

# Monkeypox Information for the ED and Inpatient Setting

Updated August 11, 2022

Human-to-human transmission of monkeypox virus occurs by direct contact with lesion material or from exposure to respiratory secretions. Reports of human-to-human transmission describe prolonged, close contact with an infectious person. Transmission in healthcare settings has not yet been observed.

## Presentation

Symptoms of monkeypox can include:

- Fever
- Headache
- Muscle aches and backache
- Swollen lymph nodes
- Chills
- Exhaustion
- Respiratory symptoms (e.g. sore throat, nasal congestion, or cough)
- A rash that may be located on or near the genitals or anus, including inside the rectum (“proctitis”), but could also be on other areas like the hands, feet, chest, face, or mouth.
  - The rash will go through several stages, including scabs, before healing.
  - The rash can look like pimples or blisters and may be painful or itchy.

## History

Intimate contact is currently the most common route of transmission. Currently men who have sex with men have been impacted most frequently, thus obtaining a sexual history is important – including any new partners.

Monkeypox symptoms generally start within 3 weeks of exposure to the virus. If someone has flu-like symptoms, they will usually develop a rash 1-4 days later.

Obtain a current address and phone number.

Find out if patients are able to isolate, as this is ideal. Otherwise, patients should wear a mask and cover any lesions.

## Case Definitions

### Confirmed Case

Demonstration of the presence of *Monkeypox virus* DNA by polymerase chain reaction testing or Next-Generation sequencing of a clinical specimen **OR** isolation of *Monkeypox virus* in culture from a clinical specimen

### Suspect Case

New characteristic rash (the characteristic rash associated with monkeypox lesions involve 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).

*OR*

Meets one of the epidemiologic criteria<sup>1</sup> and has a high clinical suspicion for monkeypox (Clinical suspicion may exist if presentation is consistent with illnesses confused with monkeypox e.g., secondary syphilis, herpes, and varicella zoster)

### Probable Case

No suspicion of other recent Orthopoxvirus exposure (e.g., Vaccinia virus in ACAM2000 vaccination) *AND* demonstration of the presence of:

- Orthopoxvirus DNA by polymerase chain reaction of a clinical specimen, *OR*
- Orthopoxvirus using immunohistochemical or electron microscopy testing methods, *OR*
- Demonstration of detectable levels of anti-orthopoxvirus IgM antibody during the period of 4 to 56 days after rash onset

## Diagnosis/Orders

- Diagnosis is confirmed by testing the suspicious lesion
- Quest Monkeypox DNA Qualitative PCR is searchable in Cerner: use **one swab per order**, rub vigorously in suspected lesion, put into viral transport media and refrigerate (stable for up to 7 days). Expected turn around is 2-3 days.
- Strongly consider testing for other STIs:
  - Herpes (HSV 1&2),
  - Syphilis (Treponemal Ab IgG and IgM),
  - Rectal, oral and urine chlamydia and gonorrhea
  - HIV
- Precautions: Airborne and Contact

## Patient Placement

A patient with suspected or confirmed monkeypox infection should be placed in a single-person room with a dedicated bathroom; special air handling (negative pressure room) is not required. The door should be kept closed (if safe to do so).

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.

Intubation and extubation, and any procedures likely to spread oral secretions (aerosol-generating procedures or AGPs) should be performed in an airborne infection isolation (negative-pressure) room.

Activities that could re-suspend dried material from lesions, e.g., use of portable fans, dry dusting, sweeping, or vacuuming should be avoided.

A laminated purple “Airborne and Contact” precautions sign should be affixed to the patient door.

## Personal Protective Equipment (PPE)

Required PPE used by healthcare personnel who enter the patient’s room include:

- Gown
- Gloves
- Eye protection (i.e., goggles or a face shield that covers the front and sides of the face)
- NIOSH-approved particulate respirator equipped with N95 filters or higher

## Environmental Infection Control

Waste should be managed as Regulated Medical Waste (RMW) in the same manner as other potentially infectious medical waste (e.g., soiled dressings, contaminated sharps).

Standard cleaning and disinfection procedures should be performed using an EPA-registered hospital grade disinfectant with an emerging viral pathogen claim. Products with Emerging Viral Pathogens claims may be found on EPA’s List Q. Follow the manufacturer’s directions for concentration, contact time, and care and handling.

Soiled laundry (e.g., bedding, towels, personal clothing) should be handled in accordance with recommended standard practices, avoiding contact with lesion material that may be present on the laundry. 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 material. When handling dirty laundry from people with known or suspected monkeypox infection, staff should wear a gown, gloves, eye protection, and a well-fitting mask or respirator. Special PPE is not necessary after the wash cycle is completed.

Activities such as dry dusting, sweeping, or vacuuming should be avoided. Wet cleaning methods are preferred.

Management of food service items should also be performed in accordance with routine procedures.

