

Monkeypox Overview for Healthcare Providers

Brooke Rossheim, M.D., M.P.H.
Virginia Department of Health
Office of Epidemiology
November 2, 2022

Outline

1. General Monkeypox Overview
2. Monkeypox Clinical Assessment and Evaluation
3. Monkeypox Infection Prevention and Control for Healthcare Settings
4. Monkeypox Testing
5. Monkeypox Vaccination
6. Monkeypox Treatment and Patient Management

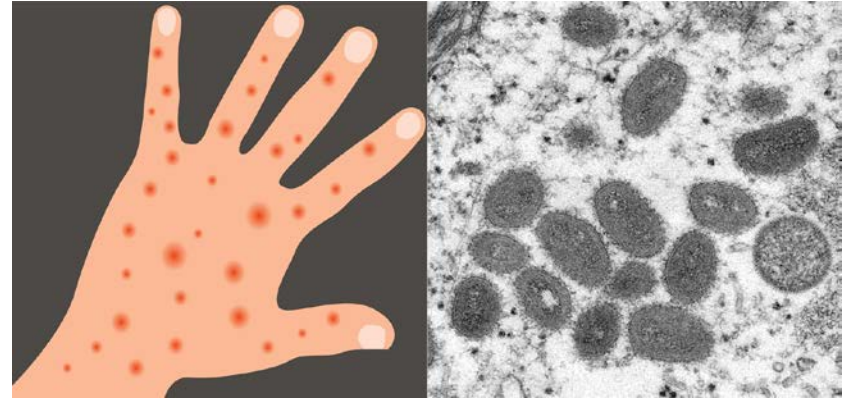
High yield resources for clinicians:

- [CDC Monkeypox Information for Healthcare Professionals](#)
 - [VDH Monkeypox Healthcare Provider Webpage](#)

General Monkeypox Overview

About Monkeypox

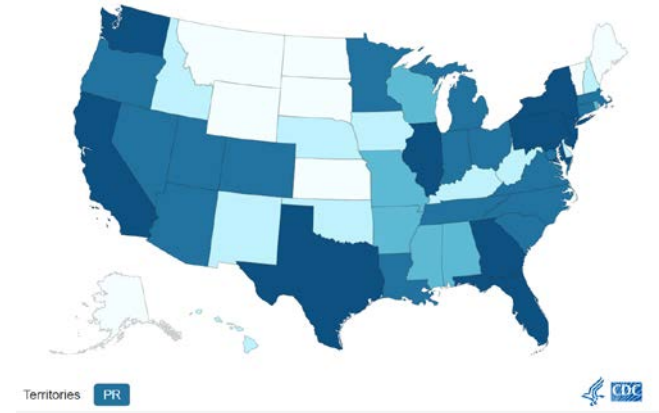
- Caused by *Monkeypox virus*
- Same family of viruses as smallpox
- Two clades
 - Clade II: current global outbreak
- Symptoms similar to smallpox, but milder illness
- Rarely fatal
- Not related to chickenpox



