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**Healthcare Provider Health Advisory:
Managing Monkeypox Virus Infection in California
Updated June 23, 2022**

NOTE: THIS IS A RAPIDLY EVOLVING SITUATION. UPDATES AND MODIFICATIONS TO THIS INFORMATION WILL BE PROVIDED AS THEY BECOME AVAILABLE.

This alert provides updated information for California healthcare providers in the evaluation and management of suspected monkeypox cases. Thank you for your tireless work in helping to keep Californians healthy.

I. Situation Summary as of June 23, 2022

The California Department of Public Health (CDPH) continues to work with local health departments (LHDs) and California healthcare providers on the ongoing monkeypox situation impacting the United States and other countries not usually endemic for monkeypox. As of June 23, 2022, there are over 3,500 suspected or confirmed cases of monkeypox reported from 44 non-endemic countries in the current outbreak (beginning in May 2022). In the United States, there have been 173 confirmed cases from 25 states, including 59 California residents. Reports from investigations in several countries and the U.S., including in California, suggest that person-to-person transmission through close contact is fueling spread and that clinical case presentations have not always been characteristic of classic monkeypox infections.

Monkeypox testing is currently available through 10 public health laboratories in California, but capacity is limited. CDPH is working with partners to identify additional testing laboratories and to increase testing capacity. At this time, we ask that health care providers work with their LHD to determine patients meet clinical and epidemiological criteria for monkeypox virus testing.

Please also refer to the U.S. Centers for Disease Control and Prevention (CDC) Health Alert Network (HAN) document that was released on June 14, 2022 for additional information on the U.S. monkeypox situation and efforts to improve case-finding: [HAN Archive - 00468 | Health Alert Network \(HAN\) \(cdc.gov\)](#)

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II. Background

Since the first case of monkeypox in the U.S. in 2022 was diagnosed in a traveler who returned to Massachusetts from Canada on May 17, the number of reported cases have continued to increase. The strain circulating in the U.S. and globally has been a clade that causes milder illness. One death associated with monkeypox infection has been reported worldwide to the World Health Organization (WHO) in 2022 to date. In California, none of the patients with monkeypox infection have required hospitalization, but cases can involve sensitive areas, such as genital and perianal areas, and be severe in certain people, such as those who are immunocompromised.

Close, sustained skin-to-skin contact, including sexual contact, with a person with monkeypox appears to be the most significant risk factor associated with transmission among recent cases. In this outbreak, many of the reported cases have been among gay, bisexual, or other men who have sex with men (MSM). However, it is important to remember that any person, irrespective of gender identity or sexual orientation, can acquire and spread monkeypox.

III. Evaluation of a Patient with Suspected Monkeypox Infection

Considerations

The classic presentation of monkeypox infection includes a flu-like illness lasting a few days, followed by the appearance of a characteristic rash. Presenting symptoms can include fever, chills, a distinctive rash, and/or new lymphadenopathy; the appearance of the rash typically evolves rapidly and sequentially from macules (lesions with a flat base) to papules (slightly raised firm lesions), vesicles (lesions filled with clear fluid), pustules (lesions filled with yellowish fluid), and crusts which dry up and fall off.

Thus far, in the U.S. outbreak ([Monkeypox Outbreak — Nine States, May 2022](#)), some notable features of infected people have included:

- All have developed a rash;
- The rash has often begun in mucosal, genital, or perianal areas;
- The lesions have at times been scattered or localized to a body site rather than diffuse;
- Lesions have sometimes been in different stages of progression;
- Not all have had classic prodromal symptoms;
- Presenting symptoms have included anorectal pain, tenesmus, and rectal bleeding associated with perianal lesions and proctitis.

History

Monkeypox infections in the current outbreak may not be classical in appearance or progression. Therefore, the patient history is particularly important for identifying possible monkeypox cases.

