Health Advisory: Mpox Caused by Human-to-Human Transmission of Monkeypox Virus Clade I with Geographic Spread in the Democratic Republic of the Congo

HEALTH ADVISORY **December 12, 2023**

Summary

With the increased number and geographical spread of mpox cases caused by Clade I monkeypox virus (MPXV) in the Democratic Republic of the Congo (DRC), the Texas Department of State Health Services (DSHS) recommends clinicians and public health

departments take action to quickly identify cases. Cases of Clade I MPXV, which may be more transmissible and cause more severe infection than Clade II, have not been reported in the United States at this time. However, clinicians should be aware of the possibility of Clade I MPXV in travelers who have been in DRC. Clinicians should notify their health department and pursue MPXV clade-specific testing if they have a patient with mpox-like symptoms and recent travel to DRC within 21 days of illness onset.

Vaccines and other medical countermeasures are available and expected to be effective for both Clade I and Clade II MPXV infections. However, vaccination coverage in the United States remains low. The Centers for Disease Control and Prevention (CDC) recommends that clinicians encourage vaccination for eligible patients.

Background

MPXV has two distinct genetic clades (subtypes of MPXV), Clade I and II, which are endemic to Central and West Africa, respectively. Clade IIb MPXV has been associated with the 2022-23 global outbreak that has predominately affected men who have sex with men (MSM). Clade I MPXV is capable of human-to-human spread but has previously not been associated with sexual routes of transmission. Additionally, Clade I has previously been observed to be more transmissible and to cause more severe infections than Clade II.

Since January 1, 2023, DRC has reported 12,569 suspected mpox cases and 581 deaths (5% of suspected mpox cases). This is a substantial increase from the median 3,767 suspected mpox cases reported annually in DRC (https://www.cdc.gov/mmwr/volumes/72/wr/mm7203a4.htm?s_cid=mm7203a4_w) during the years 2016-2021. Clade I MPXV has been confirmed among cases for which testing was conducted. A recent World Health Organization (WHO) report

(https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON493) noted that mpox cases in 2023 have been reported in more DRC provinces than in previous years (i.e., 22 of 26 provinces). This includes cases in urban settings where mpox does not normally occur. Outbreaks of Clade I MPXV associated with sexual contact, including among MSM, have been reported for the first time in DRC. Mpox vaccination is not generally available in DRC.

CDC has performed clade-specific testing for 150 MPXV or orthopoxvirus cases in 2023 (~12% of U.S. cases); no Clade I MPXV infections have been detected thus far. There are no direct commercial passenger flights from DRC to the United States, and **the current threat for Clade I MPXV in travelers remains low**.

Clade II MPXV infections continue to occur in Texas the United States (https://www.cdc.gov/poxvirus/mpox/response/2022/mpx-trends.html). From January 1 to December 7, 2023, 146 mpox cases were reported in Texas. DSHS and the CDC encourage clinicians to continue to be alert for patients presenting with lesions consistent with mpox (https://www.cdc.gov/poxvirus/mpox/clinicians/clinical-recognition.html#:~:text=Key%20Characteristics%20for%20Identifying%20Mpox%201%20Lesions%20are,few%20lesions%20or%20only%20a%20single%20lesion.%20).

Recommendations for Clinicians

Clinical Evaluation and Diagnosis

Clinicians should continue to consider mpox when evaluating the cause of rashes. Mpox lesions (https://www.cdc.gov/poxvirus/mpox/clinicians/clinical-recognition.html), associated with both Clade I and II, may be small, firm, and rubbery, deep-seated, and well-circumscribed, or they may be large, with diffuse, centrifugal lesion distribution. Lymphadenopathy may also be present. During the Clade II outbreak,

among people with severe immunocompromise (e.g., due to advanced HIV with CD4 <200 or solid organ transplantation), rash lesions have generally been diffusely distributed, appearing large, necrotic, and fungating (i.e., appearing or progressing like a fungal infection). Consideration of mpox should be heightened in patients who have epidemiologic characteristics (https://www.cdc.gov/poxvirus/mpox/clinicians/case-definition.html#epi) supportive of mpox, including travel from mpox-endemic regions such as DRC within 21 days of illness onset.

