

This guide walks providers through the process of collecting, packaging, and transporting potential Measles specimens to the Washington State Public Health Lab (WAPHL).

### I. Testing for Measles

To determine if testing should be routed to WA PHL for expedited testing, consult with the Local Health Jurisdiction (LHJ) for the patient's residence. **Samples sent without approval from LHJ or a State Epidemiologist will not be tested.** Contact information for LHJ can be found [here](#).

### II. Collection of Specimens for EIA Testing

- Preferred specimen type is serum ( $\geq 1$ ml minimum volume).
- Store and ship cold (2-8°C) within 7 days of collection.
- If storage is longer than 7 days, freeze at -20°C for long term storage and ship on dry ice.

Please Note: Measles-specific IgM antibody may not be present until 72 hours or more after rash onset. If a specimen serum sample is negative for measles IgM result and was drawn *less* than 72 hours after rash onset, another specimen may be required.

IgM EIA Test shortage: currently, the entire nation is experiencing a shortage for kits to test for measles IgM; during this shortage, serology testing for measles IgM will be prioritized and done only with pre-approval by LHJ or State Epidemiologist.

### III. Collection of Specimens for RT-PCR Testing

- Within 72 hours of rash onset, collect both nasopharyngeal (NP) swab and urine (e.g. at the time of the first health care provider visit).
- **Nasopharyngeal swabs will be prioritized for testing during times of high specimen volume.**
- **Urine specimens will be priority tested if no NP swab is submitted.**
- Ship cold (2 - 8°C) on ice packs to arrive at WAPHL during business hours **within** 72 hrs of collection. Otherwise or if previously frozen, ship on dry ice.
- If arriving at WAPHL after 72 hrs after collection, freeze at  $\leq -70^{\circ}\text{C}$  and ship on dry ice

#### 1. Collect specimens, following measles collection guidelines:

RT-PCR: <https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-Measles-RTPCR.pdf>

IgM: <https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-MeaslesIgM-EIA.pdf>

IgG: <https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-MeaslesIgG-EIA.pdf>

**WA PHL required two patient identifiers on both the submission form and on the sample vial.**

Make sure the patient's name and an appropriate second identifier (date of birth, clinical ID number) are listed on the specimen tube, and match the identifiers on the specimen submission form (see Step 2 below).

Additional testing details: <http://www.doh.wa.gov/PHLMicroLabTests>

#### 2. Complete the WAPHL Serology/Virology Specimen Submission form: \_

<http://www.doh.wa.gov/Portals/1/Documents/5230/302-017-SerVirHIV.pdf>

For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).

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Make sure all of the following information is completed:

- Patient name, second identifier (e.g. date of birth), and county of residence.
- Submitter name, address, and telephone/FAX numbers.
- Specimen type, collection date, onset date, test requested (e.g. measles RT-PCR, serology).

**3. Prepare the specimens securely to prevent leakage:**

- For **urine** specimens, seal around the lid of the screw-cap container by using Parafilm™ to prevent leakage.
- For **both NP** and **urine** specimens: If the specimens will be frozen, freeze them in up-right position to prevent leaking when thawed.

**4. Package the specimen for shipment using triple-packaging (Appendix 1):**

Please Note: The below is a general guideline for packaging. It is the shipper's responsibility to follow the manufacturer's specific instructions received with the packaging materials. Packaging materials from different vendors cannot be combined (e.g. materials from Saf-T-Pak and Med-Pak cannot be interchanged or combined).

- 1) Seal the primary specimen container (sealed tube, vial or urine cup) with Parafilm™, wrap absorbent pad around each primary container and secure in place.

The absorbent pad must be sufficient to absorb the entire contents of the specimen if the container leaks or breaks.

- 2) Place the primary specimen container wrapped in absorbent into leak-proof, pressure-tested secondary packaging (e.g. 95kPa bag).

NOTE: When sending multiple specimens, each specimen must be individually packaged so that it cannot leak contents into the secondary packaging. **Urine and NP swabs are considered separate specimens.**

Follow below steps if sending multiple specimens:

- i. Place each primary specimen container with its own absorbent pad into a leak-proof biohazard bag. DO NOT place both a NP swab and urine together in a single biohazard bag.
  - ii. Place multiple biohazard bags (each with one specimen and absorbent) into leak-proof, pressure-tested secondary packaging (e.g. 95kPa bag or Tyvek envelop, etc.).
- 3) Include an itemized list of all contents between the secondary packaging and outer packaging.
  - 4) Place secondary packaging into a large plastic bag or insulated coolers with frozen ice packs or dry ice. (Frozen ice packs or dry ice **must** be placed outside the secondary packaging).
  - 5) Place the WAPHL specimen submission form **outside** the bag or cooler (e.g. between the

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bag/cooler and outer packaging). DO NOT place any paperwork inside the biohazard bag with the specimen tubes.

- 6) Add packing material as needed to secure that the secondary packaging in the original position when received at the WAPHL.
- 7) Place the bag or cooler (containing secondary packaging with specimen(s) and refrigerants) inside a rigid outer packaging.

The outer packaging must be clearly and durably marked with: “Biological Substance, Category B”, diamond label with “UN 3373” text inside, and emergency contact information.

If shipping with dry ice, the outer packaging must also be marked with “UN 1845” and total weight of dry ice used. The outer packaging must permit the release of carbon-dioxide gas.

