



Mpox Public Health Laboratory Testing Guidance for Human Clinical Specimens

Testing Criteria

- CDC recommends individuals who meet at least suspect case criteria be tested for mpox infection:
<https://www.cdc.gov/poxvirus/mpox/clinicians/case-definition.html>
- Prior to sample collection, contact your Local Health Department or DSHS Health Service Region to ensure patient meets criteria for testing (www.dshs.texas.gov/idcu/investigation/conditions/contacts/)
 - Public health staff will coordinate with their Laboratory Response Network (LRN) facility to provide approval for testing.

Test Availability

- Non-variola *Orthopoxvirus* generic real-time PCR (polymerase chain reaction) is available at LRN facilities
 - Some *Orthopoxvirus* PCR positive samples may be forwarded for Monkeypox virus characterization tests at the Centers for Disease Control and Prevention (CDC) laboratory (<https://www.cdc.gov/laboratory/specimen-submission/detail.html?CDCTestCode=CDC-10515>)
 - CDC diagnostic real-time PCR can detect the following poxviruses: variola, Monkeypox, vaccinia, orf, pseudocowpox, and bovine papular stomatitis virus.
 - Consider requesting a sample be forwarded to CDC if:
 - Patient is being treated with TPOXX (tecovirimat; consider sending lesion specimens)
 - Specimens from persons with known recent international travel
 - Specimens from patients with unusual clinical presentation
 - Unusual non-variola *Orthopoxvirus* PCR results
- Poxvirus serology available at CDC but requires consultation with public health prior to submission.

****NOTE:** Select commercial and hospital laboratories also offer *Orthopoxvirus* PCR testing. Healthcare providers should confirm what testing



is available through these facilities prior to submitting patient specimens for testing at commercial laboratories.**

Specimen Types Accepted

- Recommended: dry swabs of lesion material

****PRIOR to sample collection, confirm with the laboratory to which samples will be sent what types of specimens are currently accepted. Testing methods are updating rapidly****

Specimen Collection, Handling, and Storage

Use appropriate personal protective equipment (PPE) and follow standard precautions during collection. Vigorously swab or brush lesion with two separate sterile synthetic swabs (recommended: polyester, nylon, or Dacron; rayon also accepted but cannot be forwarded to CDC) with a plastic, wood, or thin aluminum shaft. **Do not use cotton swabs.** Collect multiple specimens as follows:

- Break off end of swab applicator into a 1.5- or 2-mL screw-capped tube with O-ring or place each entire swab in a separate sterile container that has a gasket seal.
- Two swabs from each lesion should be collected, preferably from different locations on the body. Label the tubes as sample XX and sample XX "duplicate" for swabs from the same location or lesion. Collect samples from lesions which differ in appearance.
- Swabs and other specimens should be placed in different containers.
- Specimens should be stored within an hour of collection, preferably frozen (-20°C or lower, up to 60 days) or refrigerated (2-8°C up to 24 hours).

Specimen Shipping

Submit specimens cold or frozen (depending on when collected; see guidance below) to your nearest LRN facility in Texas using the following reference: <https://www.dshs.texas.gov/lab/eprLRN.shtm>

- Contact LRN facility ahead of time to verify that the appropriate specimen submission form has been utilized.
- Specimens and material for the current outbreak of the West African clade of Monkeypox virus can be shipped as UN 3373 Biological Substance, Category B.
- Do not ship on Fridays or before government holidays. Ship specimens Monday-Thursday by overnight delivery.



- Specimens should be placed in a biohazard bag and stored at 4°C or -20°C as indicated below:
 - Specimens that are shipped the same day of collection and will arrive at the lab within 24 hours of collection can be stored at 4°C and should be shipped with cold packs
 - Specimens that will be stored and arrive at the lab more than 24 hours after collection should be stored at -20°C and shipped on dry ice
- All specimens must be labeled with at least two patient specific identifiers; both a primary and a secondary identifier. The identifiers must appear on both the primary container and the associated submission form. Missing identifiers may delay lab results or lead to samples being unsatisfactory.
- Specific to the Austin LRN only:
 - Include in the box a completed copy of the G-27A submission form with "Other" marked in Box 5, and "Mpox" written in the blank.
 - Ship to the physical address: TX DSHS Lab Services, ATTN: BioThreat Team 512-776-3781, 1100 W. 49th Street, Austin TX, 78756

Additional Information

Public health contact email:

EAIDUMonitoring@dshs.texas.gov

Website: <https://www.dshs.state.tx.us/IDCU/disease/mpox>