July 25, 2022

To: Healthcare Providers

Subject: Clinical Assist Tool for Monkeypox Evaluation

Related Materials: Latest CDC Monkeypox Health Alert (cdc.gov) | Latest California Monkeypox Health Alert | CDC Health Alert Network (HAN) | California Health Alerts | Monkeypox Landing Page | Monkeypox Q&A | Monkeypox Communications Toolkit

Background and Summary:

The California Department of Public Health (CDPH) continues to work with local health departments (LHDs) and California healthcare providers on the ongoing monkeypox outbreak impacting the United States and other countries not usually endemic for monkeypox. 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.

Evaluation for Suspected Monkeypox Cases:

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. A suspect case is defined as a patient with a new characteristic rash OR meeting one of the epidemiologic criteria and has a high clinical suspicion for monkeypox. For suspected cases the typical disease course is shown below:

Disease Stage	Time window	Transmissibility	Symptom Monitoring or Isolation?
Incubation Period	1 – 2 weeks	Not contagious	Monitor for symptoms
Prodrome	1 – 4 days	Possibly contagious	Isolate
Rash Stage	2 – 4 weeks	Contagious	Isolate
Recovery	4 weeks or longer	*	*

* A person is contagious until after all the scabs on the skin have fallen off and a fresh layer of skin has formed

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. 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 of which the patient may not have previously been aware.
- *Figure 1: Examples of monkeypox lesions, from CDC Health Alert Network 6/14/2022*

- *Figure 2: Photo credit – General Hospital University of Malaga*

Clinical Decision Guide:

Clinical Questions	More supportive of Monkeypox	Less supportive of Monkeypox
1. Did the patient have a prodrome (fevers, chills, headache, lymphadenopathy, flu-like symptoms)?	**Yes**: recent cases have presented without an obvious prodrome. However, a patient with a strong epidemiologic link PLUS prodromal symptoms might increase suspicion of monkeypox. Notably lymphadenopathy is a distinguishing feature of monkeypox.	**No**: recent cases have presented without an obvious prodrome. A patient with an epidemiologic link without prodromal symptoms might decrease suspicion of monkeypox – close monitoring should occur for development of a rash or other symptoms.
2. Did the patient develop a rash?	**Yes**: all cases to date in California have developed a rash at some point in their course.	**No:** some cases have developed anorectal pain, tenesmus or bleeding, but these were from non-visible perianal lesions.
3. Where is the rash?	**Uncertain**: Classically, monkeypox rashes have started in the face and extremities then spread to rest of body. In recent cases, 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.	**Uncertain**: Classically, monkeypox rashes have started in the face and extremities then spread to rest of body. In recent cases, 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.
4. What is the rash appearance?	Deep-seated and well-circumscribed lesions, often with central umbilication. Lesions progress through specific sequential stages, sometimes rapidly—macules, papules, vesicles, pustules, and scabs.	Other presentations of rashes and rashes that do not progress. Remember, rashes in certain stages can be mistaken for other common rash etiologies, including sexually transmitted diseases (STDs) such as syphilis, herpes, etc.
5. Is the stage of rash consistent within each body part?	**Uncertain**: Although lesions on each part of body classically are at the same stage, recent cases have had rashes at different stages of progression in the same part of the body.	**Uncertain**: Although lesions on each part of body classically are at the same stage, recent cases have had rashes at different stages of progression in the same part of the body.
6. Is the rash painful?	**Yes:** Monkeypox rash is sometimes very painful and is often a reason people seek treatment.	**No:** Rashes such as those associated with HSV can be painful however other STDs such as syphilis are not typically painful.
7. Positive for other rash etiology?	**No:** negative test for other etiologies that cause rashes that appear similar to monkeypox (e.g., VZV, HSV, syphilis). Coinfections have been seen with STDs, particularly syphilis, so positive test for an STI may not completely rule out monkeypox.	**Yes:** positive test for other rash etiology, especially one that cause rashes that appear similar to monkeypox. Coinfections with STDs, particularly syphilis, have occurred in recent cases, so a positive test does not rule out monkeypox.
8. Was there contact with a known or suspect monkeypox case?	Contact with lesions or bodily fluids Sexual Contacts Household Contacts Prolonged (3 hours+) unmasked contact within six feet	Masked contact within 6 feet Contact with lesions/bodily fluids while wearing PPE. Shared airspace contact ≥6 feet
9. Recent participation in sex activities/ parties/ gatherings, especially with multiple sex	**Yes:** there have been a number of cases and contacts associated with sex or extended physical contact in sex settings/events, or	**No:** no participation or contact with someone who has participated in these activities or attended these venues/events is less suggestive of monkeypox

