LENAWEE COUNTY
HEALTH DEPARTMENT

HEALTH INFORMATION FOR HEALTH CARE PROVIDERS

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Monkeypox Virus Infection in the United States and Other Non-endemic Countries—2022

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Information about monkeypox virus infection may change as more information is known. Below is language from a recently distributed CDC HAN, with Michigan-specific information related to reporting of suspect/confirmed cases to state and local public health and testing through the Michigan Department of Health and Human Services (MDHHS) Bureau of Laboratories.

CDC has a new webpage for the 2022 Monkeypox situation:
https://www.cdc.gov/poxvirus/monkeypox/outbreak/current.html

Summary
The Massachusetts Department of Public Health and the Centers for Disease Control and Prevention (CDC) are investigating a confirmed case of monkeypox in the United States. On May 17, 2022, skin lesions that had several features suspicious for monkeypox—firm, well circumscribed, deep-seated, and umbilicated lesions—on a Massachusetts resident prompted specialized Laboratory Response Network (LRN) testing of swab specimens collected from the resident; preliminary testing confirmed the presence of DNA consistent with an orthopoxvirus using Orthopoxvirus generic and non-variola Orthopoxvirus real-time polymerase chain reaction (PCR) assays. This group of viruses includes monkeypox virus (the causative agent of monkeypox). Testing at CDC on May 18 confirmed the patient was infected with a West African strain of monkeypox virus. The patient is currently isolated and does not pose a risk to the public.

Cases of monkeypox have previously been identified in travelers from, or residents of, West African or Central African countries where monkeypox is considered to be endemic. CDC is issuing this Health Alert Network (HAN) Health Advisory to ask clinicians in the United States to be vigilant to the characteristic rash associated with monkeypox.

Suspicion for monkeypox should be heightened if the rash occurs in people who:

1) traveled to countries with recently confirmed cases of monkeypox,
2) report having had contact with a person or people who have a similar appearing rash or received a diagnosis of confirmed or suspected monkeypox, or
3) is a man who regularly has close or intimate in-person contact with other men, including those met through an online website, digital application ("app"), or at a bar or party.

    a. 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.

Background

Since May 14, 2022, clusters of monkeypox cases, have been reported in several countries that don't normally have monkeypox. Although previous cases outside of Africa have been associated with travel from Nigeria, most of the recent cases do not have direct travel-associated exposure risks. The United Kingdom Health Security Agency (UKHSA) was the first to announce on May 7, 2022, identification of a recent U.K. case that occurred in a traveler returning from Nigeria. On May 14, 2022, UKHSA announced an unrelated cluster of monkeypox cases in two people living in the same household who have no history of recent travel. On May 16, 2022, UKHSA announced a third temporally clustered group of cases involving four people who self-identify as gay, bisexual, or men who have sex with men (MSM), none of whom have links to the three previously diagnosed patients. Some evidence suggests that cases among MSM may be epidemiologically linked; the patients in this cluster were identified at sexual health clinics. This is an evolving investigation and public health authorities hope to learn more about routes of exposure in the coming days.

Monkeypox is a zoonotic infection endemic to several Central and West African countries. The wild animal reservoir is unknown. Before May 2022, cases outside of Africa were reported either among people with recent travel to Nigeria or contact with a person with a confirmed monkeypox virus infection. However, in May 2022, nine patients were confirmed with monkeypox in England; six were among persons without a history of travel to Africa and the source of these infections is unknown.

Monkeypox disease symptoms always involve the characteristic rash, regardless of whether there is disseminated rash. Historically, the rash has been preceded by a prodrome including fever, lymphadenopathy, and often other non-specific symptoms such as malaise, headache, and muscle aches. In the most recent reported cases, prodromal symptoms may not have always occurred; some recent cases have begun with characteristic, monkeypox-like lesions in the genital and perianal region, in the absence of subjective fever and other prodromal symptoms. For this reason, cases may be confused with more commonly seen infections (e.g., syphilis, chancroid, herpes, and varicella zoster). The average incubation period for symptom onset is 5–13 days.

The typical 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. Synchronized progression occurs on specific anatomic sites with lesions in each stage of development for at least 1–2 days. The scabs eventually fall off[1]. Lesions can occur on the palms and soles, and when generalized, the rash is very similar to that of smallpox including a centrifugal distribution. Monkeypox can occur concurrently with other rash illnesses, including varicella-zoster virus and herpes simplex virus infections. Case fatality for monkeypox is reported to range between 1 and 11%. Confirmatory laboratory diagnostic testing for monkeypox is performed using real-time polymerase chain reaction assay on lesion-derived specimens.

A person is considered infectious from the onset of symptoms and is presumed to remain infectious until lesions have crusted, those crusts have separated, and a fresh layer of healthy skin has formed underneath. Human-to-human transmission occurs through large respiratory droplets and by direct contact with body fluids or lesion material. Respiratory droplets generally cannot travel more than a few feet, so prolonged face-to-face contact is required. Indirect contact with lesion material through fomites has also been documented. Animal-to-human transmission may occur through a bite or scratch, preparation of wild game, and direct or indirect contact with body fluids or lesion material.

