

Michigan Local Health Departments: Investigation of Suspect Cases of Monkeypox-Michigan (Updated 8/01/2022)

Background

Since May 14, 2022, [monkeypox cases have been reported in countries](#) that don't normally have monkeypox. On May 18, the Centers for Disease Control and Prevention (CDC) confirmed the first case of monkeypox associated with this outbreak in the U.S. Since then, cases are continuing to be identified globally and, in the U.S. A map and list of the current monkeypox cases by state is available at [2022 U.S. Map & Case Count | Monkeypox | Poxvirus | CDC](#).

Clinicians in the United States should be vigilant to the characteristic rash associated with monkeypox. Suspicion for monkeypox should be heightened if the rash occurs in people who, within 21 days of illness onset:

- 1) Report having contact with a person or people who have a similar appearing rash or received a diagnosis of confirmed or probable monkeypox, or
- 2) Had close or intimate in-person contact with individuals in a social network experiencing monkeypox activity, this includes men who have sex with men (MSM) who meet partners through an online website, digital application ("app"), or social event (e.g., a bar or party).
- 3) Traveled outside the U.S. to a country with confirmed cases of monkeypox, or where *Monkeypox virus* is endemic
- 4) Had contact with a dead or live wild animal or exotic pet that is an African endemic species or used a product derived from such animals (e.g., game meat, creams, lotions, powders, etc.)

Lesions may be disseminated or located on the genital or perianal area alone. Some patients may present with proctitis, and their illness could be clinically confused with a sexually transmitted infection (STI) like syphilis or herpes, or with varicella zoster virus infection.

CDC is urging healthcare providers in the U.S. to be alert for patients who have rash illnesses [consistent with monkeypox](#), regardless of whether they have travel or specific risk factors for monkeypox and regardless of gender or sexual orientation.

Recommendations for Clinicians

- **Diagnostic testing for monkeypox has become more widely available, therefore clinicians no longer need to seek public health approval for testing.**
 - **However, it is encouraged to continue to communicate information to your [Local Health Department](#) about patients who meet the suspect case definition of monkeypox (below) and testing of those patients.**

- If clinicians identify a patient with a rash that could be consistent with monkeypox, especially if the patient has one or more of the risk factors identified above, monkeypox should be considered as a possible diagnosis.
- [The rash associated with monkeypox](#) involves vesicles or pustules that are deep-seated, firm or hard, and well-circumscribed; the lesions may umbilicate or become confluent and progress over time to scabs. The rash can be confused with other diseases that are encountered in clinical practice (e.g., primary syphilis, herpes, chancroid, and varicella zoster). A high index of suspicion for monkeypox is warranted when evaluating people with a characteristic rash, particularly for men who report sexual contact with other men and who present with lesions in the genital/perianal area or for individuals reporting a significant travel history in the month before illness onset or contact with a suspected or confirmed case of monkeypox.
- Presenting symptoms typically include fever, chills, the distinctive rash, or new lymphadenopathy; however, onset of perianal or genital lesions in the absence of subjective fever has been reported.
- The Michigan Department of Health and Human Services Bureau of Laboratories provides [testing for orthopoxviruses](#), including monkeypox. **See specimen collection instructions below on pages 5-6.**
- In addition, several commercial laboratories now offer testing for orthopoxvirus (monkeypox) including, Aegis Sciences, ARUP, LabCorp, Mayo Clinic Laboratories, Quest Diagnostics, and Sonic Healthcare. Consult the commercial laboratory for their specimen collection and handling requirements. Below are links to commercial lab monkeypox testing information.
 - Aegis <https://www.aegislabs.com/our-services/monkeypox/>
 - ARUP <https://ltd.aruplab.com/Tests/Pub/3005716>
 - Labcorp <https://www.labcorp.com/infectious-disease/monkeypox>
 - Mayo <https://news.mayocliniclabs.com/2022/07/11/mayo-clinic-laboratories-launches-monkeypox-test-to-increase-access-availability/>
 - Quest <https://www.questdiagnostics.com/healthcare-professionals/about-our-tests/infectious-diseases/monkeypox>
 - Sonic <https://www.sonichealthcareusa.com/about-us/news/2022/07/sonic-healthcare-usa-announces-testing-availability-for-monkeypox/>
- Information on infection prevention and control in healthcare settings is provided on the CDC website [Infection Control: Hospital | Monkeypox | Poxvirus | CDC](#).
- Transmission of monkeypox requires prolonged close interaction with a symptomatic individual. Brief interactions and those conducted using appropriate PPE in accordance with Standard Precautions are not high risk and generally do not warrant PEP. [Risk exposure assessments should be conducted as recommended by the CDC](#).
- [Vaccine is available for post-exposure treatment](#). Contact the MDHHS Division of Immunizations at MDHHS-MPV-Vaccine@michigan.gov with questions about vaccines.
- Monkeypox is a reportable condition in Michigan. Clinicians should notify their [local health department](#) of patients suspected of, being tested for, or testing positive for

Monkeypox virus or *Orthopoxvirus*. If possible, suspect patients can also be entered into the [Michigan Disease Surveillance System \(MDSS\)](#) by the healthcare facility infection prevention staff.

