

# Monkeypox Specimen Collection Guidance

Version 3.3; Released 08/03/2022

## 1. For any suspected monkeypox case:

- The most updated CDC guidance can be found here: <https://www.cdc.gov/poxvirus/monkeypox/index.html>
- Place patient on Contact, Airborne, and Eye Protection Precautions. All persons who enter the room must wear gloves, gown, eye protection, and an N95 respiratory or PAPR. Limit room entry to only essential personnel. A patient with suspected or confirmed monkeypox infection should be placed in a single-person room; special air handling is not required. The door should be kept closed (if safe to do so). The patient should have a dedicated bathroom. Transport and movement of the patient outside of the room should be limited to medically essential purposes. If the patient is transported outside of their room, they should use well-fitting source control (e.g., medical mask) and have any exposed skin lesions covered with a sheet or gown. Intubation and extubation, and any procedures likely to spread oral secretions (i.e., aerosol-generating procedures) should be performed in an airborne infection isolation (i.e. negative pressure) room.

## 2. Until testing for monkeypox is available at VUMC, there are currently two testing options:

- Send swabs to ARUP (national reference laboratory)
  - Pros: can place order without additional coordination
  - Cons: longer turn-around time (~2-5 days), patient/insurance charged for test, may delay additional testing performed at VUMC on the same sample (such as HSV-1, HSV-2, VZV) until a negative monkeypox virus result is available
- Send swabs to the Tennessee State Department of Health (TDH) laboratory
  - Pros: faster turn-around time (~1 day), no cost to patient/insurance
  - Cons: requires coordination with IP and approval from the TDH. IP will provide you information to contact the TDH and discuss the case. Specimens will not be tested by the TDH without prior approval.

Specimens can be sent either to ARUP or to the TDH. The decision for where a specimen is sent for testing is made by the provider ordering the test. Please consider the full context of the patient and their clinical presentation when deciding where to submit testing. Head-to-head performance comparisons between the tests offered by these two laboratories have not been performed. Specimen collection for testing in either laboratory is the same and is described in detail below.

## 3. How do I order testing?

- **ARUP**
  - Place a miscellaneous reference test order (**MISC RFT**) in Epic for each specimen
    - For example, if swabs are taken from three different lesions, three separate orders must be placed. Be sure to indicate the specimen type/source on each order.

- Include the following in the free-text area of each separate order:
  - Specimen Type: Other
  - Comments Section: Source (Example: “Vesicle, Left leg”)
  - Name of Test: Orthopoxvirus (includes monkeypox virus) by PCR (3005716)
  - Preferred Reference Lab: ARUP
- **Print** the order requisitions and include with the specimens.
- IP does **not** need to be notified when ordering tests from ARUP, and authorization from the TDH is not required.
- **TDH**
  - To coordinate testing with the TDH:
    - VUH/MCJCHV/VBH/VMG Clinics: Notify the VUMC Department of Infection Prevention at 615-835-1205 (24/7).
    - VWCH/VTHH/VBCH: Notify your nursing supervisor (24/7).
  - You will be provided information to contact the TDH and discuss the case. Specimens will not be tested by the TDH without prior approval.
  - If TDH approves testing, you must communicate the approval decision to and fill out the TDH PH-4182 clinical submission requisition form found [here](#). Please clearly write “orthopox PCR” or “monkeypox PCR” under “Other Miscellaneous Tests”. One requisition form must be included for each specimen. Please ensure the “Specimen Type / Source” matches what is listed on the sample collection container for each sample.

The following instructions apply to tests sent either to ARUP or TDH:

#### 4. What supplies are needed to collect the specimen?

- Sterile synthetic swabs (including, but not limited to polyester, nylon, or Dacron) with plastic, wood, or thin aluminum shaft. (**DO NOT use cotton swabs**). An example of an acceptable swab is shown in the picture below:



- Sterile container (such as a sterile urine container or sterile tube).
  - Please ensure the sterile container is labeled with the following information:
    - Patient name
    - Patient date of birth
    - Patient MRN
    - Specimen Type / Source (such as “Vesicle #1, right leg”)

