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Health Advisory

August 22, 2022

Monkeypox Lab Testing Guidance & Clinician Information

Key Messages

As of August 4, 2022, the Biden Administration declared Monkeypox a federal public health emergency, and there are 2660 probable and confirmed Monkeypox cases in California, in 36 counties (18th August Update). There are presently no confirmed cases in Glenn County.

The risk of monkeypox in the general population continues to be very low based on the information available. A limited number of vaccines are available in Region 3, and more will be ordered at the next opportunity.

Background Information

Since mid-May 2022, almost 38000 cases of monkeypox disease have been reported worldwide from countries that are non-endemic for monkeypox. All US states report approximately 13,517 probable or confirmed cases, as of August 17, 2022.

Actions Requested of Health Care Systems and Clinicians

1. **Isolate** patient suspected of monkeypox in single-person exam room or airborne precaution isolation room, if available, as soon as possible. Ensure patient remains masked, if tolerable, and cover any exposed skin lesions with gown or sheet. Health care personnel evaluating patient should wear gloves, gown, eye protection, and N95 or equivalent or higher-level respirator.
2. **Report** any suspect cases **immediately** by phone to Glenn County PH at (530) 934-6588.
3. **Collect** samples for testing as described below.
4. **Manage and treat** with supportive care and symptom control. Antiviral treatment and prophylaxis are available from CDC after case-by-case evaluation. Many cases are mild enough that they can convalesce at home.

Questions:
Reach out to Dr. Garrison directly at (530) 591-0632.

Laboratory Testing Guidance

Locally, Quest and Labcorp are providing Monkeypox testing.

For more information regarding Quest services visit: Monkeypox | Quest Diagnostics. Quest's process employs PCR techniques to aid in the qualitative detection of non-variola orthopoxvirus and monkeypox virus DNA.

For more information regarding Labcorp services visit: Monkeypox (Orthopoxvirus), DNA, PCR Test | Labcorp. The test is qualitative and will indicate a result for the presence of DNA from non-variola orthopoxvirus species, of which monkeypox is one.

Personnel who collect specimens should use personal protective equipment (PPE) in accordance with recommendations for healthcare settings. Specimens should be collected in the manner outlined below.

Here are the directions from the **QUEST** website for specimen collection:

- *Swab a pustule/lesion vigorously and place the swab into a viral culture media (VCM; or equivalent) tube.*
- *No additional confirmatory testing is required at the CDC; therefore, a duplicate swab from the same lesion is not needed. If clinically indicated, consider submitting additional swabs if multiple lesions with different stages are present. Multiple specimens collected from a single patient should be submitted separately; each should be accompanied by its own separate requisition and transported in its own sealed bag. Ship frozen (preferred) or refrigerated.*
- *Healthcare personnel should collect specimens using personal protective equipment (PPE) in accordance with recommendations for healthcare settings. Specimens will not be collected in our patient service centers.*

Here are the directions from the **LABCORP** website for specimen collection:

- *Sample collection: Vigorously swab or brush the base of the lesion with a sterile dry polyester, rayon or Dacron swab. Insert the swab into the tube containing UTM or VTM. Carefully break the swab at the scoreline and tightly close the sample. Some UTM kits may contain two swabs; however, only one swab needs to be collected and submitted for testing. If multiple lesions with differing appearances are present, consider submitting an additional UTM/VTM collection, as described above, for each lesion.*
- *Here is a link to more detailed instructions for collecting specimens to be submitted to Labcorp:* 196405_DX_IFU_MonkeyPox-Collection_Final.pdf (labcorp.com)

Please note that, for both Labcorp and Quest, **healthcare providers can order monkeypox virus testing as they normally would order other tests. People seeking testing for monkeypox must consult with their healthcare provider first; they cannot separately go to a lab**. Please refer to the individual website for specimen collection and submission instructions.

Additional Resources *for Healthcare Providers*

The CDPH Monkeypox Clinical Assist Tool (below) includes information about associated symptoms and physical exam, including photographs. Additionally, the last page has several links for more information.

