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

The Louisiana Department of Health (LDH) is issuing this monkeypox health alert to provide Louisiana healthcare providers with specific monkeypox reporting and specimen submission guidance. Full details of current investigations in Massachusetts and the United Kingdom can be found in CDC’s May 20, 2022, HAN health advisory.

Louisiana healthcare providers should report all suspected cases of monkeypox to the Louisiana Department of Health’s (LDH) Infectious Disease Epidemiology (IDEpi) 24/7 clinician hotline: 800-256-2748.

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. Non-endemic monkeypox clusters have also been identified in the United Kingdom, Spain and Portugal. As of May 21, 2022, 92 laboratory confirmed cases and 28 suspected cases of monkeypox have been reported to the World Health Organization (WHO) from 12 countries that are not endemic for monkeypox virus. No travel links to endemic areas have been established for cases reported to date. WHO reports that cases have mainly but not exclusively been identified among men who have sex with men (MSM) seeking care in primary care and sexual health clinics.

LDH is asking clinicians in Louisiana to be vigilant to the characteristic rash associated with monkeypox- firm, well circumscribed, deep-seated, and umbilicated lesions. 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.

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

**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. 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. 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 Louisiana 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.

**Monkeypox reporting and specimen collection**

Louisiana clinicians should call IDEpi’s 24/7 clinician hotline to immediately report suspect monkeypox: 800-256-2748.

IDEpi must approve all specimens prior to submission to the Louisiana State Public Health Laboratory (SPHL). Epidemiologists will provide detailed guidance regarding specimen submission upon approval. At a minimum, multiple lesion swabs should be collected as follows:

- Swab or brush lesion vigorously with two separate sterile dry swabs. Use a sterile nylon, polyester, or Dacron swab with a plastic, wood, or thin aluminum shaft. Do not use other types of swabs.
- Place swabs in individual sterile containers. **DO NOT ADD ANY VIRAL OR UNIVERSAL TRANSPORT MEDIA.**
- Refrigerate (2–8°C) or freeze (-20°C or lower) specimens within an hour after collection.
- One dry swab will be tested at the Louisiana SPHL. For specimens that test presumptively positive at the SPHL, the second dry swab will be forwarded to CDC for *Monkeypox virus*-specific testing.

**References**

1. Clinical Recognition of Monkeypox
2. Antivirals