VENTURA COUNTY PUBLIC HEALTH

A Department of Ventura County Health Care Agency

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Please copy and distribute to ALL physicians at your location.

Monkeypox Virus Infection in the United States

The Centers for Disease Control and Prevention (CDC) issued a Health Advisory on May 20, 2022 regarding a confirmed case of monkeypox virus infection in Massachusetts as well as multiple clusters of monkeypox virus infections in other countries. From early May to May 24, there have been 332 confirmed or suspected monkeypox cases worldwide. There are now at least 9 cases in the United States. On May 18, the Massachusetts Department of Public Health in coordination with the CDC, confirmed a case of monkeypox virus infection in an adult male with recent travel to Canada. Cases of monkeypox outside of Western and Central Africa are extremely rare. Cases of monkeypox have been identified in a number of non-endemic countries and *many of them have involved men who have sex with men (MSM) without a history of travel to an endemic country*. While monkeypox has traditionally been seen to cover all surfaces of the body, *the rash in this outbreak is often found in the genital and anal areas and the mouth*.

Recommendations For The Evaluation Of A Suspected Monkeypox Case
The following case definitions, as of 5/20/22, have been proposed.

- **Confirmed case:** Patient with monkeypox virus detected from a clinical sample.
- **Probable case:** Patient with orthopoxvirus detected from a clinical sample.
- **Suspect case:** Patient with an unexplained rash (unlikely to be secondary syphilis, herpes, varicella, molluscum contagiosum, or other diagnosis) that is consistent with monkeypox (firm, well circumscribed, deep-seated, and umbilicated lesions; progresses from macules to papules to vesicles to pustules to scabs) especially in patients who 1) report close contact with a person or people with confirmed or suspected monkeypox and/or with a similar rash; and/or 2) report travel in the past month to an area where confirmed cases have been reported; and/or 3) is a MSM.

For Health Care Providers
CDPH requests that health care providers report cases of persons meeting the suspect case definition immediately to Ventura County Public Health at 805-981-5201. Please consider and rule out, if possible, other more common etiologies of rash illness such as herpes, syphilis, molluscum contagiosum, and varicella zoster.

Testing Recommendations

The CDPH Viral and Rickettsial Disease Laboratory (VRDL) and the San Luis Obispo County Public Health Laboratories are Laboratory Response Network laboratories with capacity to provide orthopoxvirus testing on lesion specimens that clinicians obtain from suspected patients; confirmatory monkeypox virus-specific testing at CDC requires a dry lesion swab specimen.

If a patient is evaluated and monkeypox is considered to be high on the differential diagnosis in consultation with the LHJ, collect multiple specimens for preliminary and confirmatory testing as follows:

1) Vigorously swab or brush lesion with two separate sterile dry polyester or Dacron swabs; vesicular or pustular fluid is ideal;
2) Break off end of applicator of each swab into a sterile 1.5- or 2-mL screw-capped tube with O-ring or place each entire swab in a separate sterile container. Do not add or store in viral or universal transport media.

Infection Control Considerations

Monkeypox is not typically transmissible human-to-human because it requires a very large dose of virus, so it is likely that this outbreak is driven by close and prolonged human contact. Nevertheless, patients presenting with suspected monkeypox should be placed as soon as possible in a single-person exam room with door closed, or an airborne infection isolation room, if available. The patient should remain masked, as tolerated and any exposed skin lesions should be covered with a sheet or gown. Healthcare personnel (HCP) evaluating patients with suspected monkeypox should wear the following personal protective equipment (PPE): gloves, gown, eye protection (goggles or faceshield) and a N95 or equivalent or higher-level respirator. HCP should don PPE before entering the patient's room and use for all patient contact. HCP should remove and discard gloves, gown and eye protection, and perform hand hygiene prior to leaving the patient's room; the N95 respirator should be removed, discarded and replaced with a mask for source control after leaving the patient's room and closing the door. Any EPA-registered hospital-grade disinfectant should be used for cleaning and disinfecting environmental surfaces.

Treatment and Management Considerations

Management and treatment of monkeypox disease includes nonspecific supportive care and treatment of symptoms. Antiviral treatments and prophylaxis are available from CDC after case-by-case evaluation; additional guidance from CDC on their use in the outbreak is anticipated shortly. Please contact CDPH for clinical consultation on potential therapy or prophylaxis.

Smallpox vaccination within 3 years is 85% effective at preventing monkeypox disease. Post-exposure vaccination is helpful with confirmed cases and contacts (like healthcare workers). If someone has a confirmed exposure, the smallpox vaccine can be given within four days after exposure to prevent disease. If the vaccine is given between 4 and 14 days it can reduce, but not entirely prevent, symptoms. Effective therapeutics have been developed but are not widely available. The antiviral ST-246 (tercovirimat), for example, was developed specifically for smallpox but works for all orthopoxviruses including monkeypox.

Bacterial superinfections should be appropriately treated but may be difficult to distinguish from viral inflammation.

Background

Monkeypox is a viral zoonosis with symptoms very similar, though clinically less severe, to those seen in the past with smallpox infections. Monkeypox virus belongs to the *Orthopoxvirus* genus which also includes the variola (smallpox) virus. Monkeypox occurs primarily in Central and West Africa and has been rarely exported to other regions.

This monkeypox outbreak is derived from the West African clade and is associated with a mortality rate of 1%. It is not considered a risk for pandemic spread. Nigeria has had a large outbreak of monkeypox with hundreds of cases to date. The wild animal reservoir is unknown. After an average incubation period of 6 to 13 days (range, 5 to 21 days), flu-like symptoms may appear, and may include fever, headache, lymphadenopathy, myalgia, and fatigue. This is followed approximately 1 to 3 days later with rash that may affect the face and extremities (including palms and soles). *Mucous membranes and genitalia have characterized many of the cases involved in this outbreak.* The appearance and progression of the rash is very characteristic, evolving sequentially from macules to papules, vesicles, pustules and crusts which dry up and fall off.

In the most recent reported cases, *characteristic monkeypox-like lesions have been seen in the genital and perianal regions in the absence of subjective fever and other flu-like symptoms.* A person is considered infectious from the onset of symptoms and is presumed to remain infectious until lesions have crusted, those crusts have separated, and a fresh layer of healthy skin has formed underneath.

Human-to-human transmission occurs through large respiratory droplets and by direct contact with body fluids or lesion material, as well as through fomites (such as clothing or bedding) contaminated by the virus. Confirmatory laboratory diagnostic testing for monkeypox is performed using real-time polymerase chain reaction assay on lesion-derived specimens. Monkeypox is usually self-limited with disease symptoms lasting 2 to 4 weeks. Complications, including secondary infections, are possible.

CDPH Monkeypox Information:
https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Monkeypox.aspx

CDC Monkeypox Alert Advisory:
https://emergency.cdc.gov/han/2022/han00466.asp

This bulletin is intended to improve the public health in our county by keeping physicians and nurses informed of noteworthy diagnoses, disease trends, and other events of medical interest. Another goal of a public health department is to educate. We hope that you will use this information to increase your awareness. Please allow us to continue in our role of speaking to the press so that we may maximize the educational message to the benefit of all citizens of Ventura County.