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 person should be considered a suspect case if they have a new characteristic rash OR if they have risk factors for monkeypox exposure and clinical suspicion for monkeypox. Features of the typical disease course are shown below:

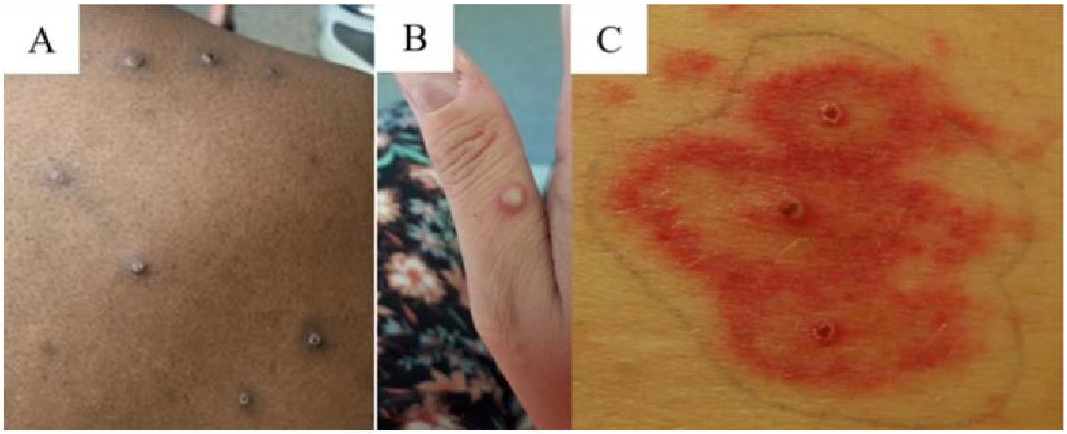
Disease Stage	Time window	Transmissibility	Symptom Monitoring or Isolation?
Incubation Period	1 – 2 weeks	Not contagious	Monitor for symptoms
Prodrome	1 – 4 days	Possibly contagious	Isolate
Rash Stage	2 – 4 weeks	Contagious	Isolate
Recovery	4 weeks or longer	*	*

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

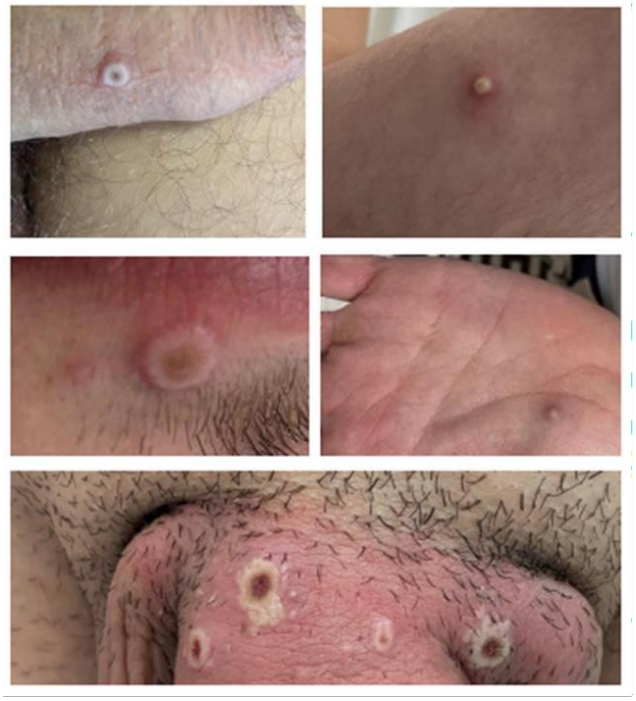
Physical Exam:

- 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. Did the patient test 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. Did the patient recently participate parties or gatherings involving sex, especially with multiple sex partners? Or did the patient attend venues where there is sex on premises such as bathhouses or saunas?	**Yes:** there have been a number of cases and contacts associated with sex or extended physical contact in sex related events, or bathhouses/saunas, with multiple sex partners.	**No:** no participation or contact with someone who has participated in these activities or attended these venues/events is less suggestive of monkeypox
10. Is the patient part of a social group known to have high monkeypox incidence or risk?	**Yes:** the majority of cases seen so far in non- endemic countries have been in men or transgender persons 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. Did the patient recently 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 suspect monkeypox; instead, the collective responses and overall clinical picture should be considered.

Next Steps:

- Any patient who is a suspect case should be counseled to implement appropriate transmission precautions, including isolation, 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.
- 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 Local Health Department.
- Please refer to the CDC guidance for the preparation and collection of specimens for details: Preparation and Collection of Specimens | 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

Categories of Health Alert Network messages:

Health Alert	Requires immediate action or attention; highest level of importance
Health Advisory	May not require immediate action; provides important information for a specific incident or situation
Health Update	Unlikely to require immediate action; provides updated information regarding an incident or situation
HAN Info Service	Does not require immediate action; provides general public health information