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State Health Advisory

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

Wyoming Department of Health

May 23, 2022

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. Since May 14, 2022, clusters of monkeypox have been reported in several countries that do not normally have monkeypox. Healthcare providers are asked to be vigilant to the characteristic rash associated with monkeypox and epidemiologic factors that may increase the likelihood of monkeypox infection. The Wyoming Department of Health (WDH) asks providers to report suspected cases of monkeypox to WDH.

The CDC's Health Advisory released on May 20, 2022 can be found here:

<https://emergency.cdc.gov/han/2022/han00466.asp>

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 confirmed monkeypox virus infection. However, in May 2022, nine patients were confirmed with monkeypox in the United Kingdom; six were among persons without a history of travel to Africa and the source of these infections is not known. Clusters within the United Kingdom have been associated with a household and individuals who identify as gay, bisexual, or men who have sex with men (MSM). Some evidence suggests that cases among MSM may be epidemiologically linked; the patients in the United Kingdom cluster were identified at sexual health clinics. Monkeypox virus infections have also been identified in Portugal, Spain, and the United States. On May 18, 2022, monkeypox was confirmed in an individual in Massachusetts who had recent travel to Canada. Investigation into this case is ongoing. Public health authorities are currently investigating these non-travel-associated cases and clusters of monkeypox to understand the source of infections and routes of exposure.

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 myalgia. In the most recent reported cases, prodromal symptoms may not have always occurred; some recent cases have begun with characteristic monkey-pox lesions in the genital and perianal region in the absence of subjective fever and other prodromal symptoms. For these reasons, cases may be confused with more commonly seen infections (e.g., syphilis, chancroid, herpes, and varicella zoster). The average incubation period between infection and symptom onset is 5-13 days.

The typical monkeypox lesions are deep-seated and well-circumscribed, often with central umbilication. The lesions progress 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 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, body 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

1. 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 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. Additional information on monkeypox from the CDC can be found here:

<https://www.cdc.gov/poxvirus/monkeypox/index.html>

2. Information on infection prevention and control in healthcare settings is provided on the CDC website:
<https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-hospital.html>
3. Providers who suspect monkeypox in a patient should report the case to WDH immediately by calling the 24/7 public health emergency hotline at 1-888-996-9104. WDH can assist with arranging specimen testing.
4. Multiple specimens should be collected 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 1.5mL or 2mL 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.

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.



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State Health Advisory

Updated Guidance for Identification and Testing of Potential Monkeypox Infection

Wyoming Department of Health

June 16, 2022

Summary

Since May 2022, monkeypox cases have been identified in 18 states and territories among both persons returning from international travel and their close contacts domestically. Globally, more than 1,600 cases have been reported from more than 30 countries; the case count continues to rise daily. In the United States, evidence of person-to-person disease transmission in multiple states and reports of clinical cases with some uncharacteristic features have raised concern that some cases are not being recognized and tested.

This health advisory alerts clinicians to clinical presentations of monkeypox seen so far in the United States and to provide updated and expanded case definitions intended to encourage testing for monkeypox among persons presenting for care with a relevant history, signs, and symptoms. In people with epidemiologic risk factors, rashes initially considered characteristic of more common infections (e.g., varicella zoster, herpes simplex, syphilis) should be carefully evaluated for concurrent characteristic monkeypox rash and considered for testing.

An updated Centers for Disease Control and Prevention (CDC) health advisory released on June 14, 2022 can be found here: <https://emergency.cdc.gov/han/2022/han00468.asp>

