



Monkeypox Update

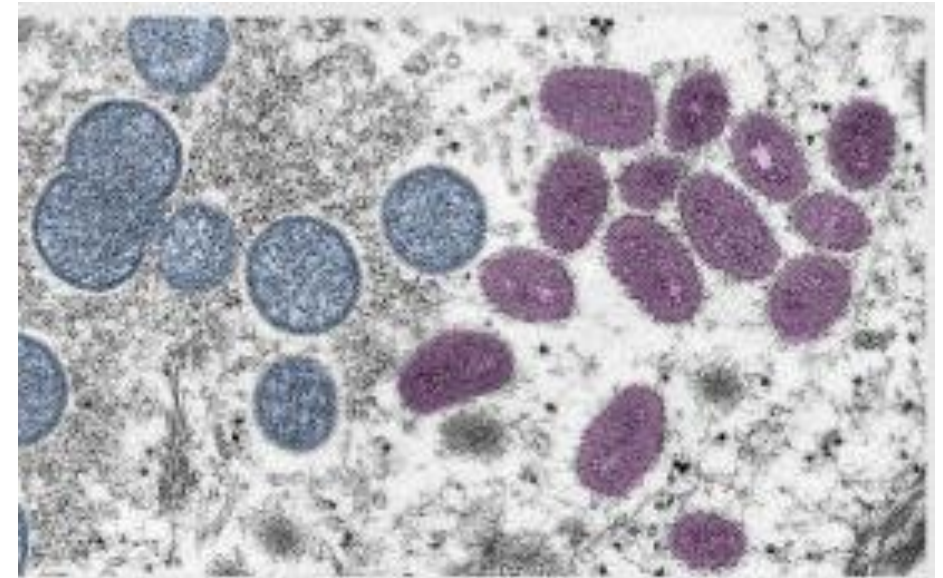
STI WG Meeting

June 28, 2022

Riverside University Health System- Public Health

Agenda

- Background on Monkeypox
- Monkeypox in Riverside County
- Vaccine Storage, Handling, Shelf-life, and Administration Considerations
- Open Q&A Session



Background

What is monkeypox?

- Monkeypox is a rare disease that is caused by infection with the monkeypox virus
- Related to the smallpox virus
 - Generally, less severe
 - Much less contagious
- Spreads from infected humans, animals, and materials contaminated with the virus
 - Primarily through close, personal, often skin-to-skin contact with people who have monkeypox symptoms, such as **rash and sores**
 - Can spread through touching materials used by a person with monkeypox that haven't been cleaned, such as clothing and bedding
 - Can also spread by respiratory secretions (talking, coughing, sneezing, breathing) during prolonged, close, face-to-face contact
 - Thought to be most contagious when symptoms like a rash are present, making it easier for infected individuals to stay away from others to prevent further spread
- Not spread through casual conversations, walking by someone with monkeypox (like in a grocery store), touching items like doorknobs

We are seeing increased cases in the U.S.

- Recent increase in reported cases where monkeypox is not commonly seen, including in the US and California
- As of June 23, 2022, there are over 3,500 suspected or confirmed cases of monkeypox reported from 44 non-endemic countries in the current outbreak (beginning in May 2022).
 - In the US, there have been 173 confirmed cases from 25 states
 - As of June 27, 2022 there are 61 Probable and Confirmed Cases in California residents
- The clade recently identified in Europe and in the US is the West African clade, which tends to cause less severe disease
- The current risk of getting monkeypox in the general public is very low
- Though not exclusively, recent cases have included gay, bisexual, and other men and transgender people who have sex with men, and household contacts
- **Anyone can get monkeypox**, important to recognize and eliminate stigma when discussing monkeypox

Signs and Symptoms

- Might start with symptoms like the flu, with fever, low energy, swollen lymph nodes, and general body aches
- Within 1 to 3 days (sometimes longer) after the appearance of fever, the person can develop a rash or sores
- Sores will go through several stages, including scabs, before healing
 - can look like pimples or blisters and may be painful and itchy
- The rash or sores may be located on or near the genitals or anus but could also be on other areas like the hands, feet, chest, and face. They may also be limited to one part of the body.
- People with monkeypox may experience all or only a few of these symptoms
- **Most people with monkeypox will get the rash or sores**
- Some people have reported developing the rash or sores before (or without) the flu-like symptoms