## Contact Tracing and Follow Up

Infection Preventionist will submit the CMR to Public Health, however it is the ordering physician's responsibility to convey results – either positive or negative – to the patient. Patient should be given the Monkeypox Patient Education discharge information which should answer most questions the patients may have, but will also have the number of the Communicable Disease Department in Public Health at (805) 981-5201 who can answer other questions, provide contact tracing for patients and staff, and discuss appropriateness of treatment or post-exposure prophylaxis.

## Duration of Precautions

If a patient requires inpatient medical care and is isolated for monkeypox, decisions regarding discontinuation of isolation precautions in a healthcare facility should be made in consultation with the local or state health department. Patients are contagious from the onset of symptoms until lesions scab over, the scabs fall off and new skin has grown – about 2-4 weeks. Isolation Precautions should be maintained until that fresh layer of healthy skin has formed. This generally takes 2-4 weeks.

## Management of Healthcare Personnel with a Monkeypox Exposure

Any healthcare worker who has cared for a monkeypox patient without full PPE as described above should be alert to the development of symptoms that could suggest monkeypox infection, especially within the 21-day period after the last date of care and should notify Infection Control at 805-652-3383 and Public Health (805) 981-5201 to be guided about a medical evaluation.

Healthcare workers who have unprotected exposures (i.e., not wearing PPE) to patients with monkeypox do not need to be excluded from work duty but should undergo active surveillance by Public Health for symptoms, which include measurement of temperature at least twice daily for 21 days following the exposure. Prior to reporting for work each day, the healthcare worker should be interviewed regarding evidence of fever or rash.

Healthcare workers who have cared for or otherwise been in direct or indirect contact with monkeypox patients while adhering to recommended infection control precautions may undergo self-monitoring.

Public Health will address levels of risk and appropriateness of treatments or vaccinations, but this information is also available at this CDC site for reference:

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html#:~:text=Healthcare%20workers%20who%20have%20unprotected,21%20days%20following%20the%20exposure.>

## Management of Inpatient Exposure to Monkeypox

Hospitalized patients who encounter an exposure should be reported to Infection Control, where their risk and appropriateness of anti-viral medications or vaccines will be addressed. Additionally, if an inpatient is unable to communicate symptom onset (e.g. a newborn, patient with delirium), they should be isolated for 21 days after their last exposure or until they are able to communicate symptom onset (e.g. following delirium resolution) and monitored for the remaining duration of their incubation period.

## Treatment/Vaccinations

Monkeypox is generally a mild, self-limiting disease, however there may be some populations that may benefit from treatment, such as severely immunocompromised individuals. There is currently no treatment available to treat monkeypox specifically, but there are anti-viral medications effective in treating smallpox and may be helpful for treating Monkeypox. At the time of the creation of this document, no treatment is available in Ventura County.

There are also vaccines available for post-exposure prophylaxis, but this discussion is beyond the scope of this document and can be discussed with Public Health or the treating physician. However, the post-exposure vaccine should be given within 4 days after the date of exposure, so it is imperative to contact Public Health as soon as possible if patient or close contacts are within those 4 days from exposure.

## Visitation

Visitors to patients with monkeypox should be limited to those essential for the patient's care and wellbeing (e.g., parents of a child, spouse). Decisions about who might visit, including whether the visitor stays or sleeps in the room with the patient, typically take into consideration the patient's age, the patient's ability to advocate for themselves, ability of the visitor to adhere to IPC recommendations, whether the visitor already had higher risk exposure to the patient, and other aspects. In general, visitors with contagious diseases should not be visiting patients in healthcare settings to minimize the risk of transmission to others.

## Information For Laboratory Personnel

CDC guidelines are available at <https://www.cdc.gov/poxvirus/monkeypox/lab-personnel/index.html>

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

## Commercial laboratories providing monkeypox testing:

- [LabCorp Monkeypox \(Orthopoxvirus\), DNA, PCR Test](#) – Labcorp resource on Monkeypox tests.
- [Quest Diagnostics Monkeypox Virus DNA, Qualitative Real-Time PCR](#) - Quest Diagnostics resource on test details and FAQs.
- [Monkeypox Mayo Clinic Lab Ordering](#) – main page for ordering tests from Mayo Clinic.
- [Monkeypox Aegis Sciences Corporation PCR Testing](#)- main page for ordering tests from Aegis Sciences.

- [Monkeypox Testing Sonic Healthcare USA](#) -main page for ordering tests from Sonic Healthcare.

References:

CDC <https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control.html>

CDC <https://www.cdc.gov/poxvirus/monkeypox/clinicians/case-definition.html>

CDPH: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Monkeypox-HCP-Info.aspx>

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<sup>i</sup> Epidemiologic Criteria

Within 21 days of illness onset:

- Reports having contact with a person or people with a similar appearing rash or who received a diagnosis of confirmed or probable monkeypox **OR**
- Had close or intimate in-person contact with individuals in a social network experiencing monkeypox activity, this includes men who have sex with men (MSM) who meet partners through an online website, digital application (“app”), or social event (e.g., a bar or party) **OR**
- Traveled outside the US to a country with confirmed cases of 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.)