Background

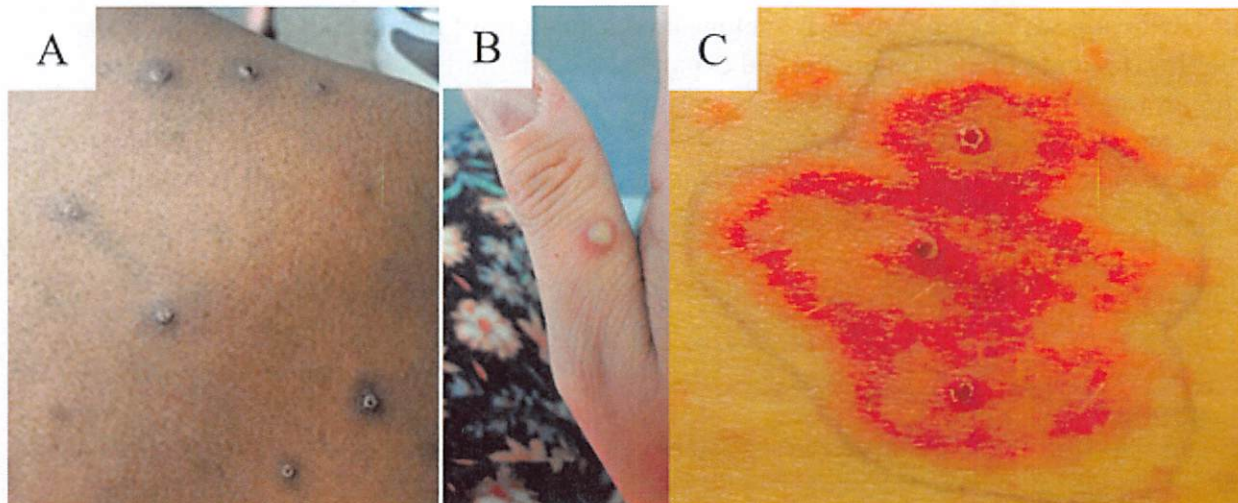
The current identification of West African monkeypox cases in many countries that do not have endemic disease and involving patients with no direct travel history to an area with endemic monkeypox suggests person-to-person community spread. Since May 17, 2022, 65 cases have been identified in 18 U.S. states and territories and more than 1,600 have been identified in 35 countries and territories that do not have endemic disease. The case fatality rate of monkeypox associated with the West African clade of monkeypox virus is 1%, and possibly is higher in immunocompromised individuals; no deaths have been reported globally from the current outbreak. Any person, irrespective of gender identity or sexual orientation, can acquire and spread monkeypox. In this outbreak, however, many of the reported cases in the United States

are among gay, bisexual, or other men who have sex with men (MSM). Close contact, sustained skin-to-skin contact, including sexual contact, with a person with monkeypox, or contact with contaminated fomites (e.g., shared linens) are the most significant risk factors associated with human-to-human transmission of *Monkeypox Virus*.

Clinical Presentations of Confirmed Cases to Date

Descriptions of classic monkeypox disease describe a prodrome including fever, lymphadenopathy, headache, and myalgia followed by development of a characteristic rash culminating in firm, deep-seated, well-circumscribed and sometimes umbilicated lesions. The rash usually starts on the face or in the oral cavity and progresses through several synchronized stages on each affected area and concentrates on the face and extremities, including lesions on the palms and soles.

Thus far in the U.S. outbreak, all patients diagnosed with monkeypox in the United States have experienced a rash or enanthem (see images below). Although the characteristic firm, deep-seated, well-circumscribed and sometimes umbilicated rash has been observed, the rash has often begun in mucosal areas (e.g., genital, perianal, oral mucosa) and, in some patients, the lesions have been scattered or localized to a specific body site rather than diffuse and have not involved the face or extremities. In some instances, patients have presented with symptoms such as anorectal pain, tenesmus, and rectal bleeding, which upon physical examination, have been found to be associated with visible perianal vesicular, pustular, or ulcerative skin lesions and proctitis. The lesions have sometimes been in different stages of progression on a specific anatomic site (e.g., vesicles and pustules existing side-by-side). In addition, prodromal symptoms including fever, malaise, headache, and lymphadenopathy have not always occurred before the rash if they have occurred at all.



Generalized monkeypox lesions are characteristically deep-seated, well-circumscribed, and often develop umbilication (A,B,C). Image A demonstrates both papulovesicular and pustular lesions in the same region of the body. Photographs of lesions can also be found at the following links:

<https://academic.oup.com/cid/article/71/8/e210/5734993>

<https://pubmed.ncbi.nlm.nih.gov/35656836/>

The clinical presentation of monkeypox may be similar to some sexually transmitted infections, such as syphilis, herpes, lymphogranuloma venereum, or other etiologies of proctitis. Clinicians should perform a thorough skin and mucosal (e.g., anal, vaginal, oral) examination for the characteristic vesiculo-pustular rash of monkeypox; this allows for detection of lesions of which the patient may not have been previously aware. The search for lesions consistent with monkeypox should be performed even if lesions consistent with those from more common infections (e.g. varicella zoster, herpes simplex, syphilis) are observed; this is particularly important when evaluating patients who have epidemiologic risk factors for monkeypox. Specimens should be obtained from lesions (including those inside the mouth, anus, or vagina) and tested for monkeypox.

