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A Monthly Bulletin on Epidemiology and Public Health Practice in Washington

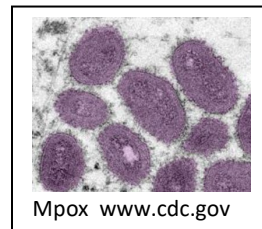
June 2023 Volume 28, Number 6

Mpox Update

In early 2022, mpox (a zoonotic disease previously known as monkeypox) began spreading outside of endemic areas. The resulting 2022 mpox outbreak resulted in national as well as global public health responses. In 2023, public health action is transitioning to a long-term response; however, recent clusters are a reminder of the need to prevent the spread of mpox.

Background

Periodic cases of mpox are known to occur in endemic regions due to animal contact, with rare outbreaks outside of the African subcontinent associated with the rare pet trade and occasional travel-related cases in humans.



In May 2022, a global outbreak of mpox was recognized.

Mpox lesions are typically raised and itchy or painful. Lesions progress through several stages and can be diffuse or highly localized. Atypical lesions, particularly on mucous membranes, may be confused with herpes simplex virus, syphilis, herpes zoster, chickenpox, molluscum contagiosum, scabies, lymphogranuloma venereum, allergic skin rashes, and drug eruptions.

The risk of severe illness or death from mpox was very low in the 2022 outbreak, though mucosal lesions from mpox are often severely painful. Of particular concern are infections involving the eye, which can lead to corneal ulceration, or infections of the anus or genital region, which can cause extreme pain as well as local scarring. Secondary bacterial infection, abscesses, or proctitis can occur. Mpox infection can be severe if a person is immunocompromised, for example with untreated HIV infection, causing complications including pneumonia, sepsis, organ failure, and rarely death.

Mpox testing is widely available through clinical laboratories; after consultation with the local health jurisdiction testing can be performed at the Washington State Public Health Laboratories. The specimen should be collected by a person wearing appropriate personal protective equipment. A swab of the surface of a lesion can be tested. Healthcare providers should **not** use a sharp instrument to unroof a lesion for collecting a specimen; unroofing lesions was previously recommended but resulted in exposures to providers due to sharps injuries.



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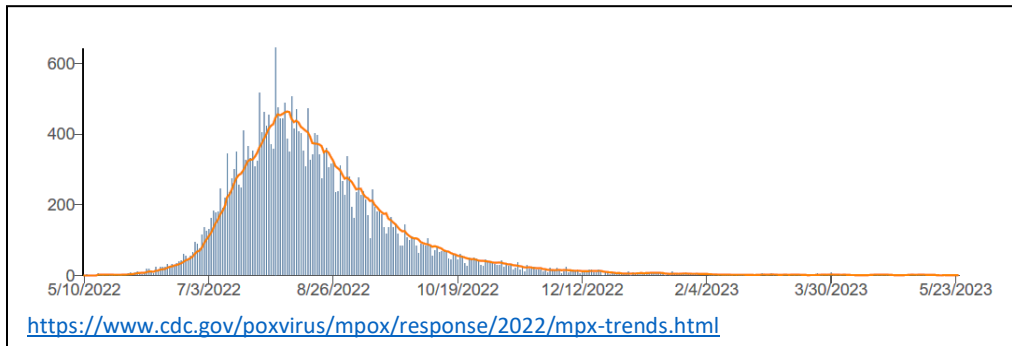
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Mpox 2022 Outbreak Epidemiology

As of June 7th 2023 a total of 30,468 mpox cases were reported in the United States, including 42 deaths. Men who have sex with men have been disproportionately affected. Black or African-American and Hispanic or Latino individuals have also been disproportionately affected. The outbreak in this country peaked by August 2022, presumably due to a combination of vaccination, infection-induced immunity, and changes in sexual behavior, but a few cases continue to occur.