Suggestive history includes:

- Close 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; and/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., a bar, bathhouse, or party)

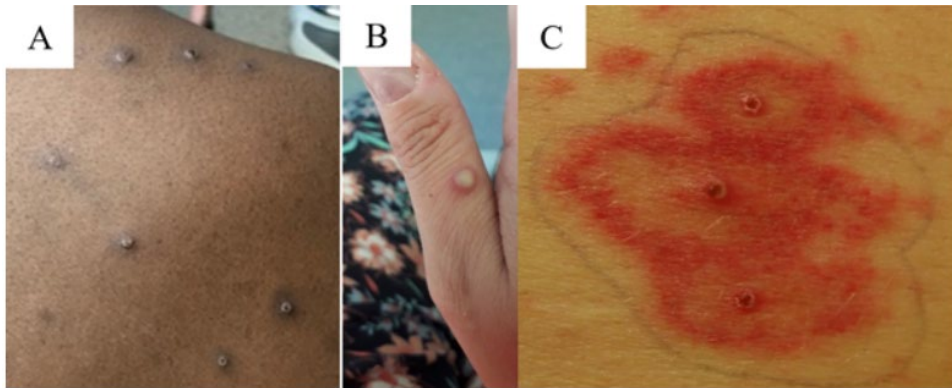
Physical Exam

- The rash associated with monkeypox classically 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 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.
- However, presentations in this outbreak have not always been classic. Patients have experienced rashes without prodromal symptoms, rashes that are at different stages within an affected area, or rashes that do not involve the face or extremities but only the genital and/or perianal areas.
- Clinicians should perform a thorough skin and mucosal (e.g., anal, vaginal, oral) examination for the characteristic vesicular or pustular rash of monkeypox; this allows for detection of lesions that the patient had not previously been aware of.

Differential Diagnosis

Patients presenting with perianal or genital ulcers, diffuse rash, or proctitis should be evaluated for STIs. However, the diagnosis of an STI does not exclude monkeypox as a concurrent infection may be present. The clinical presentation of monkeypox may be similar to some STIs, such as syphilis, herpes, lymphogranuloma venereum (LGV), or other etiologies of proctitis.

Figure 1: Images of monkeypox, from the CDC Health Alert Network, 6/14/2022



Questions around testing for other STIs may be submitted online through the Sexually Transmitted Diseases Clinical Consultation Network (STDCCN, stdccn.org). STDCCN is staffed during normal business hours by STD subject matter experts who will respond to your question in 1-5 business days per your request.

IV. Collection of Specimens for Monkeypox Virus Testing

CDPH requests that health care providers report cases of persons meeting the definition of a Suspect Case ([Case Definitions† for Use in the 2022 Monkeypox Response | Monkeypox | Poxvirus | CDC](#)) to their LHD: [LHD Contact Information \(ca.gov\)](#) to determine eligibility for testing.

As of June 23, 2022, no commercial testing is available for the diagnosis of monkeypox. Laboratory testing capacity for monkeypox in California remains limited at this time. Due to biosafety and biosecurity considerations for orthopoxviruses, testing with currently available protocols is recommended only in a Biosafety Level-3 (BSL) laboratory or under BSL-3 conditions. Currently, California has 10 public health laboratories, called Laboratory Response Network (LRN-B) labs, that can test for monkeypox, including the CDPH Viral and Rickettsial Disease Laboratory (VRDL). CDPH is exploring options to increase testing availability in California. We ask that until testing capacity increases, testing be reserved for those who are most likely to have monkeypox, based on CDC's definition of a Suspect Case and consideration of epidemiologic factors in consultation with the LHD.

Importantly, any patient who meets the definition of a Suspected Case should be counseled to implement appropriate transmission precautions (see below Infection Control), including isolation, immediately while awaiting testing results.

Please refer to the CDC guidance for the preparation and collection of specimens for details: [Preparation and Collection of Specimens | Monkeypox | Poxvirus | CDC](#).