Any patient who has a new rash that is characteristic of monkeypox or that meets epidemiologic risk criteria and the provider has high clinical suspicion for monkeypox (which may exist if lesions consistent with those from more common infections co-exist with lesions that may be characteristic of monkeypox) should be considered for testing and should be counseled to implement appropriate transmission precautions while awaiting test results. Patient epidemiologic risk criteria include the following:

- Reports having contact with a person or persons with a similar appearing rash or with a person who has received a diagnosis of confirmed or probable monkeypox OR
- Had close or intimate in-person contact with persons in a social network experiencing monkeypox infections. This includes MSM who meet partners through an online website, digital application (“app”), or social event (e.g., bar or party) OR
- Traveled, within 21 days of illness onset outside the United States to a country with confirmed cases of monkeypox (<https://www.cdc.gov/poxvirus/monkeypox/response/2022/world-map.html>) or where *Monkeypox Virus* is endemic (<https://www.cdc.gov/poxvirus/monkeypox/about.html>) OR
- 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...)

Any individual with positive Orthopoxvirus or Monkeypox virus test results should remain in isolation for the duration of their infectious period (i.e., until all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed). Patients who do not require hospitalization but remain potentially infectious to others should isolate at home. This includes abstaining from contact with other persons and pets, and wearing appropriate personal protective equipment (e.g., clothing to cover lesions, face mask) to prevent further spread.

Recommendations for Clinicians

1. Providers should call the Wyoming Department of Health Public Health Emergency Line at 1-888-996-9104 if they suspect a patient may have monkeypox infection.
2. Patients with rashes initially considered characteristic of more common infections (e.g., varicella zoster or sexually transmitted infections) should be carefully evaluated for a characteristic monkeypox rash. Submissions of specimens from lesions for testing should be considered if a rash consistent with monkeypox is present or if there is high clinical suspicion in a patient with epidemiologic risk factors.
3. Evaluate any individual presenting with perianal or genital ulcers, diffuse rash, or proctitis syndrome for sexually transmitted infectious per the 2021 CDC STI Treatment

Guidelines (<https://www.cdc.gov/std/treatment-guidelines/default.htm>). Testing for sexually transmitted infectious should be performed. The diagnosis of a sexually transmitted infection does not exclude monkeypox as a concurrent infection may be present. The clinical presentation of monkeypox may be similar to some sexually transmitted infections, such as syphilis, herpes simplex, lymphogranuloma venereum, or other etiologies of proctitis.