cdc.gov/poxvirus/monkeypox/response/2022/world-map.html

2022 Monkeypox Outbreak

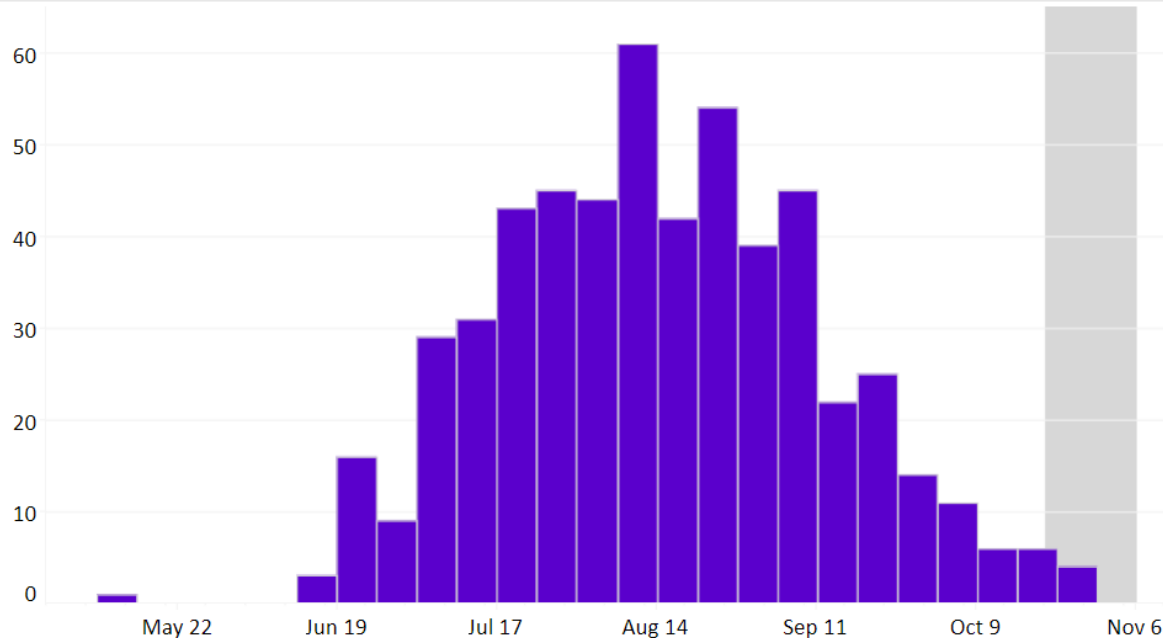
- Multinational outbreak of monkeypox
- Recent [MMWR](#) summary of U.S. cases
 - ~99% have occurred in men
 - ~94% of whom reported recent intimate or sexual contact with other men
 - ~41% had HIV infection
- As of 11/1/2022, six (6) fatal cases of monkeypox in the U.S.
- Reported cases as of 11/1/2022
 - 77,174 cases reported from 109 countries globally
 - 28,442 cases across the U.S.



Data in Virginia

Number of Cases by Week

The graph shows the number of monkeypox cases reported to VDH by the date closest to when the person became ill or got tested for the monkeypox virus.



As of 11/2/22:

- 533 confirmed cases,
- 22 hospitalizations,
- 0 deaths
- 94% male
- Young age groups (20-29, 30-39 years)
- Majority have reported race/ethnicity as Black, followed by white and Latino

Monkeypox Transmission

- Close contact with rash lesions or body fluids
 - Can occur during intimate or non-intimate contact
- Can spread via contaminated materials (e.g., bedding, towels) or large respiratory droplets
- Most cases in people who identify as men who have sex with men (MSM)
 - Anyone can get and spread monkeypox through close contact (cases in females are gradually increasing)
- Incubation Period: 3-17 days
- Infectious from symptom onset until skin lesions have scabbed over, scabs have fallen off, and new skin has formed
- Virus detected in anogenital and urethral samples in people without symptoms, but no cases of transmission linked to exposure to infected persons without signs or symptoms of illness

Monkeypox Clinical Assessment and Evaluation

Clinical Features

- Prodrome
 - Fever, chills, headache, myalgia, back pain, fatigue, lymphadenopathy
 - Present before or after rash, or absent
- Rash 1-3 days after prodrome
 - Oral mucosal lesions
 - Cutaneous lesions progress through stages - macules, papules, vesicles, pustules, scabs
- Generally self-limited illness, lasts 2-4 weeks
 - Lesions can be very painful, itchy
- See CDC's Monkeypox [Clinical Recognition](#) webpage
- Data indicate that people who are immunocompromised for any reason (e.g., advanced HIV disease, receiving cancer chemotherapy, etc.) can be at higher risk of severe or prolonged monkeypox infection