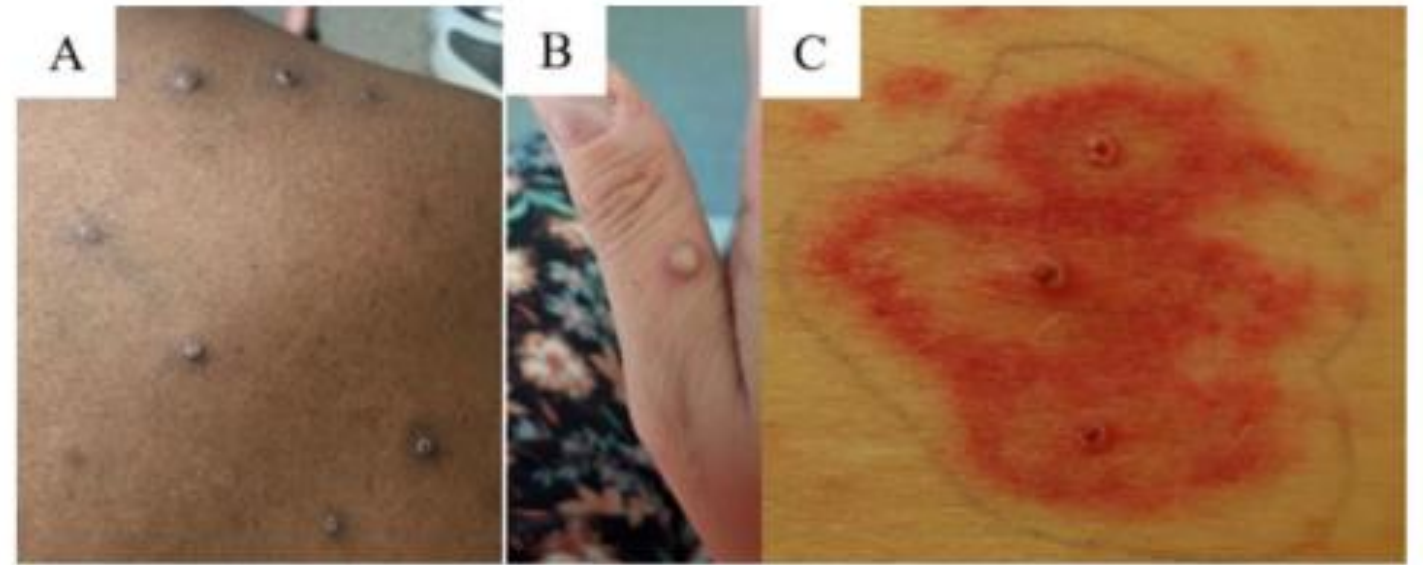
Epidemiologic criteria

- 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.)

What does the rash look like?



Photo credit: UK Health Security Agency



CDC Health Alert Network 6/14/22

The diagnosis of an STI does not exclude monkeypox as a concurrent infection may be present. The clinical presentation of monkeypox may be similar to some STIs, such as syphilis, herpes, lymphogranuloma venereum (LGV), or other etiologies of proctitis.

What treatments are there?



- Treatment
 - Currently there is no treatment approved specifically for monkeypox virus infections and many people infected with monkeypox virus have a mild, self-limiting disease course in the absence of specific therapy.
 - Monkeypox and smallpox viruses are genetically similar, which means that antiviral drugs and vaccines developed to protect against smallpox may be used to prevent and treat monkeypox virus infections
- **Preexposure prophylaxis (PREP)**
 - Because *Monkeypox virus* is closely related to the virus that causes smallpox, the smallpox vaccine can protect people from getting monkeypox
 - Past data from Africa suggests that the smallpox vaccine is at least 85% effective in preventing monkeypox
 - The effectiveness of JYNNEOS™ against monkeypox was concluded from a clinical study on the immunogenicity of JYNNEOS and efficacy data from animal studies
- **Post-exposure prophylaxis (PEP)**
 - Experts also believe that vaccination after a monkeypox exposure may help prevent the disease or make it less severe, the sooner an exposed person gets the vaccine, the better
 - CDC recommends that the vaccine be given within 4 days from the date of exposure in order to prevent onset of the disease
 - If given between 4–14 days after the date of exposure, vaccination may reduce the symptoms of disease, but may not prevent the disease

Isolation

- For individuals with monkeypox, isolation precautions should be continued until all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.