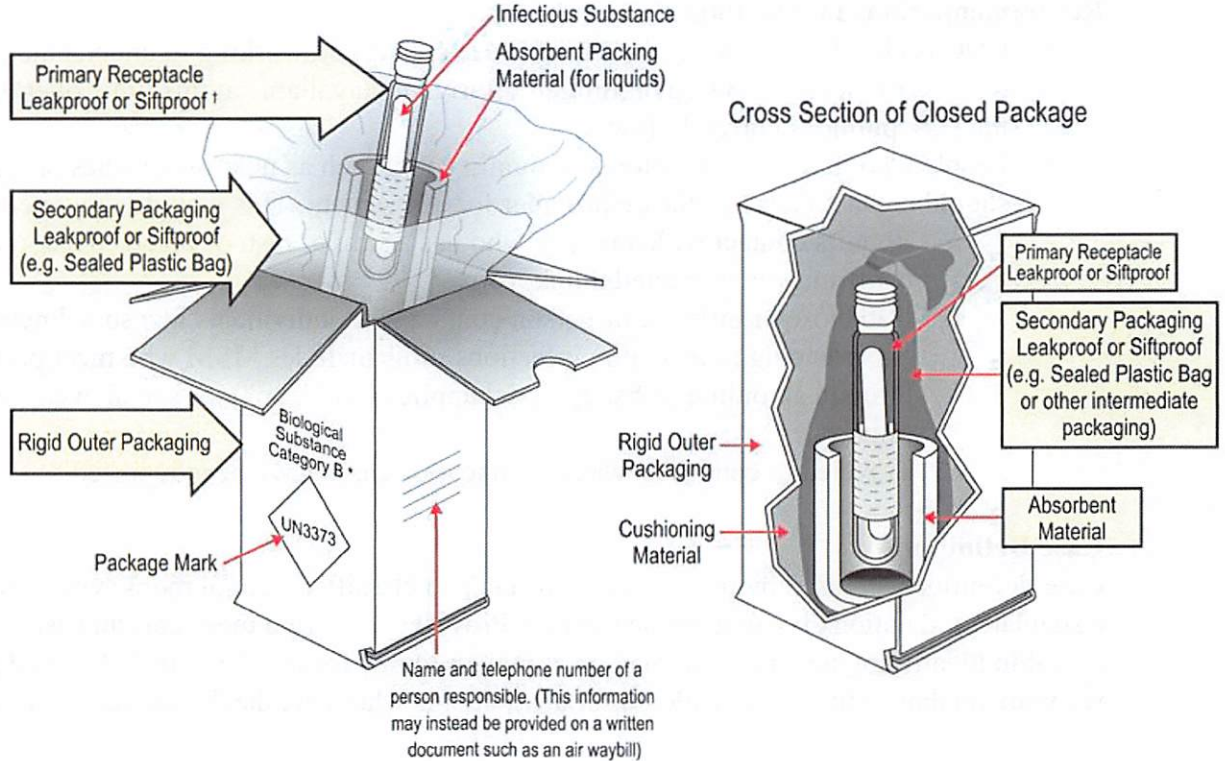
4. Clinicians should perform a thorough skin and mucosal (e.g., anal, vaginal, oral) examination for the characteristic vesiculo-pustular rash of monkeypox; this allows for detection of lesions of which the patient may not have been previously aware.
5. If the patient does not respond to sexually transmitted infection treatment as expected, the patient should return for follow-up evaluation and monkeypox testing should be considered.
6. Advise patients with prodromal symptoms (e.g., fever, malaise, headache) and one or more epidemiologic risk factors for monkeypox to self-isolate. If a rash does not appear within 5 days, the illness is unlikely to be monkeypox and alternative etiologies should be sought.
7. Individuals with a suspicious rash awaiting test results should be advised to self-isolate until testing is completed.
8. Clinicians should refer to CDC guidance for specimen collection to ensure proper collection of specimens. Multiple lesions in different stages of progression should be tested if possible. Two swabs should be used on each lesion, one for orthopox testing at the Wyoming Public Health Laboratory and one for confirmatory monkeypox testing at the CDC if needed.

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/prep-collection-specimens.html>

- a. Persons who collect specimens should use personal protective equipment in accordance with recommendations for healthcare settings (<https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-healthcare.html>). This includes gown, gloves, eye protection (i.e., goggles or a face shield that covers the front and sides of the face), and NIOSH-approved particulate respirator equipped with N95 filters or higher.
- b. Vigorously swab or brush lesion 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.
- c. 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 media¹.**
- d. Refrigerate (2-8°C) or freeze (-20°C or lower) specimens within an hour after collection. Store refrigerated specimens for up to 7 days and frozen specimens for up to 60 days. Refrigerated specimens should be sent within 7 days of collection; frozen specimens should be shipped within 60 days of collection. Shipping on dry ice is strongly recommended. Specimens received that are >8°C may be rejected.
- e. Package, label, and ship specimens as a Category B infectious substance (UN 3373) in accordance with U.S. Department of Transportation's Hazardous

¹ It is possible that CDC may accept specimens in viral transport media and may accept lesion crusts for testing. Please contact WDH if you have questions about specimen collection.

