR. Specimens can be mailed by regular post unless a result is urgently required.
- b. In rare cases involving severe complications or death, other types of specimens (e.g., biopsied tissue, cerebrospinal fluid, peripheral blood, etc.) may be sent to the National VZV Laboratory for PCR testing.