

NPHL Supplemental Guidance: Collecting and Handling Specimens for Measles PCR

Laboratory confirmation should be pursued for all patients with suspected measles. CDC recommends collecting either a nasopharyngeal (NP) swab or throat (OP) swab for reverse transcription polymerase chain reaction (RT-PCR) testing as well as a blood specimen for serology testing from all patients with clinical features compatible with measles. Collecting a urine specimen along with an NP/OP swab may improve the sensitivity of testing. The NPHL can be utilized for local health department (LHD)-approved RT-PCR testing requests, but serology must be obtained via a reference laboratory. NPHL collaborates with the Minnesota Public Health Laboratory (MPHL), which has been designated as a regional CDC test site for measles RT-PCR testing.

Preparations – Notification

- Communicate with facility infection preventionist (IP) of a potential measles case.
- Obtain test approval from local health department (LHD)
- If necessary, order supplies from NPHL: [NPHL supply orders](#)
- If not already done, register for and set up NUIrt account: [NUIrt sign-up](#)

Supplies Needed

- Viral transport kit media and swab (Micro114)
- Sterile urine container (Micro117)
- [Vaccine Preventable Disease \(VPD\) Supplemental form](#)
- 2x patient label with last, then first name and DOB
- 2x small biohazard bag/ adsorbent dry pad per specimen collected (Bag1)
- Category B shipping system (Transport_17, Transport_18 or Transport 24 depending on size and temperature needs)
- Ice packs (Transport_03)

Specimen Collection/ Handling (Nasopharyngeal or Throat Swab)

- Use standard nasopharyngeal/ throat sample collection technique to swab the patient
 - Swab the nasal passage of the nasopharynx ([video](#))
- OR -**
- Vigorously swab tonsillar areas. Use tongue blade to depress tongue to prevent contamination
- Place the sample swab in the specimen tube with 2-3 ml of transport media and tighten the lid
- Label specimen container with patient full name, DOB, time and date of collection, source, and collector initials
- Confirm specimen label matches the patient's ID band or badge
- Place the labeled specimen tube into a biohazard bag
- Refrigerate specimen after collection and maintain refrigerated temperature (2-8°C) until ready to ship
- Specimens being stored longer than 24 hours after collection should be frozen at -70°C**

Specimen Collection/ Handling (Urine)

- Collect a minimum of 5-10ml of urine in a sterile, leakproof container
- Label specimen container with patient full name, DOB, time and date of collection, source, and collector initials
- Confirm specimen label matches the patient's ID band or badge
- Place the labeled specimen container into a biohazard bag
- Refrigerate specimen after collection and maintain refrigerated temperature (2-8°C) until ready to ship
- Specimens being stored longer than 24 hours after collection should be frozen at -70°C**

Ordering and Shipping

- Order patient test (CDCSO) in NUIrt for each specimen type and populate all required information.
 - If facility does not have an ordering physician, please use Dr. Timothy Tesmer, Nebraska Chief Medical Officer
- Print off CDCSO Batch List in NUIrt.
- Populate [Vaccine Preventable Disease \(VPD\) Supplemental](#) form
- Place both the NUIrt Batch List and the VPD Form in the outer pocket of the specimen biohazard bag(s).
- Package specimen(s) as a Category B in a size and temperature appropriate insulated Category B transport system
 - Ship refrigerated specimens on frozen cold packs to maintain 2-8°C
 - Ship frozen specimens on dry ice
 - Storage temperature must be maintained during specimen transport (via courier or overnight shipping)
- Ship to NPHL via courier or FedEx

Note: the NPHL will provide transport to the MPHL for RT-PCR testing. An approximate 24-hour turn-around-time for results is expected following receipt of the specimen in the Minnesota laboratory.

Please call NPHL at (402) 559-9444 with questions or if you need any assistance