Collect specimens while wearing appropriate PPE. Acceptable specimen types include lesion swabs (dry or in viral transport medium) and lesion crusts. Monkeypox testing currently requires 2 steps: first, a test for orthopoxvirus that occurs at the LRN-B laboratory, and second, a confirmatory monkeypox test conducted at CDC. Therefore, collect two swabs from each lesion, one for LRN-B and one for CDC testing. If multiple lesions are present, collect specimens from different locations on the body and/or from lesions with different appearances, or if only 1 location is affected, collect specimens from more than 1 lesion. At this time, up to a total of 3 lesions should be swabbed, for a total of 6 swabs collected. Collect specimens as follows:

- 1) Vigorously swab lesion with two separate sterile dry polyester or Dacron swabs.
- 2) Break off each swab into a sterile 1.5- or 2-mL screw-capped tube with O-ring, or place each entire swab into a separate sterile container. Include the scab if possible. Alternatively, each swab may be placed in separate tubes of viral transport media (VTM). No other type of transport medium is acceptable. Note that swabs in VTM and crusts/scabs must be received by the CDC within 7 days of collection.
- 3) Note: please mark/label each set of 2 swabs with an identical number so they are easy to distinguish from separate lesion collections, e.g., Swab #1 from left thigh and Swab #2 from left thigh.

Follow the LHD directions on proper submission to the appropriate LRN-B laboratory. Most public health laboratories are not able to accept specimens overnight or on weekends. If specimens are collected after hours, specimens should be stored at 4C if shipped within 24 to 72 hours; the specimens need to be kept at <-20C freezer if it will be held longer than 72 hours.

If the orthopoxvirus PCR test is positive at an LRN-B laboratory, the person is considered to be a monkeypox case until proven otherwise. Therefore all infection control measures above should be continued while the test for monkeypox virus at CDC is performed.

V. Infection Control Considerations for Suspected Monkeypox Cases

Monkeypox virus can spread when a person comes into contact with the virus from an infected animal, infected person, or materials contaminated with the

virus (<https://www.cdc.gov/poxvirus/monkeypox/transmission.html>). Monkeypox spreads between people primarily through direct contact with infectious sores, scabs, or body fluids. It also can be spread by respiratory secretions during prolonged, face-to-face contact. Monkeypox can spread during intimate contact between people, including during sex, as well as activities like kissing, cuddling, or touching parts of the body with monkeypox sores. At this time, it is not known if monkeypox can spread through semen or vaginal fluids.

Infection Control in the Healthcare Setting

Reports of human-to-human transmission describe close contact with an infectious person. Transmission in healthcare settings has been rarely described and occurred when insufficient PPE was used. CDC recommendations for infection control measures in health care settings are at <https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-healthcare.html> and are subject to change if information about transmission changes.

Patient Placement

A patient with suspected or confirmed monkeypox infection should be placed in a single-person room; special air handling is not required. The door should be kept closed (if safe to do so). The patient should have a dedicated bathroom. Activities that could resuspend dried material from lesions, e.g., use of portable fans, dry dusting, sweeping, or vacuuming should be avoided. Transport and movement of the patient outside of the room should be limited to medically essential purposes. If the patient is transported outside of their room, they should use well-fitting source control (e.g., medical mask) and have any exposed skin lesions covered with a sheet or gown.

Please consider telemedicine evaluation in a medically stable patient, in order to mitigate the risk of spread to healthcare personnel (HCP) and other patients.

Personal Protective Equipment (PPE)

HCP and LHJ staff who enter the patient's room should wear the following PPE:

- Gloves
- Gown
- Eye protection (goggles or faceshield that covers the front and sides of the face)
- NIOSH-approved particulate respirator equipped with N95 filters or higher

HCP should don PPE before entering the patient's room and use during all contact with the patient. HCP should remove and discard gloves, gown and eye protection, and perform hand hygiene prior to leaving the patient's room; the respirator should be removed, discarded and replaced with a mask for source control after leaving the patient's room and closing the door.