Diagnostic Testing

When evaluating patients for mpox, clinicians should take a detailed travel history. **For patients with travel to DRC within 21 days of illness onset, DSHS and CDC recommend that clinicians pursue MPXV clade-specific testing.** As clade-specific testing for MPXV is not routinely available at most commercial, reference, and hospital laboratories, clinicians should consult with their local health department (/regional-local-health-operations/public-health-regions/texas-local-public-health) (LHD) to arrange for testing by CDC. Since they are tested under surveillance, patient reports will not be sent back to the submitter.

As a select agent, clinicians must report any confirmed or suspected case for Clade I MPXV by the most expeditious means available per Texas Administrative Code (TAC) Chapter 97: §97.3.

All regulations should be followed for packaging and transporting specimens (https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2020-04/Transporting%20Infectious%20Substances%20Safely.pdf) from suspect mpox patients as Category B (https://www.cdc.gov/poxvirus/mpox/lab-personnel/lab-procedures.html#anchor_1663782328551) for diagnostic testing. Please refer to the most recent CDC guidance for submitting speci-

mens to CDC (https://www.cdc.gov/laboratory/specimen-submission/detail.html?CDCTestCode=CDC-10515). Specimens that cannot be accepted for clinical testing under Clinical Laboratory Improvement Amendments (CLIA) will be redirected for surveillance purposes and tested, helping to provide critical data on the mpox clade(s) circulating in the United States.

When collecting and submitting specimens for MPXV clade-specific testing:

- Coordinate submission with the LHD to ensure appropriate testing is utilized
- Follow appropriate specimen collection guidelines
- Do NOT submit specimens in viral transport media
- Do NOT unroof or aspirate lesions or otherwise use sharp instruments due to the risk of sharps injury

To enhance state and national surveillance, DSHS is asking laboratories to submit extracts of Clade II specimens to the DSHS lab for genetic sequencing. This does not apply to labs already sending duplicate specimens to the CDC.

Treatment and Prevention

Medical countermeasures (https://www.cdc.gov/poxvirus/mpox/clinicians/treatment.html#anchor_1655488233196) (e.g., tecovirimat, brincidofovir, and vaccinia immune globulin intravenous) that have been used during the ongoing Clade II MPXV outbreak in the United States are expected to be effective for Clade I MPXV infections. The LHD should be consulted promptly for any mpox cases for which severe manifestations might occur. Tecovirimat is available through the STOMP trial and Investigational New Drug (IND) protocol (https://www.cdc.gov/poxvirus/mpox/clinicians/obtaining-tecovirimat.html). For patients that decline or are ineligible for enrollment in the STOMP trial or require intravenous Tecovirimat

treatment, providers may submit requests for tecovirimat to dshsmpxconsult@dshs.texas.gov (mailto:dshsmpxconsult@dshs.texas.gov). DSHS will continue to coordinate the approval and delivery of Tecovirimat and other therapeutics.

The standard level of care should be provided to patients presenting with mpox, even if Clade I MPXV is suspected. Clinicians, healthcare facilities, and laboratories should continue following recommended infection prevention and control guidance.

Vaccination with JYNNEOS or ACAM2000 or prior MPXV infection should provide antibodies that will provide cross-protection to other orthopoxviruses, including Clade I MPXV. The Advisory Committee on Immunization Practices (ACIP) (https://www.cdc.gov/vaccines/acip/recommendations.html) recommends that people ≥18 years of age with risk factors for mpox (https://www.cdc.gov/poxvirus/mpox/clinicians/vaccines/vaccine-basics-healthcare.html#eligibility-criteria) be vaccinated, before an exposure, with two doses of the JYNNEOS vaccine 28 days apart unless they were previously infected with mpox or already received two doses. The JYNNEOS vaccine may be given to anyone who requests mpox vaccination; patients should consult with their provider to discuss vaccination. There is no recommendation regarding vaccination for travelers who do not otherwise meet the eligibility criteria. People who have only received one dose of the JYNNEOS vaccine should receive the second dose as soon as possible, regardless of the amount of time that has elapsed since the first dose.