Prevention and Treatment

JYNNEOS vaccine is FDA-approved to prevent smallpox and mpox infections. In August 2022, an intradermal route using a lower dose (rather than traditional subcutaneous administration) was given FDA emergency authorization to increase the number of doses available. Vaccine-induced immunity is not complete, but reduces the incidence of infection and may reduce the severity of symptoms if infected. Vaccination remains the major preventive measure. Currently, CDC recommends vaccination against mpox for people with increased risk of infection. Two-dose JYNNEOS vaccination should be offered to anybody requesting it, including people who:

- Have known or suspected mpox exposure, including a sex partner diagnosed within the last 2 weeks
- Are gay, bisexual, and other men who have sex with men, or transgender or nonbinary people (including adolescents in any of the categories) and in the past 6 months had:
 - A new diagnosis of one or more sexually transmitted diseases (e.g., chlamydia, gonorrhea, syphilis), or
 - More than one sex partner
- Had any of the following in the past 6 months
 - Sex at a commercial sex venue, or
 - Sex in association with a large public event in a geographic area where mpox transmission is occurring, or
 - Sex in exchange for money or other items
- Are sex partners of people with the above risks
- Anticipate experiencing any of the above scenarios
- Have HIV infection or other causes of immunosuppression with recent or potential anticipated mpox exposure
- Have potential for exposure at work (e.g., laboratory work with orthopoxviruses)

Post-exposure vaccination can be given or presumed exposure (i.e., household or sexual contact with someone with suspected or confirmed mpox). Give vaccine as soon as possible, ideally within 4 days of exposure; there may be some protection against mpox if given within 14 days.

Under an expanded access investigational new drug protocol, the antiviral tecovirimat can be used for treatment. Consider treating severe disease, with involvement of mucous membranes where scarring could affect function (eyes, pharynx, genitals, anorectum, or secondary skin infections) or with high risk for severe disease (severe immunocompromise, pregnant or breast feeding, pediatric, or condition affecting skin integrity). Other medical options are commercially available cidofovir, Strategic National Stockpile supplies of brincidofovir, and vaccinia immune globulin. Clinicians should consider enrolling patients in the STOMP tecovirimat clinical trial. Pain management is also important, with over-the-counter medications, topical steroids and anesthetics, and short-term prescription pain medications to be considered depending on the patient's needs.

Chicago reported a cluster of mpox cases during April and May, 2023, with over two-thirds of cases reporting two vaccine doses. A national CDC Health Alert addressed concerns about an mpox resurgence during spring and summer activities. A related concern is that an estimated 13% of people living with HIV in the US are unaware of their HIV status, and could be at elevated risk for severe disease with mpox infection. Many people at higher risk for mpox exposure are not yet vaccinated. Counseling persons and groups at higher risk, improving vaccination coverage, and promptly diagnosing and reporting cases to public health can help reduce the spread of mpox.

Resources

CDC & Chicago Health Alerts about the 2023 increase in mpox cases in Illinois:

<https://emergency.cdc.gov/han/2023/han00490.asp>

https://www.chicagohan.org/alert-detail/-/alert-details/46678186?p_r_p_categoryId=undefined

Risk assessment for recurrence:

<https://www.cdc.gov/poxvirus/mpox/response/2022/risk-assessment-of-resurgence.html>

https://www.cdc.gov/mmwr/volumes/72/wr/mm7221a1.htm?s_cid=mm7221a1_w

US mpox outbreak: <https://www.cdc.gov/poxvirus/mpox/response/2022/index.html>

Vaccination:

<https://www.cdc.gov/poxvirus/mpox/clinicians/vaccines/vaccine-basics-healthcare.html>

Clinical quick reference:

<https://www.cdc.gov/poxvirus/mpox/clinicians/clinical-guidance-quick-reference.html>

Clinical recognition including photographs of lesions:

<https://www.cdc.gov/poxvirus/mpox/clinicians/clinical-recognition.html>

Specimen submission (Washington): <https://doh.wa.gov/sites/default/files/2022-06/420%20416%20Monkeypox%20Specimen%20Testing.pdf>

Treatment: <https://www.cdc.gov/poxvirus/mpox/clinicians/treatment.html>

Tecovirimat protocol: <https://www.cdc.gov/poxvirus/mpox/clinicians/obtaining-tecovirimat.html>

STOMP clinical trial: <https://www.stomptpox.org/main>

Pain management: <https://www.cdc.gov/poxvirus/mpox/clinicians/pain-management.html>

Treatment failure with untreated HIV: https://wwwnc.cdc.gov/eid/article/29/6/23-0059_article