HEALTH ADVISORY:
Monkeypox Virus Outbreak Update: Testing, Vaccination and Treatment

July 26, 2022

This advisory is intended for emergency medicine, urgent care providers, infectious disease, primary care, internal medicine, family practice, pediatric, and OB/GYN providers. Please distribute as appropriate.

Overview:

- This is an update to the Health Advisory: Monkeypox Virus Outbreak Evaluation and Testing issued on 06/17/2022. Please refer to the original advisory for background information, details about clinical presentation and evaluation, situations where testing for monkeypox may be warranted, and infection prevention and control measures.
- Laboratory testing capacity for monkeypox is increasing. The following commercial laboratories are currently offering orthopox/monkeypox testing: Labcorp, Mayo Clinic Laboratories, Quest Diagnostics, Stanford Health Care, Aegis Sciences Corporation, and Sonic Healthcare USA. This situation is evolving rapidly and providers should get the most up-to-date information directly from the laboratories they work with regularly. Pre-approval from public health is NOT required when ordering orthopox/monkeypox testing through commercial laboratories.
- Orthopox/monkeypox testing is still available through the Public Health Laboratory system on a case-by-case basis and when commercial laboratory testing is not readily available.
- Unfortunately, we do not have enough staff to help health care providers evaluate rashes of unclear etiology. If you need a clinical consultation to decide whether a patient’s rash is compatible with monkeypox, please use your normal channels and reach out to your Infectious Diseases and/or Dermatology consultants.
- Most patients presenting with a rash will not have monkeypox, and should be evaluated for alternative diagnoses, including but not limited to molluscum contagiosum, syphilis, varicella zoster, herpes and lymphogranuloma venereum (LGV). Overall, risk to the general public remains low.

Testing Procedure:

Laboratory testing capacity for monkeypox is increasing as more commercial laboratories are now offering orthopox/monkeypox testing. Please order testing through commercial laboratories when possible. If testing through a commercial laboratory, please contact the laboratory directly or visit its website to verify the requirements to submit a specimen. Pre-approval through public health is not required when ordering testing through commercial laboratories.
Testing through the **public health laboratory** system is still available and is being prioritized for patients who are severely ill, are part of a cluster/outbreak investigation, or where other testing options are not feasible (e.g., uninsured/underinsured patients or other barriers to testing through commercial laboratories). To request testing through the public health laboratory system:

1) **Prior to sending specimens to the San Mateo County Public Health Laboratory, please contact the Communicable Disease Control Program at 650-573-2346 OR by securely emailing the Monkey Pox Specimen Requisition form and details about the patient’s symptoms and exposures to SMCCDControl@smcgov.org. Please note that this phone number/email address is only for use by medical providers and should **not** be distributed further.**

2) When collecting specimens, full personal protective equipment (PPE) should be worn: gloves, gown, eye protection (goggles or face shield) and a N95 or equivalent or higher-level respirator.

3) Monkeypox lesions may appear in different stages on different parts of the body. To accommodate the need for both preliminary and confirmatory testing, collect paired specimens from 2-3 lesions total, preferably from different body sites.

4) Collect at least 2 swabs from the each of the lesions sampled using sterile nylon, polyester, or Dacron swabs with plastic or aluminum shaft. Clearly mark paired specimens, e.g., “L elbow swab #1” and “L elbow swab #2.”
   - Vigorously swab each lesion (unroofing, if possible) with two separate sterile dry swabs
   - Place each swab into separate 1.5- or 2-mL screw-capped tube with O-ring or other sterile container
   - Lesion crusts or scabs may be submitted dry in separate sterile containers

5) Store all specimens at 4°C if shipping within 24-72 hours; store at -20°C to -80°C if shipping will be delayed.

6) One **Monkey Pox Specimen Requisition Form** must be completed electronically for each lesion (e.g. complete one form for both L elbow swab #1 and L elbow swab #2). Handwritten forms or stickers will not be accepted. Please email completed forms to SMCCDControl@smcgov.org and include a copy with the specimens.

7) All specimens should be routed to the San Mateo County Public Health Laboratory. If you have questions regarding specimen processing or delivery, please call the Public Health Laboratory at 650-573-2500. The Public Health Laboratory is open Monday-Friday 8am-12pm and 1pm-5pm and is closed on holidays.

**JYNNEOS Vaccination for Post-Exposure Prophylaxis (PEP) and Pre-Exposure Prophylaxis (PrEP)**

The JYNNEOS vaccine is approved by the U.S. Food and Drug Administration (FDA) to prevent both smallpox and monkeypox. Vaccination helps protect against monkeypox when given
before or shortly after an exposure. This vaccine is currently available in the United States from the federal [Strategic National Stockpile](https://www.cdc.gov/vaccines/schedules/statements/sns-pediatric-schedule.pdf).