Monkeypox in Riverside County

Monkeypox in Riverside County

As of 6/28/22 we have received 10 inquiries with case report forms, we have 1 probable case (orthopox +), specimen sent to CDC for confirmation

- 5/24: Sent out Public Health Advisory to healthcare providers and posted on our website
- 5/25: Added FAQ for the community to [website](#) and conducted media interviews
- 6/14: received limited supply of smallpox vaccination in Riverside County
- 6/21: report of first probable case (orthopox +)
- 6/22: conversation and collaboration with CDPH about PEP and expanded PREP programs
- Moving from disease control webpage to dedicated monkeypox webpage with all resources being built this week

Reporting and Testing

- Reporting
 - Suspect and confirmed should be reported to RUHS-PH within one day of identification
 - Complete the Monkeypox Intake form and send with photos of the rash via secure email to: bcole@ruhealth.org
 - Day time hours: 951-358-5107; afterhours 951-906-9001
- Testing
 - Patients meeting the epidemiological and clinical criteria should be swabbed following CDPH testing Guidance
 - PH will send a courier to pick up the swabs and transport to San Bernardino PHL, which is the LRN lab approved by CDPH to do Monkeypox testing
 - Swabs that test positive for Orthopox virus PCR (turnaround time – within 24 hours) will be sent to CDC for confirmatory testing. Turnaround time 3-5 days

PEP and PREP strategy

As supply is expanded, sending vaccination to:

- Community health centers
- Outbreak/strike team for at-home or on-site vaccination
- Providing vaccine to healthcare providers treating patients who have had an exposure
- Partnering clinics seeing patients at elevated risk

Storage, Handling, Shelf-life, and Administration Considerations

Vaccination information

- JYNNEOS is a live vaccine produced from the strain Modified Vaccinia Ankara-Bavarian Nordic (MVA-BN), an attenuated, non-replicating orthopoxvirus
- MVA-BN is grown in primary Chicken Embryo Fibroblast (CEF) cells suspended in a serum-free medium containing no material of direct animal origin, harvested from the CEF cells, purified and concentrated by several Tangential Flow Filtration (TFF) steps including benzonase digestion
- JYNNEOS is a sterile vaccine formulated without preservatives
- The vial stoppers are not made with natural rubber latex.

Storage and Shelf-life

- Storage Conditions Keep frozen at -25°C to -15°C (-13°F to +5°F)
- Store in the original package to protect from light
- Do not re-freeze a vial once it has been thawed but can be stored refrigerated for up to 8 weeks
- Once thawed, the vaccine may be kept at +2°C to +8°C (+36°F to +46°F) for 12 hours
- Do not use the vaccine after the expiration date shown on the vial label

Handling and Administration Considerations

- Allow the vaccine to thaw and reach room temperature before use
- Once thawed, the vaccine may be kept at +2°C to +8°C (+36°F to +46°F) for 12 hours. Do not refreeze.
- When thawed, JYNNEOS is a milky, light yellow to pale white colored suspension.
- Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit.
- If either of these conditions exists, the vaccine should not be administered.
- Swirl the vial gently before use for at least 30 seconds. Withdraw a dose of 0.5 mL into a sterile syringe for injection. Administer JYNNEOS by subcutaneous injection, preferably into the upper arm (deltoid).

Resources

- Disease control website: [Riverside County Disease Control \(rivco-diseasecontrol.org\)](http://rivco-diseasecontrol.org)
- CDPH Monkeypox webpage: [Monkeypox \(ca.gov\)](http://Monkeypox.ca.gov)
- CDC Monkeypox webpage: Monkeypox | Poxvirus | CDC
- COCA call tomorrow through CDC: [Webinar June 29, 2022 - Monkeypox: Updates about Clinical Diagnosis and Treatment \(cdc.gov\)](http://Webinar June 29, 2022 - Monkeypox: Updates about Clinical Diagnosis and Treatment (cdc.gov))
- CDC Public Health Partner webinar – scheduled for Thursday, June 30, from 1:00 – 2:00 PM ET (10 – 11 AM PST). Attend for the latest monkeypox updates.
- CDC page on social gatherings, safer sex, and monkeypox
 - <https://www.cdc.gov/poxvirus/monkeypox/sexualhealth/social.html>
- Monkeypox in the U.S.: An Update for Clinicians & the LGBTQ Community (06/13/2022) slides and meeting recordings
 - <https://www.idsociety.org/multimedia/all-videos/monkeypox-in-the-u.s.-an-update/>
 - <https://www.hivma.org/globalassets/hivma/situational-awareness-of-monkeypox-outbreakunited-states-june-2022.pdf>
 - <https://www.hivma.org/globalassets/hivma/monkeypox-what-clinicians-need-to-know.pdf>

Q&A Session

What is your level of interest/capability in partnering for PEP and/or PREP?