partners? Bathhouses/saunas?	bathhouses/saunas, with multiple sex partners.	
10. Is the patient part of a social group known to have high monkeypox prevalence or risk?	**Yes:** the majority of cases seen so far in non-endemic countries have been in men (inclusive of transgender men) who have sex with men.	**No:** no known linkage to a high-risk group or reported high-risk social or sexual behaviors would be less suggestive of monkeypox.
11. Recent travel?	**Yes**: had recent international travel to a country where WHO has reported many monkeypox cases, or domestic travel from areas where many cases have been reported.	**No**: lack of recent travel, particularly to countries with high case rates may suggest a lower risk for monkeypox

*While some of the listed factors more strongly suggest an underlying monkeypox etiology, no one answer is absolute in determining whether to test; instead, the collective responses and overall clinical picture should be considered.

Next Steps:

- Importantly, any patient who meets the definition of a suspect case should be counseled to implement appropriate transmission precautions, including isolation, immediately while awaiting testing results. The CDC's updated guidance for Isolation and Infection Control at Home and Duration of Isolation Procedures provide guidance on how cases can protect themselves and their communities at home by staying in isolation.
- 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.
- Please refer to the CDC guidance for the preparation and collection of specimens for details: Preparation and Collection of Specimens | Monkeypox | Poxvirus | CDC.

Vaccination for Monkeypox

- The two available vaccines are Jynneos (also known as Imvamune or Imvanex) and ACAM2000. These vaccines may be administered before exposure as prophylaxis for high-risk groups or as soon as possible after exposure to monkeypox to prevent disease or reduce severity. Vaccine administered within 4 days may prevent disease. Vaccine administered from 4-14 days after exposure may reduce illness severity. Vaccine is likely to have no benefit to persons who have already developed monkeypox symptoms. Visit the CDC's Monkeypox and Smallpox Vaccine Guidance for more information. Note that there is currently limited availability of vaccines in the United States.

Treatment

- Health care providers seeing persons withs suspected or confirmed monkeypox can provide supportive care and treatment of symptoms. This may include medicines or other clinical interventions to control itching, nausea, vomiting, and pain.
- Providers should consider treating high-risk suspect or confirmed cases who have pending lab testing results with TPOXX (tecovirimat), an antiviral medication available through an expanded access Investigational New Drug (EA-IND) protocol for the treatment of monkeypox infection. Antiviral treatment of monkeypox infection should be considered for people with severe infection, illness complications, and risk factors for progression to severe infection (children <8 years of age, pregnant or immunocompromised individuals, or those with a history of atopic dermatitis or eczema).
- TPOXX is approved by the FDA for the treatment of smallpox in adults and children but is not currently approved for monkeypox. Under an authority called Expanded Access Investigational New Drug (EA-IND) or compassionate use, TPOXX is authorized for physicians to use in treating patients with monkeypox. Supplies of TPOXX are maintained by the Strategic National Stockpile (SNS) in the Office of the Assistant Secretary for Preparedness and Response. The process to obtain medications from the SNS differs from the usual commercial means used by clinicians and healthcare care pharmacists to order other drugs.
- CDC recently posted information clarifying the current TPOXX ordering process: Obtaining and Using TPOXX (Tecovirimat) | Monkeypox | Poxvirus | CDC. The web posting clarifies that forms and other documentation required for obtaining TPOXX can be submitted ***after*** clinicians receive the drug and begin patient treatment. CDC and FDA are working to further simplify the protocol with additional reductions in data collection and reporting requirements that will be made available soon.
- For more information on prescribing or accessing TPOXX for your patients, please contact your local health department Local Health Services/Offices or monkeypox@cdph.ca.gov.
- For additional information on treating monkeypox, see:
  Monkeypox-treatment-guidance-interim.pdf (nyc.gov)
  Treatment Information for Healthcare Professionals | Monkeypox | Poxvirus | CDC

Additional Information and Resources:

- CDC Testing Directory
- CDC Clinician FAQs
- Monkeypox fact sheet for sexually active persons
- CDPH Monkeypox Communications Toolkit

- HAN Archive - 00468 | Health Alert Network (HAN) (cdc.gov)
- 2022 United States Monkeypox Case | Monkeypox | Poxvirus | CDC
- CDC Personal Protective Equipment Sequence
- WHO Monkeypox Fact Sheet
- BHOC Monkeypox Information for Gay, Bi, and Trans People Who May Be Exposed Through Sex and Intimate Contact