Key Rash Characteristics in Outbreak

- Well circumscribed, firm, deep-seated lesions, often develop umbilication
- Lesions often in genital and anorectal areas or in mouth
- Rash not always disseminated
- May only have a few lesions or even a single lesion
- Rash can be confused with other illnesses



Distinguishing Monkeypox

- Monkeypox rash can be confused with STIs, especially if rash in genital and/or perianal areas
- STI diagnosis does not exclude monkeypox infection
 - Concurrent infections with STIs have been reported
- Comprehensive evaluation
 - History of illness - prodrome, progression of rash, lesions may be painful or itchy
 - Social history clues - obtain sexual history from patient
 - Thorough physical exam looking for skin rashes and types of lesions (lesions in same state of development, umbilication, etc.)
 - Patients with a new or characteristic rash or who meet one or more of the [epidemiologic criteria](#) and in whom there is a high suspicion should be tested for monkeypox.

Patient Evaluation and Diagnosis

- CDC Epidemiologic Criteria
 - Close contact with someone with a rash or who received a diagnosis of confirmed or probable monkeypox
 - Sexual contact with individuals in a social network experiencing monkeypox activity
 - Travel to a country with recent monkeypox cases or prior outbreaks
- Isolate patient - standard and transmission-based precautions
- Contact local health district immediately to report suspected case, either by telephone or using the Confidential Morbidity Report Portal
 - LHD Locator: vdh.virginia.gov/health-department-locator/
- Testing for monkeypox and other illnesses

Resources: Clinical Assessment and Evaluation

- [VDH Monkeypox for Healthcare Providers](#)
- [CDC Clinical Recognition](#)
- [CDC Clinical Considerations for Monkeypox in Children and Adolescents](#)
- [CDC Signs and Symptoms](#)
- [What You Need to Know about Monkeypox if You are a Teen or Young Adult \(print resource\)](#)
- [CDC What Clinicians Need to Know About Monkeypox \(COCA webinar\)](#)

Monkeypox Infection Prevention and Control for Healthcare Settings

Infection Prevention and Control Recommendations: Evaluating a Person Suspected to Have Monkeypox - 1

- Isolate patient in a single room. Special air handling not required
 - Patient should be masked and lesions covered in shared spaces
- HCP should use standard and transmission-based precautions
 - PPE: gown, gloves, N95 respirator, eye protection (goggles or face shield that covers the front and sides of the face)
 - Any procedures likely to spread oral secretions (intubation, extubation, etc.) should be performed in an airborne infection isolation room
- Avoid activities that may spread material from lesions
 - Soiled laundry should be gently and promptly contained; avoid shaking or handling in a manner that may disperse infectious material
 - Avoid use of portable fans, dry dusting, sweeping, and vacuuming

Infection Prevention and Control Recommendations: Evaluating a Person Suspected to Have Monkeypox - 2

- When testing, collect specimens following [CDC IPC guidance](#)
- Manage waste according to [U.S. Department of Transportation \(DOT\) Hazardous Materials Regulations](#) and [state and local regulations](#)
 - If patient does **not** have known epi risk for *Monkeypox virus* Clade I exposure (e.g., history of travel to the Democratic Republic of the Congo (DRC), the Republic of Congo, the Central African Republic, Cameroon or Gabon in prior 21 days), patient waste may be managed as Regulated Medical Waste.
 - If patient has risk for Clade I exposure, waste should be managed as Category A pending clade confirmation.

Monkeypox Transmission in Healthcare Settings

- Exposure through needle stick injury, direct contact with the specimen or skin lesions, or aerosols generated in a laboratory
- HCPs collecting specimens should wear gloves, gown, N95 respirator, and eye protection (goggles or face shield)
- No need to de-roof skin lesions to collect specimens - can lead to unnecessary exposure to lesion - recent case of a nurse in Florida who acquired monkeypox via needlestick

Patients with Monkeypox: Isolation & Prevention Practices in a Non-healthcare Setting - 1