Materials Regulations and the International Air Transport Association Dangerous Good Regulations:



- Triple pack the specimens in:
 - Leakproof primary receptacle; multiple primary receptacles should be individually wrapped or separated
 - Leakproof secondary receptacle
 - Rigid or strong outer packaging
- Place absorbent material between the primary and secondary receptacle.
- Place a list of contents and paperwork between the secondary receptacle and outer packaging.
- Label outer package with:
 - Proper shipping name and UN 3373 certification mark
 - Shipper and consignee identification (name, address, and telephone)
 - Package orientation arrows if primary receptacle exceeds 50 mL or more
- f. One dry swab will be tested at the Wyoming Public Health Laboratory for presumptive results. A presumptive positive from the Wyoming Public Health Laboratory is sufficient to consider the patient infected with monkeypox and to initiate treatment if indicated and public health control measures. CDC will provide *Monkeypox Virus*-specific testing on the second dry swab if the first dry swab is positive.

9. Further details and guidance can be found on CDC’s website:
<https://www.cdc.gov/poxvirus/monkeypox/clinicians/index.html>

Recommendations for the Public

1. CDC is closely monitoring worldwide case counts and working to understand the cause of the current cases. Based on limited information available at this time, overall risk to the U.S. public is currently low.
2. People who may have symptoms of monkeypox, such as unknown rashes or lesions, should contact their healthcare provider for assessment. This includes anyone who:
 - a. Reports contact with a person who has a similar rash or received a diagnosis of confirmed or suspected monkeypox.
 - b. Had close or intimate in-person contact with individuals in a social network experiencing monkeypox infections. This includes MSM who meet partners through an online website, digital application (“app”), or social event (e.g., a bar or party).
 - c. Traveled to countries where monkeypox cases have been reported.

Case Definitions

Case definitions are used by public health officials to classify potential monkeypox infections in a standard and nationally comparable manner. Providers may find these current case definitions useful in identifying patients who may be at increased risk for monkeypox. WDH and CDC recommend that testing be considered for any patients who meet the “Suspected” criteria.

Clinical and Laboratory Classification	Criteria
Suspected	New characteristic rash ¹ OR
	Meets one of the epidemiologic criteria and has high clinical suspicion ² for monkeypox
Probable	No suspicion of other recent <i>Orthopoxvirus</i> exposure (e.g., <i>Vaccinia Virus</i> in ACAM2000 vaccination) AND demonstration of the presence of:
	<ul style="list-style-type: none"> ● <i>Orthopoxvirus</i> DNA by polymerase chain reaction testing of a clinical specimen OR
	<ul style="list-style-type: none"> ● <i>Orthopoxvirus</i> using immunohistochemical or electron microscopy testing methods OR
	<ul style="list-style-type: none"> ● Demonstration of detectable levels of anti-orthopoxvirus IgM antibody during the period of 4-56 days after rash onset
Confirmed	Demonstration of the presence of <i>Monkeypox Virus</i> DNA by

	polymerase chain reaction testing or next-generation sequencing of a clinical specimen OR
	Isolation of <i>Monkeypox Virus</i> in culture from a clinical specimen
Epidemiologic Classification	
Within 21 days of illness onset:	Reports having contact with a person or persons with a similar appearing rash or with a person who has received a diagnosis of confirmed or probable monkeypox OR
	Has close or intimate in-person contact with persons in a social network experiencing monkeypox infections. This includes MSM who meet partners through an online website, digital applications (“app”), or social event (e.g., a bar or party) OR
	Traveled, within 21 days of onset, outside the United States to a country with confirmed cases on monkeypox or where Monkeypox virus is endemic OR
	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...)
Exclusions	
A case might be excluded as a suspected, probable, or confirmed case if:	An alternative diagnosis ¹ can fully explain the illness OR
	A person with prodromal symptoms consistent with monkeypox does not develop a rash within 5 days of illness onset OR
	A case where high-quality specimens do not demonstrate the presence of <i>Orthopoxvirus</i> or <i>Monkeypox Virus</i> or antibodies to <i>Orthopoxvirus</i>

1. The characteristic rash associated with monkeypox lesions involves 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. The rash can sometimes be confused with other diseases that are more commonly encountered in clinical practice (e.g., syphilis, herpes simplex, 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 Monkeypox virus testing, even if tests for other infectious agents are positive.
2. Clinical suspicion may exist if lesions consistent with those from more common infections (e.g., syphilis, herpes simplex, and varicella zoster) co-exist with lesions that may be characteristic of monkeypox.