Reusable shippers should be covered in clear packing tape and indicate a ‘Please return to’ address on the outer box so that WAPHL can ship it back.

#### **5. Ship the Measles specimen:**

- 1) Choose a delivery service with package arrival at the WAPHL within 24 hours of shipping.
- 2) The WAPHL can receive specimens:
  - Monday – Friday: 8am to 5pm.
  - Saturday: 10am to 12pm on Saturday (Saturday delivery is discouraged).

### **III. Testing schedule at the WAPHL:**

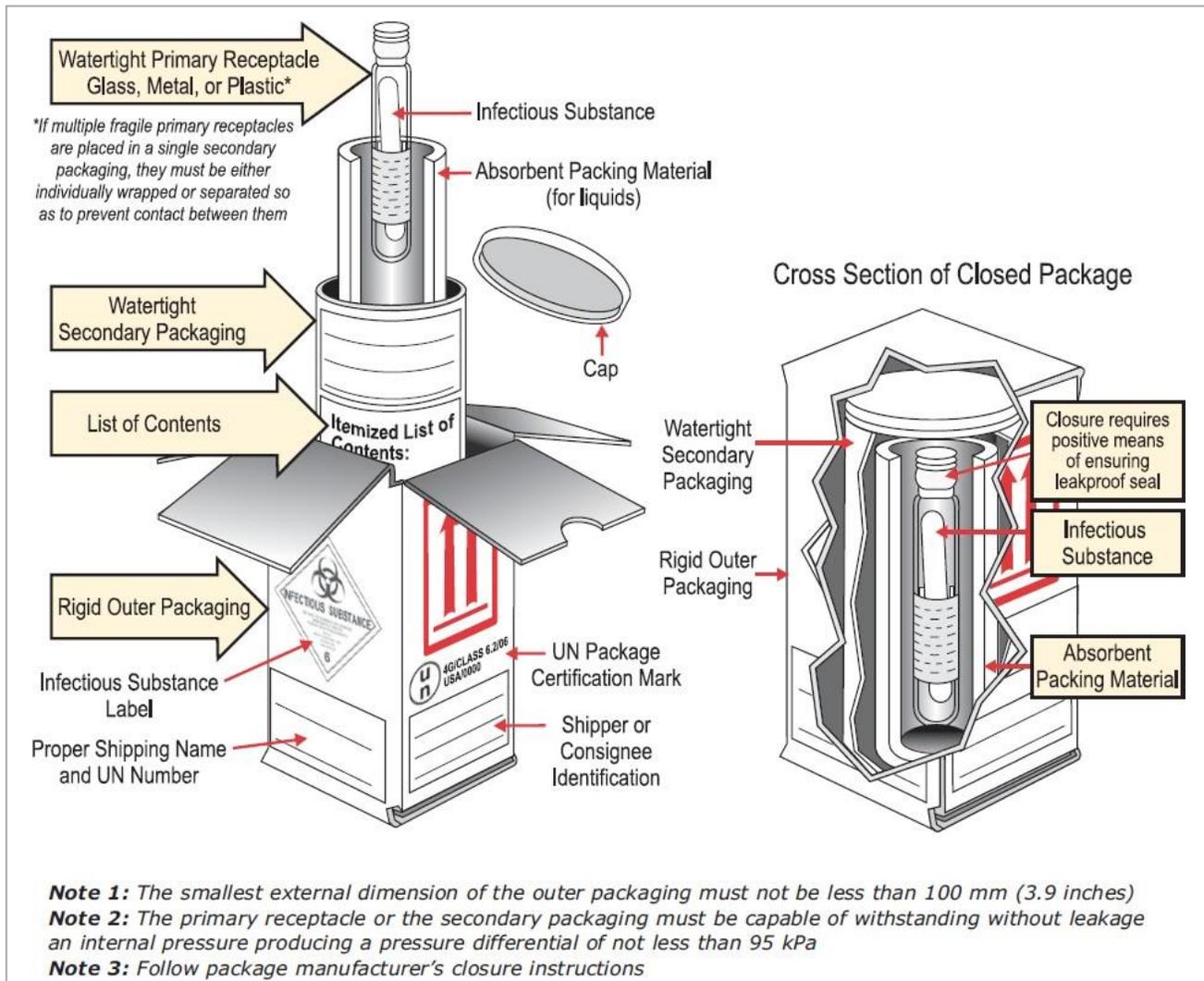
The turnaround time for measles RT-PCR is 1 business day.

**The cutoff for arrival on the current business day is 2pm.** For turnaround time purposes, specimens that arrive after 2pm will be considered "arrived" on the next business day.

For any questions about the Measles specimen shipping guide please contact:

Emily Nebergall  
Sentinel Lab Coordinator  
(206) 418-5543  
Emily.Nebergall@doh.wa.gov

**Appendix I. Packing Category B Infectious Substance.**



[https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Transporting\\_Infectious\\_Substances\\_brochure.pdf](https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Transporting_Infectious_Substances_brochure.pdf)

Clear video demonstrations of triple packaging procedures can be found:

<http://www.saftpak.com/multimedia/TrainingVideos.aspx> (Please refer to the videos "Shipping Category B Specimens" and, if needed, "Shipping with Dry Ice").