## 5. How is the specimen collected?

- **Ensure PPE (gloves, gown, eye protection, and an N95 respiratory or PAPR) is worn during specimen collection**
- Acceptable specimens:
  - Preferred [ARUP and TDH]: direct swab of vesicles or lesions
  - Alternative [TDH only]: vesicle fluid, skin crust, vesicle 'roof', touch prep (slide) of lesion, fresh biopsy (no formalin)
- Collection: Clinicians are strongly encouraged to collect multiple specimens for preliminary and confirmatory testing. **Two (2) swabs from each lesion (maximum of 3 lesions, or 6 swabs per patient) should be collected for testing.**
  1. Using two sterile synthetic swabs for each lesion, swab the lesion vigorously to collect adequate DNA. It is not necessary to de-roof the lesion before swabbing.
  2. Break off the end of each swab's applicator into a sterile container or place the entire swab in a sterile container. A sterile urine cup or other sterile tube is acceptable. Please ensure the container is labeled with the patient information and specimen type/location noted above.
  3. Swabs and other specimens should each be placed in separate containers. Please ensure **each separate container is individually labeled** with the patient information and specimen type/location noted above.
    - If testing with ARUP, a separate order must be placed for each specimen (meaning each sterile container with two swabs from the same lesion)
    - If testing with TDH, a separate requisition form must be completed for each specimen. A link for the form is in section 3 above.
  4. Swabs should be placed in empty sterile containers, but will be accepted if placed in viral transport media (VTM). **Do not use universal or other transport media.**
  5. Ensure the container is securely closed. **Open or leaking containers will be rejected.**
  6. Place the container in a see-through biohazard specimen bag and seal (zip top) the bag

## 6. How do I store the specimen if necessary?

- **Refrigerate (2–8°C) specimens within one (1) hour after collection.**
  - Refrigerated specimens can be stored for up to 7 days, but specimens should be sent for testing as soon as possible.
- If needed, specimens can be frozen (-20°C or lower) and stored for up to 60 days.

## 7. Where should I send specimen?

- Send the specimens to the VUMC Microbiology Laboratory as per usual processes.
- Please ensure printed copies of the order requisitions (if ordering testing from ARUP) or completed TDH PH-4182 forms (if ordering testing from TDH) accompanies the specimens.

## 8. How will I know if the test is positive?

Tests sent to ARUP will have results posted in the Media tab of Epic.

Tests sent to the TDH will be reported to you and the patient by the TDH.

## 9. **What information should I give to my patient?**

Persons under investigation for monkeypox infection should **isolate until test results are available**. Presumptive positive and laboratory-confirmed cases should remain isolated until illness and rash have resolved.

Public health will be conducting case investigations and contact tracing of individuals with laboratory-confirmed monkeypox infection. Patient information sheet available here: <https://www.tn.gov/content/dam/tn/health/documents/reportable-diseases/Monkeypox-Tes>

### **Resources:**

- Tennessee Department of Health:
  - <https://www.tn.gov/health/cedep/reportable-diseases/monkeypox.html>
- CDC:
  - <https://www.cdc.gov/poxvirus/monkeypox/index.html>
- Guidance if Exposed to Someone with Monkeypox:
  - [https://www.vumc.org/infection-prevention/sites/default/files/public\\_files/Monkeypox-Contact-Guidance%20%28002%29.pdf](https://www.vumc.org/infection-prevention/sites/default/files/public_files/Monkeypox-Contact-Guidance%20%28002%29.pdf)
- Guidance if Tested for Monkeypox (Awaiting Results):
  - [https://www.vumc.org/infection-prevention/sites/default/files/public\\_files/Monkeypox-Tested-Guidance%20%28002%29.pdf](https://www.vumc.org/infection-prevention/sites/default/files/public_files/Monkeypox-Tested-Guidance%20%28002%29.pdf)
- Guidance if diagnosed with Monkeypox:
  - [https://www.vumc.org/infection-prevention/sites/default/files/public\\_files/Monkeypox-Case-Guidance%20%28002%29.pdf](https://www.vumc.org/infection-prevention/sites/default/files/public_files/Monkeypox-Case-Guidance%20%28002%29.pdf)