Environmental Infection Control

Any EPA-registered hospital-grade disinfectant can be used for cleaning and disinfecting environmental surfaces; CDC recommends using an EPA-registered hospital-grade disinfectant with an emerging viral pathogen claim (EPA's List Q), although most of these are hospital grade disinfectants.

Take care when handling soiled laundry (e.g., bedding, towels, personal clothing) to avoid contact with lesion material. Soiled laundry should be gently and promptly contained in an appropriate laundry bag and never be shaken or handled in manner that may disperse infectious particles. Activities such as dry dusting, sweeping, or vacuuming should be avoided. Wet cleaning methods are preferred.

Waste (i.e., handling, storage, treatment, and disposal of soiled PPE, patient dressings, etc.) should be managed as medical waste (<https://www.cdph.ca.gov/Programs/CEH/DRSEM/CDPH%20Document%20Library/EMB/MedicalWaste/MedicalWasteManagementAct.pdf>).

Monitoring Exposed Healthcare Professionals

CDC has posted guidance on [monkeypox exposure risk assessment and monitoring](#) of exposed individuals, including HCP. LHDs may contact HAIProgram@cdph.ca.gov for consultation regarding HCP exposure evaluations.

Isolation and Infection Control at Home

On June 16, 2022, CDC provided an updated guidance for *Isolation and Infection Control at Home*: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html>. The general principles are that people with monkeypox who do not require hospitalization should be isolated at home. Please refer to CDC's [Duration of Isolation Procedures](#).

VI. Monkeypox Vaccination, Treatment, and Management Considerations

Most patients have mild disease and recover without medical intervention. The current circulating strain of monkeypox has been to date limited to the West African clade, which tends to cause milder disease.

An investigational antiviral medication, tecovirimat (also known as TPOXX or ST-246) was licensed by FDA in 2018 to treat smallpox and can be considered to treat monkeypox disease. This antiviral therapy is available only at limited facilities that are able to carry out the requirements of the IND, and may be considered after consultation with your LHD. Further details regarding Tecovirimat are available here:

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

VII. Monkeypox Vaccination and Post-exposure Prophylaxis

Post-exposure prophylactic (PEP) immunization is recommended for certain contacts and has been positioned in LHJs with cases or contacts. Supplies of these vaccines are limited but increasing and available via CDPH.

Jynneos is a live, non-replicating vaccine that is FDA licensed for prevention of smallpox and monkeypox in people ≥ 18 years. Jynneos can be considered for PEP in people who have had a high- or intermediate-risk exposure to monkeypox (see [CDC guidance](#)), as a method to prevent or reduce severity of disease. PEP should be given, if possible, within 4 days of exposure to prevent disease but may still reduce severity of disease if given up to 14 days after exposure. See [PEP FAQ](#) for more information.

Public health authorities also have the discretion to offer PEP to people who do not meet the high or intermediate criteria based on unique characteristics of the situation.

Some laboratory personnel and health care providers who may have close contact with monkeypox patients can also be considered for pre-exposure prophylaxis (PrEP). See [PrEP MMWR](#) for more information.

VIII. Key Messages and Resources for Patient Education

Residents in your local health jurisdiction may have questions and be seeking evaluation for monkeypox if they are experiencing a rash or other symptoms. Local health departments and health care providers should communicate relevant, non-stigmatizing and non-judgmental health information and advice

when educating patients and the community about monkeypox. Messaging should be fact-based and actionable.

Communicating information about monkeypox-related risks, steps to prevent infection, and symptoms is essential for preventing further spread of monkeypox and controlling the current outbreak, particularly for at-risk and affected communities. At this time, gay, bisexual, and other MSM are most impacted by this outbreak, but messaging to the general public should emphasize at-risk exposures, rather than identities, and include statements that anyone can be affected, regardless of gender or sexual orientation. Parallel, tailored communications to LGBTQ+ communities should be used to reach those most impacted by the current outbreak. Local health departments should collaborate with community-based organizations, commercial venues (e.g., gyms, bathhouses/saunas, bar, clubs), and other partners which serve gay and bisexual men to develop appropriate language and disseminate important messages to the LGBTQ+ community, especially during Pride season.