Infection Prevention and Control

Healthcare personnel (https://www.cdc.gov/poxvirus/mpox/clinicians/infection-control-healthcare.html) who evaluate and provide care to patients with

mpox and laboratory personnel (https://www.cdc.gov/poxvirus/mpox/lab-personnel/lab-procedures.html) should continue to follow existing CDC guidance on infection prevention and control for mpox. These are effective in minimizing transmission.

Recommendations for Public Health

When investigating cases of mpox, LHD investigators should take a detailed travel history. For patients with travel to DRC within 21 days of illness onset, clade-specific testing should be performed at CDC. Consultation with the Emerging and Acute Infectious Disease Unit (EAIDU) and the DSHS Laboratory in Austin is required prior to submitting specimens. LHDs should contact the appropriate Public Health Region (PHR) and EAIDU (EAIDUMonitoring@dshs.texas.gov (mailto:EAIDUMonitoring@dshs.texas.gov)) to request testing. After approval, specimens should be submitted directly from the healthcare facility to CDC to expedite testing.

If a case of mpox caused by Clade I MPXV is identified, additional specimens collected from the case or for public health follow up of close contacts should be submitted directly to the appropriate Laboratory Response Network (/laboratory-services/programs-laboratories/emergency-response/emergency-response-laboratory-response/emergency-response-laboratory-response-contacts) facility for testing. Specimens associated with a known Clade I case should NOT be submitted to a commercial or hospital laboratory.

For cases without travel to DRC within 21 days of illness onset, LHDs and PHRs are also encouraged to submit specimens from confirmed and probable mpox cases to the DSHS Laboratory in Austin for enhanced surveillance by genetic sequencing.

Recommendations for the Public

There are no known cases of Clade I MPVX in the United States currently.

- Individuals with high potential for exposure to mpox (https://www.cdc.gov/poxvirus/mpox/vaccines/vaccine-recommendations.html) should consider and discuss vaccination against mpox with their healthcare provider.
- Individuals that previously received only one JYNNEOS vaccine dose should receive a second dose as soon as possible as two doses provide greater protection. There is no need to restart the vaccine series if there was a delay in receiving the second dose.

- People who are vaccinated should continue to avoid close, skin-to-skin contact with someone who has mpox.
- People who develop a new, unexplained skin rash should avoid close contact with others and visit a healthcare provider.

- CDC has issued a Travel Health Notice (https://wwwnc.cdc.gov/travel/notices/level2/mpox-democratic-republic-of-congo) for people traveling to DRC. People who have traveled to DRC should seek medical care at once if they develop a new, unexplained skin rash (lesions on any part of the body), with or without fever and chills (https://www.cdc.gov/poxvirus/mpox/symptoms/index.html), and avoid contact with others.

For More Information

- DSHS Mpox Website (/monkeypox)
- CDC Clinical Recognition (https://www.cdc.gov/poxvirus/mpox/clinicians/clinical-

recognition.html)
- CDC Clinical Guidance (https://www.cdc.gov/poxvirus/mpox/clinicians/clinical-guidance.html)
- Infection Control in Healthcare Settings (https://www.cdc.gov/poxvirus/mpox/clinicians/infection-control-healthcare.html)
- Biosafety Laboratory Guidance for Handling and Processing Mpox Specimens (https://www.cdc.gov/poxvirus/mpox/lab-personnel/lab-procedures.html)
- Vaccination Basics for Healthcare Professionals (https://www.cdc.gov/poxvirus/mpox/clinicians/vaccines/vaccine-basics-healthcare.html)
- Case Definitions for Use in the 2022 Mpox Response (https://www.cdc.gov/poxvirus/mpox/clinicians/case-definition.html)
- Treatment Information for Healthcare Professionals (https://www.cdc.gov/poxvirus/mpox/clinicians/treatment.html)
- Disease Reporting Contacts (/idps-investigation-forms/disease-reporting-contacts)
- CDC Mpox Vaccine Recommendations (https://www.cdc.gov/poxvirus/mpox/vaccines/vaccine-recommendations.html)
- Mpox Signs and Symptoms (https://www.cdc.gov/poxvirus/mpox/symptoms/index.html)

Subscribe to our email list

Sign up to receive DSHS email and text updates

Sign up for Updates (https://public.govdelivery.com/accounts/TXHHSC/subscriber/new?topic_id=TXHHSC_85)