Recommendations for Health Departments

- Enter any suspect monkeypox cases into the Michigan Disease Surveillance System (MDSS) under the Reportable Condition: Monkeypox with the Case Status of Unknown, see Case Definition section below for further case classification guidance. LHDs no longer need to use the outbreak ID MONKEYPOX2022 unless it is part of a specific outbreak name.
- Assign outbreak names that are specific (e.g., location/event, month/year) to prevent overlap with other outbreak names. Because Outbreak Name is a free text field, all cases associated with the outbreak should have the exact same name (e.g., same spacing or other punctuation) to assist in searching, for example [FACILITY OR EVENT NAME MMYYYY]
 - Tip: To see if an outbreak name has already been created, a user can search the outbreak name field in MDSS using asterisks as wildcards, e.g., *CampExample* would pull up all cases containing CampExample anywhere in the Outbreak Name field. Work with the facility or event organizers to obtain a guest list to do direct notification to attendees about their possible exposure
 - If a guest list is not available a HAN message, Epi-X or Press Release may be used to send a broader message about cases associated with the facility or event
 - Regional Epidemiologists are available to assist with notification efforts
- After diagnosis of monkeypox, begin [contact tracing of individuals](#) who may have been exposed to the patient while the patient was symptomatic. Contacts should be monitored for 21 days after their last date of contact with the patient.
- Share this document and any monkeypox-related HAN Health Advisory with relevant healthcare provider networks, including Sexually Transmitted Infections (STI) clinics that may not always receive CDC HAN messages.

Case Definition (Effective August 1, 2022):

Epidemiologic Criteria

Within 21 days of illness onset:

Higher Risk Epidemiologic Linkages

- Contact, without the use of appropriate PPE, with a person or animal with a suspected or known orthopoxvirus or MPXV infection; OR
- Contact, without the use of appropriate PPE or Biosafety Level protocols, with laboratory specimens or other items that could serve as fomites that have been in contact with a person or animal with a suspected or known orthopoxvirus or MPXV infection; OR
- Member of an exposed cohort as defined by public health authorities experiencing an outbreak (e.g., participated in activities associated with risk of transmission in a setting where multiple cases occurred)

Lower Risk Epidemiologic Linkages

- Member of a cohort as defined by public health authorities experiencing monkeypox activity; OR
- Contact with a dead or live wild or exotic pet animal of an African species, or used or consumed a product derived from such an animal (e.g., game meat, powders, etc.); OR
- Residence in or travel to a country where monkeypox is endemic.

Clinical Criteria

A person presenting with new onset of:

- Clinically compatible rash lesions*; OR
- Lymphadenopathy or fever**

Laboratory Criteria

Confirmatory laboratory evidence:

- Detection of MPXV nucleic acid by molecular testing in a clinical specimen; OR
- Detection of MPXV by genomic sequencing in a clinical specimen.

Presumptive laboratory evidence:

- Detection of orthopoxvirus nucleic acid by molecular testing in a clinical specimen AND no laboratory evidence of infection with another non-variola orthopoxvirus; OR
- Detection of presence of orthopoxvirus by immunohistochemistry in tissue; OR
- Detection of orthopoxvirus by genomic sequencing in a clinical specimen; OR
- Detection of anti-orthopoxvirus IgM antibody using a validated assay on a serum sample drawn 4-56 days after rash onset, with no recent history (last 60 days) of vaccination*

Case Definitions**Confirmed:**

- Meets confirmatory Laboratory Criteria

Probable:

- Meets presumptive Laboratory Criteria

Suspect:

- Meets clinical criteria AND epidemiologic criteria* AND no evidence of a negative test for either non-variola orthopoxvirus or MPXV

* The characteristic rash associated with monkeypox lesions involve the following: deep-seated and well-circumscribed lesions, often with central umbilication; and lesion progression through

specific sequential stages—macules, papules, vesicles, pustules, and scabs.; this can sometimes be confused with other diseases that are more commonly encountered in clinical practice (e.g., secondary syphilis, herpes, and varicella zoster). Historically, sporadic accounts of patients co-infected with *Monkeypox virus* and other infectious agents (e.g., varicella zoster, syphilis) have been reported, so patients with a characteristic rash should be considered for testing, even if other tests are positive.

**A person presenting with lymphadenopathy or fever without any clinically compatible rash lesions must meet a higher risk epidemiologic risk criterion for reporting

Specimen Collection Instructions, MDHHS BOL

- BOL can provide *Orthopoxvirus* testing on specimens that clinicians obtain from suspected patients. [Appropriately collected samples](#) can be sent to MDHHS Bureau of Laboratories (BOL). Samples will be tested daily, M-F.
- Test request form [DCH-1396](#) labeled Vaccinia/Variola/Pox Virus is the proper form. For questions about specimen collection and submission, contact the BOL at 517-335-8063.
 - Acceptable specimens include the following (See page 6 for instructions):
 1. **Dry swab of lesion -2 dry swabs required for PCR testing at BOL and CDC (Do not place swab into transport media)**
 - a. 1) Vigorously swab or brush lesion with two separate sterile dry synthetic swabs (nylon, polyester or Dacron);
 - b. 2) Break off end of applicator of each swab into a 1.5- or 2-mL screw-capped tube with O-ring or place each entire swab in a separate sterile container (e.g., sterile urine cup-swabs from single site can go in the same container). Write collection site on tube or cup.
 - c. **No more than 3 sites/swabs per patient will be tested.** If more than specimens are submitted, the laboratory will select those for testing based on site (genital, anal, etc., or presence of visible clinical material on the swab.
- Store: Refrigerate (2-8°C) or freeze (-20°C or lower) specimens within an hour after collection. If specimens are refrigerated send to BOL on cold packs and if frozen send on dry ice. Refrigerated specimens can be stored for up to 7 days and frozen specimens may be stored for up to a month.
- Ship clinical specimens following category B packaging and shipping guidelines.

Additional Resources

[CDC 2022 U.S. Monkeypox Outbreak](#)

[MDHHS MPV Website](#)

[MDHHS CD Info](#)

[MDHHS Lab Services](#)

