

NYSDOH Wadsworth Center Measles Virus Testing Collection, Packaging and Shipping Instructions¹



Department
of Health

- Suspected measles cases must be reported immediately to the local health department (LHD) of the patient's residence*.
- Testing at the Wadsworth Center Laboratory is preferred, especially for highly suspect cases to expedite public health follow-up. The LHD can assist in arranging testing at the Wadsworth Center Laboratory to provide more rapid molecular testing for measles compared to commercial laboratories.
- Once the LHD approves, discuss transport or shipment with the LHD, and arrange for specimens to arrive at the lab within 24 hours of collection, when feasible.
- Estimated turnaround time for suspect measles test results from specimen arrival at the Wadsworth Center is 1 business day.

SPECIMEN COLLECTION

- Collection kits are available from the NYSDOH Order Desk².
- Collect nasopharyngeal (NP) or oropharyngeal (OP) swab, urine, **AND** blood as soon as possible after rash onset. Ideally collect specimens within 3 days of rash onset, however, specimens can be obtained up to 7 days, but not more than 10 days, after rash onset.
 - If greater than 10 days post rash onset, only blood for serology (IgM and IgG) should be collected.
- All tubes must be labeled with the patient's first and last name, DOB, and date of collection.
 - What is labeled on the tube must match the paperwork.
- Ensure sample containers are leakproof, with caps tightly secured.

NP swab:

- NP swab is the preferred respiratory specimen type for reverse transcriptase polymerase chain reaction (RT-PCR). OP swab is acceptable if NP swab cannot be collected.
- Flocked swabs are preferred as they provide better specimen recovery. Sterile dacron or rayon swabs with plastic or flexible metal handles may also be used. These are the same types of swabs and media used for influenza and COVID-19 PCR testing. Do NOT use cotton or calcium alginate swabs or swabs with wooden sticks as they contain substances that inactivate some viruses and inhibit PCR. After swabbing, place swabs in LIQUID viral transport or universal transport media.
- Dry swabs not in media or other transport media are NOT acceptable for virus testing.

Urine:

- Collect 5-10 ml of urine in a sterile container. Urine does not need to be obtained via sterile methods, should not include preservatives, and should not be added to viral transport medium. Please do not overfill the container.

Serologic testing (serum for IgM and IgG):

- Collect at least 4 ml of blood in a red top or serum separator tube (red-speckled or gold-topped tubes).
- Centrifuge blood and transfer serum (2 ml needed) to a separate tube before shipping.

*If the suspect case temporarily resides in a location such as a school or camp then report immediately to that county LHD.

¹Please note: this document refers only to measles samples being sent to the Wadsworth Center, Laboratory of Viral Diseases. These instructions do not apply to Blood Borne Pathogens (i.e. HIV or HCV) or microbiology testing. While these other Wadsworth laboratories are located in the same building, specimens for testing in these laboratories should be packaged and shipped separately.

²To order collection kits – call the NYSDOH Wadsworth Center Order Desk: (518) 474-4175, and (includes swab outfit with transport media (VTM), absorbent material, plastic bag, bubble wrap, specimen bag, and NYSDOH Wadsworth Infectious Disease Requisition (IDR) forms. The IDR forms can also be printed at <https://www.wadsworth.org/programs/idr>

STORAGE, HANDLING, AND PACKAGING

- Note, that the packaging **MUST** comply with all Category B shipping requirements, including package labeling (refer to IATA training course instructions).
- Place specimens in a watertight secondary container (e.g. plastic biohazard bag) with absorbent material.
- Place the secondary container in the shipping box.
- Use a sturdy cardboard box, with a Styrofoam insert, to ensure cold temperature is maintained.
- Ship specimens for arrival at the lab within 24 hours of collection, when feasible. If 24-hour shipping is not available, for example on Friday – Sunday, specimens should be shipped within 3 days from collection:
 - Storage: Keep the swab, urine, and serum cold (4°C) until shipped. Send as soon as possible using dry ice (i.e. frozen).
 - Packaging: If dry ice is not available pack the box with 3-4 **frozen** gel packs; samples must remain cold during the entire duration of shipment. **Do Not use wet ice.**
- When non-urgent and shipment within 3 days from specimen collection is not feasible (less ideal):
 - Storage: Until shipped, the swab, urine, and serum should be stored at -70°C. Pour off serum prior to storage and shipping.
 - Packaging: Pack frozen specimens with sufficient dry ice to remain frozen during the entire duration of shipment. Uncentrifuged blood should be shipped separately using cold packs.
 - Avoid freeze-thaw cycles.
- Electronic remote order entry is available and preferred. Contact the NYSDOH Wadsworth Center Laboratory of Viral Diseases for further details³.
- Alternatively, a hard copy version of the Wadsworth Center Infectious Disease Requisition (IDR) form can be completed manually (See Resources and Training section)
 - One form or remote order manifest can be used for multiple samples on the same patient, provided all samples are collected on the same day. IDR must be included and NOT come in contact with the specimen.

SHIPPING

- Routine virology specimens are classified as Category B Infectious Substances.
- Ship the box **OVERNIGHT** using the carrier of your choice – i.e. FedEx, UPS, USPS.
 - Samples must arrive in the laboratory the following day.
 - Record shipment tracking number.
- All packages should be addressed to the following:

Attn: Patrick Bryant
Virology Laboratory
Wadsworth Center, NYS DOH
David Axelrod Institute
120 New Scotland Ave
Albany, NY 12208

**If serology only, Diagnostic Immunology Laboratory, Attn: Kelly Howard*
- Only ship packages Monday – Thursday for delivery Tuesday – Friday. The NYSDOH can arrange special accommodations for weekend and holiday transport under certain circumstances.
- **Do not delay public health notification of measles cases due to weekends or holidays.**
 - **Provider:** Alert the local health department of all samples collected.
 - **Local Health Department:** Notify the NYSDOH Division of Vaccine Excellence, 518-473-4437, M-F 8 am to 5 pm, or after hours at (866) 881-2809.

Resources and Training

- All persons involved in packaging and shipping human clinical specimens for testing must receive training. Please refer to the following CDC reference or participate in another certified training program.
<https://reach.cdc.gov/course/packing-and-shipping-dangerous-goods-what-laboratory-staff-must-know>

³The NYSDOH Wadsworth Center Laboratory of Viral Diseases: (518) 474-4177. Fax: (518) 473-4336 www.wadsworth.org/programs/id/virology