At this time, the federal government has allocated a limited number of JYNNEOS vaccine doses to Californians. CPDH is working with local health departments to make these doses available to protect against monkeypox.

Like most other vaccines, the JYNNEOS vaccine is administered by subcutaneous injection, usually in the upper arm. The [CDC](https://www.cdc.gov) recommends individuals receive a two-dose series with at least four weeks between the two doses. When vaccine supplies are limited, administering the first doses will be prioritized and second doses will not be given.

The JYNNEOS vaccine should ideally be administered within 4 days from the date of exposure to help prevent the onset of the disease. If given between 4–14 days after the date of exposure, vaccination may help reduce symptoms but may not prevent infection.

At this time, use of JYNNEOS in populations younger than 18 years old requires submission of a single patient Expanded Access Investigational New Drug (IND) application.

There is not enough vaccine for people who need or want it. There is no good fix for this problem while supplies remain constrained. Neighboring jurisdictions and healthcare systems are using a variety of frameworks to get vaccine out quickly and efficiently. None of these frameworks solve the problem of a demand greater than supply.

San Mateo County has received a small supply of vaccine that has been distributed to neighboring jurisdictions and healthcare facilities in San Mateo County based on local analysis to identify sites where populations being prioritized for PEP and PrEP routinely access care. At present these may include publicly available vaccination sites in San Francisco, Alameda County, and Berkeley as well as the Kaiser locations in San Mateo County and Stanford Health Care to serve at-risk patient populations seen routinely through these healthcare systems.

**Treatment**

Tecovirimat (TPOXX or ST-246) is an antiviral medication that is FDA-approved to treat smallpox. In animal studies, tecovirimat has been shown to decrease the chance of dying from infections with orthopoxviruses when given early in the disease course. In people, efficacy studies have been limited to drug levels in blood and a few case studies. In a case series of people with monkeypox infection, one patient received tecovirimat with results suggesting tecovirimat might shorten duration of illness and viral shedding, though efficacy is unknown (Adler, 2022).

Tecovirimat is not yet approved for treatment of monkeypox in the United States, though it has been approved for monkeypox treatment in Europe. As such, tecovirimat can only be released
by the Centers for Disease Control and Prevention (CDC), which holds a non-research, expanded access Investigational New Drug (EA-IND) protocol for use of tecovirimat as treatment of confirmed or presumed monkeypox infection. Informed consent is required for all patients treated with tecovirimat.

Situations where tecovirimat should be prioritized for use include patients with severe disease, evidence of complications or hospitalization, and those at risk for severe disease. A good resource for additional information is the Interim Guidance for Treatment of Monkeypox from the New York City Health Department.

Institutions in the Bay Area currently able to administer TPOXX include Kaiser San Francisco, San Francisco City Clinic, UCSF Health, Zuckerberg San Francisco General Hospital, Kaiser San Jose, Santa Clara Valley Medical Center, and Stanford Health Care.

Additional Resources:

- Health Advisory: Monkeypox Virus Outbreak Evaluation and Testing issued on 06/17/2022
- Monkey Pox Specimen Requisition form
- CDPH Monkeypox
- CDC 2022 U.S. Monkeypox Outbreak 2022
- CDC COCA Call Monkeypox Outbreak: Updates on the Epidemiology, Testing, Treatment, and Vaccination (07/02/2022)
- Updated Case-finding Guidance: Monkeypox Outbreak—United States, 2022
- Clinical Recognition | Monkeypox | Poxvirus | CDC
- CDC Considerations for Monkeypox Vaccination
- Interim Guidance for Treatment of Monkeypox from the New York City Health Department (07/02/2022)
- WHO Monkeypox

The Communicable Disease Control Program is available to help meet the reporting needs of, and answer questions for, San Mateo County providers. To report a disease or outbreak, please call 650-573-2346, Monday through Friday, 8:00 am to 5:00 pm, or fax a Confidential Morbidity Report (CMR) to 650-573-2919. You may download an electronic copy of the CMR at smchealth.org/cmr. Web-based reporting via CalREDIE is also available. Please contact us if you would like to know more about, and sign up for, web-based reporting. Non-urgent questions and/or general inquiries may be directed to SMCCDCcontrol@smcgov.org.

Categories of urgency levels:
Health Alert: conveys the highest level of importance; warrants immediate action or attention.
Health Advisory: provides important information for a specific incident or situation; may not require immediate action.
Health Update: provides information regarding an incident or situation; unlikely to require immediate attention.