- CDC recommends that people with monkeypox isolate at home or another location for the duration of the illness - applies to adults and children
- Current data suggest that people are contagious from the time symptoms start until all symptoms are resolved and all skin lesions are fully healed
- Typical duration of isolation is 2-4 weeks

Patients with Monkeypox: Isolation & Prevention Practices in a Non-healthcare Setting - 2

- Until all signs and symptoms of monkeypox illness have fully resolved, patients should be advised about the following:
 - Do not share items that have been worn or handled with other people or animals. [Launder or disinfect](#) items that have been worn or handled and [surfaces](#) that have been touched by a lesion.
 - Avoid close physical contact, including sexual and/or close intimate contact, with other people.
 - Avoid sharing utensils or cups. Items should be cleaned and disinfected before use by others.
 - Avoid crowds and [congregate settings](#).
 - Wash hands often with soap and water or use an alcohol-based hand sanitizer, especially after direct contact with the rash.

Patients with Monkeypox: Isolation & Prevention Practices in a Non-healthcare Setting - 3

- Routinely clean and disinfect commonly touched surfaces and items, such as counters or light switches, using an [EPA-registered disinfectant](#) (such as [List Q](#)) in accordance with the manufacturer's instructions.
- Avoid use of contact lenses to prevent inadvertent infection of the eye.
- Avoid shaving rash-covered areas of the body as this can lead to spread of the virus.
- Bathroom usage:
 - If possible, use a separate bathroom if there are others who live in the same household.
 - If there is not a separate bathroom in the home, the patient should clean and disinfect surfaces such as counters, toilet seats, faucets, using an EPA-registered disinfectant (such as [List Q](#)) after using a shared space. This may include during activities like showering, using the toilet, or changing bandages that cover the rash. Consider disposable glove use while cleaning if rash is present on the hands.
- Limit contamination within household:
 - Try to avoid contaminating upholstered furniture and other porous materials that cannot be laundered by placing coversheets, waterproof mattress covers, blankets, or tarps over these surfaces.
 - Additional precautions such as steam cleaning can be considered if there is concern about contamination.

Resources: Infection Control

- [Isolation and Prevention Practices for People with Monkeypox](#)
- [Infection Control: Healthcare Settings](#)
- [Isolation and Infection Control at Home](#)
- [Monitoring and Risk Assessment for Persons Exposed in the Community](#)

Monkeypox Testing

Testing

- Multiple commercial labs offer testing
 - Aegis, LabCorp, Mayo Medical Labs, and Sonic Healthcare use CDC's PCR test to detect non-variola orthopoxviruses; Quest uses its own dual target PCR test to detect non-variola orthopoxvirus and monkeypox viral DNA
 - Not free, out-of-pocket costs vary
 - Refer to lab for ordering and specimen collection information
 - Positive specimens might be sent to CDC for additional characterization
- Public health testing at Division of Consolidated Lab Services (DCLS)
 - Free if patients meet [clinical and epidemiologic criteria](#)
 - **Preapproval by LHD is required**
- **[Patients suspected of having monkeypox \(or who have the illness\) should be tested for HIV and other STIs \(gonorrhea, syphilis, herpes, chlamydia\)](#)**

Specimen Collection

- Wear appropriate PPE
- Collect material from surface of lesion or crust from healing lesion
- Collect 2 swabs from each lesion (2-3 lesions should be sufficient)
 - Prefer different locations or lesions that appear different
- Use sterile synthetic swabs with plastic, wood, or thin aluminum shaft
 - Do not use cotton swabs
- Swab surface of lesion **vigorously** to collect adequate DNA
 - **Do not need to de-roof or lance lesion before swabbing**
- Put each swab into separate container

Guidance if Patient Tests Positive

- Positive test from lab is actionable for clinical and epidemiologic purposes
- Report to [Local Health District](#), if haven't done so already
- Evaluate patient for treatment