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State Health Advisory

Monkeypox Vaccine and Testing Update

Wyoming Department of Health

July 8, 2022

Summary

As of July 7, 2022, there have been over 600 cases of monkeypox diagnosed in the U.S. from 36 jurisdictions. Globally, over 7,000 cases have been reported across 54 countries. Community transmission of monkeypox is occurring in the United States, as many patients have no relevant travel history and no known contact with an individual with monkeypox. Reported cases primarily are in men who report sexual contact with other men (MSM). At this time, no monkeypox cases have been reported in Wyoming.

Major commercial laboratories have or will soon have the capability to perform clinical testing for monkeypox infection. Testing for monkeypox infection is currently available through Labcorp.

The U.S. Department of Health and Human Services (HHS) has begun distributing Jynneos vaccine, which is licensed for both pre-exposure and post-exposure prophylaxis against monkeypox infection, to jurisdictions. Wyoming will receive doses of Jynneos vaccine as early as the week of July 11, 2022, to be used for post-exposure prophylaxis of exposed individuals. At this time, Jynneos vaccine is only available through public health offices.

Clinician guidance, including guidance on identifying monkeypox infection, specimen collection, vaccines, and treatment options can be found from the CDC at the following link: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/index.html>

Monkeypox Testing

Diagnostic testing for monkeypox infection is currently available at Labcorp and through the Wyoming Public Health Laboratory (WPHL). Several other major commercial laboratories will begin to offer monkeypox testing in the coming weeks.

Providers who suspect monkeypox infection in a patient based on clinical presentation and/or epidemiologic risk factors may submit samples to Labcorp and other commercial

laboratories without contacting the Wyoming Department of Health (WDH) prior to submission. However, WDH requests that providers notify WDH of any patients for whom they have a high suspicion for monkeypox based on clinical presentation and epidemiologic risk factors. WDH also requests that providers notify WDH immediately on receiving positive monkeypox test results. Notifications can be made by calling the 24/7 public health emergency line at 888-996-9104.

Providers wishing to submit samples through the WPHL should continue to call the 24/7 public health emergency line at 888-996-9104.

Providers should instruct patients to self-isolate pending test results, taking particular care to avoid contact with individuals at higher risk for infection from monkeypox, including immunocompromised individuals, pregnant women, children <8 years of age, and individuals with a history of eczema or atopic dermatitis.

Epidemiologic risk factors associated with the current outbreak include:

- Contact with a person or persons with a similar appearing rash or with a person who has received a diagnosis of confirmed or probable monkeypox OR
- Close or intimate in-person contact with persons in a social network experiencing monkeypox infections. This includes MSM who meet partners through an online website, digital application (“app”), or social event (e.g., bar or party) OR
- Travel, within 21 days of illness onset outside the United States to a country with confirmed cases of monkeypox (<https://www.cdc.gov/poxvirus/monkeypox/response/2022/world-map.html>) or where *Monkeypox Virus* is endemic (<https://www.cdc.gov/poxvirus/monkeypox/about.html>) OR
- 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...)

Please see the Health Advisory dated June 16, 2022, for detailed information on clinical presentation of monkeypox associated with this outbreak and specimen collection and shipping instructions for submission through WPHL. Providers submitting to commercial laboratories should follow the specimen collection and shipping instructions provided by the commercial laboratory.

Monkeypox Vaccines

Jynneos is an FDA-approved vaccine for the prevention of monkeypox infection in individuals aged 18 and older. Jynneos is a live but non-replicating virus vaccine that is administered by subcutaneous injection as two doses spaced 28 days apart. Jynneos can be used for both pre-exposure and post-exposure prophylaxis. The current U.S. supply of Jynneos is limited.

ACAM-2000 is an FDA-approved vaccine for the prevention of smallpox in individuals aged 12 months and older. ACAM-2000 can be used under an expanded access investigational new drug protocol for pre-exposure and post-exposure prophylaxis against monkeypox infection. ACAM-2000 consists of live, replication-competent, *Vaccinia* virus and is administered as one dose through percutaneous injection. As a live, replicating virus vaccine, ACAM-2000 can cause serious adverse events in the vaccinated individual and can be transmitted to close contacts.