There is no specific treatment for monkeypox virus infection, although antivirals developed for use in patients with smallpox may prove beneficial[2]. Persons with direct contact (e.g., exposure to the skin, crusts, bodily fluids, or other materials) or indirect contact (e.g., presence within a six-foot radius in the absence of an N95 or filtering respirator for ≥3 hours) with a patient with monkeypox should be monitored by health departments; depending on their level of risk, some persons may be candidates for post-exposure prophylaxis with smallpox vaccine under an Investigational New Drug protocol after consultation with public health authorities.

Recommendations for Clinicians

- If clinicians identify patients with a rash that could be consistent with monkeypox, especially those with a recent travel history to a country where monkeypox has been reported, 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. 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 rash associated with monkeypox can be confused with other diseases that are more commonly encountered in clinical practice (e.g., secondary syphilis, herpes, chancroid, and varicella zoster). However, a high index of suspicion for monkeypox is warranted when evaluating people with the characteristic rash, particularly for the following groups: men who report sexual contact with other men and who present with lesions in the genital/perianal area, people reporting a significant travel history in the month before illness onset or people reporting contact with people who have a similar rash or have received a diagnosis of suspected or confirmed monkeypox.

- Information on infection prevention and control in healthcare settings is provided on the CDC website: Infection Control: Hospital | Monkeypox | Poxvirus | CDC. CDC is currently reviewing this information to consider the need for updates.

- Clinicians should consult their local health department if they suspect monkeypox; if the local health department cannot be reached, notify MDHHS Bureau of Infectious Disease Prevention for case evaluation and specimen testing coordination at 517-335-8165 or, if afterhours, at 517-335-9030.
    - All specimens should be sent through the state public health department.

- Monkeypox is a reportable condition in the State of Michigan and must be reported to public health. Michigan's communicable disease rules are promulgated under the authority conferred on the Department of Health and Human Services by section 5111 of Act No. 368 of the Public Acts of 1978, as amended, being 333.5111 of the Michigan Compiled Laws.

Reportable Diseases in Michigan by Condition & Local Health Jurisdiction Contact Information: https://www.michigan.gov/mdhhs/-/media/Project/Websites/mdhhs/Folder1/Folder87/2018_MDHHS_Reportable_Diseases_in_Michigan_by_Condition_BW.pdf?rev=862f7e1c76d14abf9f5d7b6cb21b8ada&hash=D4941FEFCAD8144098C10CD1758C1A85

Recommendations for Health Departments

- Enter any suspect monkeypox cases into the Michigan Disease Surveillance System (MDSS) under the Reportable Condition: Unusual Outbreak or Occurrence.
- On the case report form, enter **monkeypox2022** in the "Outbreak Name" field under the "Investigation Information Section."
- Immediately notify the Emerging & Zoonotic Infectious Disease Section (EZID) for case evaluation and specimen testing coordination at 517-335-8165 or, if afterhours, at 517-335-9030.
- Appropriately collected samples can be sent to MDHHS Bureau of Laboratories (BOL). Weekend testing may be available with prior approval.
- BOL can provide orthopoxvirus testing on specimens that clinicians obtain from suspected patients. Test request form DCH-1396 labeled Vaccinia/Variola/Pox Virus is the proper form.
    - Acceptable specimens include the following:
        1. Dry or wet swab of lesion (DRY swab preferred for PCR)
        2. Dried vesicular fluid on a slide (touch prep).
        3. Fresh biopsy (no formalin)
        4. Skin crust from roof of vesicle

Collect multiple specimens for preliminary and confirmatory testing as follows: 1) Vigorously swab or brush lesion with two separate sterile dry polyester or Dacron swabs; 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. Do not add or store in viral or universal transport media.

- 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 HAN Health Advisory with relevant healthcare provider networks, including Sexually-Transmitted Infections (STI) clinics that may not always receive CDC HAN messages.

Recommendations for the Public

- Based on limited information available at this time, risk to the public appears low. Some people who may have symptoms of monkeypox, such as characteristic rashes or lesions, should contact their healthcare provider for a risk assessment. This includes anyone who 1) traveled to countries where monkeypox cases have been reported 2) reports contact with a person who has a similar rash or received a diagnosis of confirmed or suspected monkeypox, or 3) is a man who has had close or intimate in-person contact with other men in the past month, including through an online website, digital application ("app"), or at a bar or party.

References

[1] Clinical Recognition of Monkeypox: https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html

[2] Antivirals: https://www.cdc.gov/poxvirus/monkeypox/clinicians/treatment.html

This alert is also posted on the Lenawee County Health Department website at :
http://www.lenawee.mi.us/187/Health-Department then click on *SERVICES* and then *INFORMATION FOR HEALTHCARE PROVIDERS .*