- Counsel patient to:
 - Notify close contacts
 - Stay home except for emergencies or medical care
 - Stay away from others in home, including pets
 - Avoid contact with others (including sexual contact)
 - Wear mask if have to be around others at home
 - Do not share items that could be contaminated (linens, clothing)
 - Do not use contact lenses
 - Wash hands often with soap and water or alcohol based hand sanitizer

Resources: Testing

- [CDC Preparation and Collection of Specimens](#)
- [CDC Testing Patients for Monkeypox \(print resource\)](#)
- [CDC Tips for Adequate Collection \(print resource\)](#)
- [NETEC How to collect Monkeypox Specimen - VIDEO](#)
- [NETEC Monkeypox specimen collection - VIDEO](#)
- [NETEC Monkeypox Specimen Collection - Breaking the Swab Shaft - VIDEO](#)

Monkeypox Vaccination

Available Vaccines

- Two [vaccines](#) available for preventing smallpox and monkeypox infection
- JYNNEOS™
 - Replication deficient live attenuated *vaccinia* virus vaccine
 - Approved in 2019 by the FDA for prevention of smallpox and monkeypox for individuals 18 years or older
 - Authorized for individuals less than 18 years of age, under an FDA [Emergency Use Authorization](#) for prevention of monkeypox; EUA for intradermal injection
- [ACAM2000®](#)
 - Replication competent live *vaccinia* virus vaccine
 - FDA licensed in 2007 for people at high risk for smallpox infection
 - Not currently in use in Virginia
 - Should not be given to people with HIV, regardless of immune status

Currently, JYNNEOS is the primary vaccine being used in Virginia

JYNNEOS

- Two dose series, separated by four weeks
- Considered vaccinated two weeks after receipt of second dose
- No visible “take” so no risk for spread to other body parts or people
- Vaccination for healthcare workers prior to vaccine administration is NOT required
- Contraindication: history of severe allergic reaction to previous dose
- Precautions: severe allergic reaction to gentamicin or ciprofloxacin, OR history of severe allergic reaction to chicken or egg protein AND currently avoiding exposure to all chicken or egg products
- Safe for most immunocompromised persons (including people with HIV and/or AIDS)

JYNNEOS Emergency Use Authorization (EUA)

EUA (8/9/22) for immunization of those at high risk for monkeypox infection:

18 years of age and older: should receive an **intradermal** injection. There are 3 exceptions to intradermal administration listed below – these patients should receive a subcutaneous (SC) JYNNEOS injection:

- Patients with a contraindication to ID injection (e.g., current keloids or history of keloid formation or those unable to tolerate ID injections)
- Those under 18 years of age
- If patient refuses an intradermal injection and want SC injection, please give product SC

Under 18 years of age: should receive **subcutaneous** injection only

ID administration: injecting vaccine into the dermis, typically of the volar aspect (inner side) of the forearm

- This should produce a noticeable pale elevation of the skin (wheal)
- The vaccine is given the same way a tuberculin skin test is done
- CDC video of intradermal injection = <https://www.youtube.com/watch?v=TLv1mR6mECQ>

Vaccine Effectiveness

- [Pre-print study](#) from Israel found vaccine effectiveness estimated at 79%. Suggests that a single dose of vaccine is associated with a significantly lower risk for infection in high-risk individuals.
- Recent study (not completely edited) from Netherlands in [Nature Medicine](#) found low antibody response to two-dose JYNNEOS monkeypox vaccine in people who had not previously received a smallpox vaccine. Third vaccination significantly boosts antibody response
- Do not know duration of protection or if protection decreases over time
- CDC is working with its partners to collect data on vaccine safety and vaccine effectiveness
- Peak immunity is expected 14 days after the second dose of JYNNEOS and 4 weeks after vaccination with ACAM2000.
- People who are vaccinated are encouraged to continue to take steps to protect themselves
 - Avoid close, skin-to-skin contact with people who have a rash that looks like monkeypox
 - Avoid contact with objects and materials that a person with monkeypox has used
 - Wash hands often

Traditional Post-Exposure Prophylaxis (PEP)