There have been reports of monkeypox cases in persons who have attended large events and festivals, both domestically and abroad, where transmission may have occurred due to close, personal, and skin-to-skin contact. CDC has provided [guidance on social gatherings, safer sex, and monkeypox](#)—including harm-reduction strategies—for people who plan to attend such events. Upcoming Pride events during the summer are also opportunities to spread the word about sexually transmitted infections, meningococcal disease, and COVID-19 – along with monkeypox - and actions that individuals can take to protect themselves and their community. See CDC's [printable palm card "Summer 2022 Health Tips for Gay and Bi Men"](#) with QR Code linking to information on monkeypox, meningococcal disease, HIV, STIs, and COVID-19 that can be distributed during Pride activities.

Key messages include the following:

- **Prevention** – any person (of any gender or sexual orientation) who has direct contact with an infected person, including sexual contact, can get monkeypox. Steps for self-protection include asking intimate and other sexual partners about symptoms, avoiding skin-to-skin or prolonged face-to-face contact with anyone who has symptoms, practicing safer sex (such as reducing the number of sexual partners), keeping hands clean with water and soap or alcohol-based hand rub, and maintaining respiratory etiquette.
- **Detection and care** – currently, CDC considers persons with monkeypox to be infectious from the onset of symptoms (rash or prodrome) and until lesions have crusted, those crusts have separated, and a fresh layer of healthy skin has formed underneath. If a person or their recent sexual

partner(s) from the last 21 days have unusual sores or a rash, especially if accompanied by fever or a feeling of discomfort or illness, they should isolate and contact their health care provider. If someone is suspected or confirmed as having orthopoxvirus or monkeypox, they should isolate from others, abstain from sex, kissing, hugging and other skin-to-skin or intimate contact, and avoid sharing bedding, towels, eating utensils, and clothing until the scabs have fallen off and healthy skin has formed underneath (see infection control section above). During this period, patients can get supportive treatment to ease monkeypox symptoms. Treatment with tecovirimat may be considered for persons with more severe symptoms or rash affecting sensitive areas (e.g., genitals). Anyone caring for a person sick with monkeypox should use appropriate personal protective measures and clean objects/surfaces that have been touched (see infection control section above).

- **Reporting** - Any rash-like illness after close or skin-skin contact with other individuals should be immediately reported to a health care professional, including information about all recent travel, sexual history, and any prior smallpox immunization.

Building Healthy Online Communities (BHOC) has developed additional messaging (in both English and Spanish) on monkeypox for gay, bi, and trans people who may be exposed through intimate contact, which will be updated as the situation evolves, and can be used by local health departments. The Gay Sexuality & Social Policy Initiative with the LA LGBT Center has also developed [a resource](#) in 9 languages for gay, bi, and trans men that can be adapted for co-branding by reaching ElizabethWu@luskin.ucla.edu. CDPH has co-branded this [flyer with QR code](#) which can be used by local health departments.

CDPH has a webpage on Monkeypox (ca.gov) as well as a [Monkeypox Q&A](#) geared toward the general public.

IX. Additional Information and Resources

[CDC Clinician FAQs \(new\)](#)

UK epi update <https://www.gov.uk/government/publications/monkeypox-outbreak-technical-briefings/investigation-into-monkeypox-outbreak-in-england-technical-briefing-1>

[Monkeypox fact sheet for sexually active persons \(new\)](#)

[CDPH Monkeypox Communications Toolkit](#)

[HAN Archive - 00468 | Health Alert Network \(HAN\) \(cdc.gov\)](#)

[2022 United States Monkeypox Case | Monkeypox | Poxvirus | CDC](#)

<https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf>

<https://www.who.int/news-room/fact-sheets/detail/monkeypox>

[BHOC Monkeypox Information for Gay, Bi, and Trans People Who May Be Exposed Through Sex and Intimate Contact](#)