Contraindications to receiving ACAM-2000 include cardiac disease; eye disease treated with topical steroids; congenital or acquired immune deficiency disorders, including those taking immunosuppressive medications and people living with HIV (regardless of immune status); atopic dermatitis/eczema and persons with a history of atopic dermatitis/eczema or other acute or exfoliative skin conditions; infants less than 12 months of age; and pregnancy.

HHS is currently distributing Jynneos to jurisdictions to be used as post-exposure prophylaxis (PEP) among individuals with known high- or intermediate-risk (<https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html>) contact to an individual with monkeypox infection. PEP with Jynneos can also be considered for individuals who are likely to have been recently exposed to monkeypox through association with an event or location with known monkeypox transmission. PEP is most effective when given within 4 days of exposure; however, PEP given between 4-14 days after exposure may reduce symptoms if it does not prevent disease.

Starting as early as the week of July 11, 2022, Wyoming will receive Jynneos vaccine at several public health nursing offices across the state. In the event of monkeypox occurrence in Wyoming, WDH will work with providers to identify individuals eligible for Jynneos PEP and provide access to vaccine.

At this time, pre-exposure prophylaxis (PrEP) against monkeypox is indicated for the following:

- Clinical laboratory personnel who perform testing to diagnose orthopoxviruses, including those who use polymerase chain reaction (PCR) assays for diagnosis of orthopoxviruses, including *Monkeypox virus*
- Research laboratory workers who directly handle cultures or animals contaminated or infected with orthopoxviruses that infect humans, including *Monkeypox virus*, *replication-competent Vaccinia virus*, or *recombinant Vaccinia viruses derived from replication-competent Vaccinia virus strains*
- Certain healthcare and public health response team members designated by public health authorities to be vaccinated for preparedness purposes

People who can get PrEP if they want to receive it include healthcare personnel who administer ACAM2000 or anticipate caring for many patients with monkeypox.

At this time, most clinicians in the United States and laboratorians not performing the orthopoxvirus generic test to diagnose orthopoxviruses, including monkeypox, are not advised to receive orthopoxvirus PrEP.

Monkeypox Treatment

Many people infected with monkeypox virus have a mild, self-limiting disease course in the absence of specific therapy. However, the prognosis for monkeypox depends on multiple factors, such as previous vaccination status, initial health status, concurrent illnesses, and comorbidities, among others. Patients who should be considered for treatment following consultation with CDC might include:

- People with severe disease (e.g., hemorrhagic disease, confluent lesions, sepsis, encephalitis, or other conditions requiring hospitalization)

- People who may be at high risk of severe disease:
 - People with immunocompromise (e.g., human immunodeficiency virus/acquired immune deficiency syndrome infection, leukemia, lymphoma, generalized malignancy, solid organ transplantation, therapy with alkylating agents, antimetabolites, radiation, tumor necrosis factor inhibitors, high-dose corticosteroids, being a recipient with hematopoietic stem cell transplant <24 months post-transplant or ≥ 24 months but with graft-versus-host disease or disease relapse, or having autoimmune disease with immunodeficiency as a clinical component)
 - Pediatric populations, particularly patients younger than 8 years of age
 - People with a history or presence of atopic dermatitis, persons with other active exfoliative skin conditions (e.g., eczema, burns, impetigo, varicella zoster virus infection, herpes simplex virus infection, severe acne, severe diaper dermatitis with extensive areas of denuded skin, psoriasis, or Darier disease [keratosis follicularis])
 - Pregnant or breastfeeding women
 - People with one or more complications (e.g., secondary bacterial skin infection; gastroenteritis with severe nausea/vomiting, diarrhea, or dehydration; bronchopneumonia; concurrent disease or other comorbidities)
- People with monkeypox virus aberrant infections that include accidental implantation in eyes, mouth, or other anatomical areas where monkeypox virus infection might constitute a special hazard (e.g., the genitals or anus)

Currently there is no treatment approved specifically for monkeypox virus infections. However, antivirals developed for use in patients with smallpox may prove beneficial against monkeypox. These medical countermeasures are currently available from the Strategic National Stockpile (SNS) as options for the treatment of monkeypox. Specific information about the available antiviral therapies can be found here: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/treatment.html>

Providers treating patients who may benefit from antiviral therapies should contact WDH by calling the 24/7 public health emergency line at 888-996-9104.