- Goal is to vaccinate people following known exposure to help prevent illness or minimize severity of illness
- Vaccine works best when given quickly after exposure
 - If given within 4 days of exposure: best chance to prevent onset of symptoms/disease
 - If given between 4 and 14 days of exposure: may reduce, but not prevent, symptoms
- When coupled with self-isolation and other prevention measures, PEP important for preventing further transmission of monkeypox
- If patient already diagnosed with monkeypox, PEP is not indicated

Expanded PEP (or PEP++)

- Goal is to vaccinate people with certain risk factors who are more likely to have had recent exposure, even if they have not had a documented/confirmed exposure
- Virginia recommended groups:
 - Person (of any sexual orientation or gender) who has had anonymous or multiple (more than 1) sexual partners in the last 2 weeks
 - Person (of any sexual orientation or gender) diagnosed with any sexually transmitted infection in the past three months
 - Person (of any sexual orientation or gender) who is living with HIV/AIDS
 - Staff (of any sexual orientation or gender) at establishments or events where sexual activity occurs
 - Sex workers (of any sexual orientation or gender)
 - Check [VDH Healthcare Providers Vaccine Guidance Webpage](#) for latest guidance
- Persons living with HIV or other immune-compromising conditions may be at higher risk for severe outcomes and should be a high priority for vaccination.

Pre-Exposure Prophylaxis (PrEP)

- Goal with PrEP is to vaccinate people whose jobs might expose them to orthopoxviruses, such as monkeypox
- At this time, CDC recommendation is that most clinicians and laboratorians are not advised to receive PrEP
- The following groups may be eligible to receive PrEP based on CDC recommendations
 - Clinical lab personnel who perform testing to diagnose orthopoxviruses, including PCR assays to diagnose orthopoxviruses
 - Research laboratory workers who directly handle cultures or animals contaminated or infected with orthopoxviruses that infect humans
 - Certain designated healthcare and public health response team members for preparedness purposes (i.e. those who plan to administer ACAM2000)

Providers Wanting to Administer JYNNEOS

- States get allocations based on underlying population who may benefit (i.e. HIV+, gay, bisexual, other men who have sex with men (MSM), eligible for HIV PrEP)
- At this time, majority of vaccines are available at local health districts and select community partners who are more likely to care for high risk individuals.
- To enroll as a monkeypox vaccine provider, please complete the following:
 - Review the [HHS Provider Agreement](#) to understand requirements of Monkeypox vaccine providers and prepare to attest to these requirements.
 - Watch the following 7 minute video: [VERIP \(Virginia Electronic Registration for Immunization Programs\) Training Video](#)
 - Email the VaxMaX Help Desk at vaxmax_help@vdh.virginia.gov to declare intent to order and administer the monkeypox vaccines in accordance with the HHS Provider Agreement requirements. VaXMaX will provide next steps for attestation.
 - Review the following VDH resources that may be adapted to fit your practice site.

[Consent Form Template](#)

[Intradermal Injection Training Resources](#)

[Standing Order Template](#)

[Vaccination Checklist](#)

[Vaccine Guide for Private Providers \(VDH\)](#)

- Report vaccine doses administered in VIIS; report adverse events to VAERS

[HHS Monkeypox Vaccination Provider Agreement](#)

[VDH Vaccine Guidance for Healthcare Providers](#)

Resources: Vaccine

Helpful Clinician Resources:

- [Vaccine Administration Errors and Deviations](#)
- [Vaccination Interim Guidance](#)
- [Dosing Intervals](#)
- [Vaccine Administration](#)
- [Interchangeability of Dosing Regimens](#)
- [JYNNEOS Coadministration with Other Vaccines](#)
- [Patient Counseling](#)
- [Vaccine Administration in Special Populations](#)
- [Reporting of Adverse Events](#)
- [General best practice guidelines for immunization](#)
- [Clinician FAQs](#)

Vaccine Resources:

- [JYNNEOS Package Insert](#)
- [JYNNEOS Vaccine Information Statement \(VIS\)](#)
- [JYNNEOS Storage and Handling Summary](#)
- [JYNNEOS Standing Orders \(Standard Regimen\)](#)
- [JYNNEOS Standing Orders \(Alternative Regimen\)](#)
- [JYNNEOS Preparation and Administration Summary \(Standard Regimen\)](#)
- [JYNNEOS Preparation and Administration Summary \(Alternative Regimen\)](#)
- [FDA EUA Fact Sheet for Providers](#)
- [FDA EUA Fact Sheet for Patients and Caregivers](#)

Monkeypox Treatment and Patient Management

Monkeypox Treatment Considerations

- Many individuals infected have mild, self-limiting course
- No treatment specifically approved for monkeypox virus infections, but antiviral drugs used for smallpox may be beneficial
- Treatment may be considered in people with:
 - **Severe disease** (i.e., hemorrhagic disease, confluent lesions, sepsis, encephalitis, ocular or periorbital infections, or other conditions requiring hospitalization)
 - **Involvement of anatomic areas which might result in serious sequelae** (including scarring or strictures), including lesions directly involving the pharynx; penile foreskin, vulva, vagina, urethra, or rectum; anal lesions; and severe infections (including secondary bacterial skin infections)
 - **High risk of severe disease** (i.e., immunocompromising conditions including HIV/AIDS, patients <8 years of age, pregnant/breastfeeding, people with a condition affecting skin integrity, such as atopic dermatitis)

Treatment Options

- Tecovirimat (TPOXX) is the preferred antiviral treatment
- Can be accessed through the federal government's Strategic National Stockpile under an [Expanded Access-IND](#) protocol

Treatment Option	Indication	Formulations Available
Tecovirimat (TPOXX or ST-246) *antiviral	Per EA-IND, for patients with laboratory confirmed non-variola orthopoxvirus infection or suspected infection based on known exposure(s) and/or clinical manifestations of disease	Oral (200 mg capsule)* Injection for intravenous administration *ability to mix with semi-solid food for pediatrics < 13 kg
Cidofovir (Vistide) *antiviral	FDA approved for treatment of cytomegalovirus retinitis in patients with AIDS	Intravenous infusion single-unit vial
Vaccinia Immune Globulin Intravenous (VIGIV)	FDA licensed for treatment of complications due to vaccinia vaccination	Intravenous infusion single-dose vial
Brincidofovir (Tembexa) *antiviral	FDA approved for the treatment of smallpox in adults and pediatrics, including neonates *Not currently available, but CDC is currently developing an EA-IND	Oral (100 mg tablet or 10 mg/mL suspension)

TPOXX Treatment



- TPOXX is FDA-approved treatment of smallpox in adults and children
- Data on effectiveness in treating monkeypox infections in humans are not available
 - Animal studies showed drug effective in treating disease caused by orthopoxviruses
 - A case series of individuals infected with *Monkeypox virus*, which included one patient treated with tecovirimat, suggests that tecovirimat may shorten the duration of illness and viral shedding ([Lancet 2022](#))
- Clinical trials in people showed drug was safe and had only minor side effects
 - Common adverse reactions with oral treatment: headache (12%), nausea (5%), abdominal pain (2%), and vomiting (2%)
- Drug-drug interactions have been reported with repaglinide (hypoglycemia) and midazolam (decreased effectiveness of midazolam).
- If there is an appropriate clinical indication, empiric treatment can be considered prior to laboratory confirmation, especially in the context of limited or delayed testing.

Step-by-Step Instructions for TPOXX Treatment

The following steps are required to obtain and initiate TPOXX treatment:

1. Have the patient sign the Informed Consent Form ([English](#), [other languages](#))
2. Complete the VDH [TPOXX Provider Treatment Initiation Interest Form](#) that includes details on shipping to patient, provider office, or provider office for provider dispensement (labels drug)
3. Submit to CDC by email (regaffairs@cdc.gov) within 7 days of initiating treatment:
 - [Patient Intake Form](#) - required for each individual prescription
 - [FDA Form 1572](#) - only 1 signed form *per facility*
4. Complete the [TPOXX Inventory & Patient Initiation Survey](#) for **all** patients who are started on TPOXX
5. Report any life-threatening or serious adverse events associated with TPOXX by sending a completed [MedWatch Form](#) to regaffairs@cdc.gov within 72 hours of awareness

Study of Tecovirimat for Human Monkeypox Virus (STOMP) Clinical Trial

- Funded by NIAID (National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health)
- Clinical trial to evaluate the effectiveness of TPOXX
- Adults and children with monkeypox eligible to enroll
 - Aim to enroll > 500 people from up to 80 U.S. clinical research sites
- Open-label arm
 - Patients with severe disease or those at risk for severe disease all receive TPOXX
- Second arm
 - 530 adults randomly assigned in a 2:1 ratio to receive TPOXX or placebo pills for 14 days

Guidance and Supportive Care for Patients

- Educate patients on the natural course of monkeypox illness and isolation/prevention practices.
- While most patients with monkeypox have a mild, self-limited course, all patients should be assessed and given supportive care for management of their symptoms.
 - Symptoms should be addressed early in management.
 - Supportive care includes maintenance of fluid balance, pain management, treatment of bacterial superinfections, co-occurring sexually transmitted infections, or superimposed bacterial skin infections.
 - Supportive care may require hospitalization in patients with dehydration, severe pain, or complications.

Clinical Considerations for Pain Management

- Healthcare professionals should assess pain in all patients with monkeypox virus infection and recognize that substantial pain may exist from mucosal lesions not evident on physical exam.
 - Topical and systemic strategies should be used to manage pain.
- General pain control: OTC medications (e.g., acetaminophen, NSAIDs)
- Local pain control: Topical steroids and anesthetics such as lidocaine
 - Topical lidocaine or other topical anesthetics should be used with caution on broken skin or on open or draining wounds.
- Prescription pain meds such as gabapentin and opioids have been used for short-term management of severe pain. Consider the risks/benefits.
- Appropriate pain control may require hospitalization.

Management of Rash and Skin Lesions

- Instruct patients to monitor for any increased redness, warmth, or purulence around lesions and seek care if these develop.
- Pruritis: Oral antihistamines; Topical agents such as calamine lotion, petroleum jelly, or colloidal oatmeal
- Oropharyngeal lesions: Clean saltwater gargle four times a day, oral antiseptic (e.g., chlorhexidine mouthwash), local anesthetic (e.g., viscous lidocaine), and prescription analgesic mouthwash (sometimes called “magic mouthwash”)
- Genital/ anorectal lesions: Warm sitz baths, for 10 minutes several times a day. Adding Epsom salt, vinegar, or baking soda to the water may be helpful.
 - Sitz baths should be drained and disinfected after use to mitigate risk of autoinoculation or person to person transmission.

Resources: Treatment

- [CDC Treatment Information for Healthcare Professionals](#)
- [CDC Clinical Considerations for Pain Management of Monkeypox](#)
- [CDC Guidance for Tecovirimat Use Under Expanded Access Investigational New Drug Protocol during 2022 U.S. Monkeypox Outbreak](#)
- [CDC Information for Healthcare Providers on Obtaining and Using TPOXX \(Tecovirimat\) for Treatment of Monkeypox](#)
- [CDC Clinical Considerations for Treatment and Prophylaxis of Monkeypox Virus Infection in People with HIV](#)
- [CDC What To Do If You Suspect Monkeypox](#)

CDC can assist physicians in the diagnosis and management of patients with suspected or confirmed monkeypox. If VIGIV or antivirals are needed, or additional information is required, physicians should contact the CDC Emergency Operations Center at 770-488-7100, Monday through Friday 8 AM to 4:30 PM Eastern Standard Time; at other times call (404) 639-2888.

Thank you for your attention!

Questions?