

### WORK SHOULDN'T HURT

# What Healthcare Workers Need to Know to Be Protected from Monkeypox at Work

Healthcare workers are at potentially higher risk of exposure to the monkeypox virus (MPV) if infected patients are present at their facility. While MPV is much less infectious than COVID-19 and does not spread through brief encounters, it is important for healthcare workers to know how to protect themselves and what infection control protocols the employer should implement to identify cases, protect workers and reduce transmission.

## What is MPV?

MPV is an orthopoxvirus related to variola (smallpox), vaccinia (cowpox) and chickenpox. It causes flu-like symptoms and a rash that develops into pustules. MPV spreads from person to person and from animal to human. It is less severe than smallpox.

The strain circulating in the United States is rarely fatal, but it is painful and can cause permanent scarring. People with weakened immune systems, the elderly, children under age 8, people with a history of eczema, and people who are pregnant or breastfeeding are at higher risk for severe outcomes.

Public health efforts are aimed at keeping the disease from becoming endemic in the U.S. and worldwide. The new rapid spread may indicate that the virus has mutated to become more contagious.

## Modes of Transmission

MPV spreads through:

- Direct skin contact with the infectious rash, scabs or bodily fluids;
- Indirect contact with contaminated clothing, bedding and other fomites;
- Respiratory secretions.

Studies have suggested that the virus can be spread via aerosolized particles from lesions, respiratory secretions and contaminated objects. Routes of entry include the mouth, nose, eyes and skin. An infected pregnant person can pass the virus on to a fetus through the placenta.

### MPV Is Not Considered a Sexually Transmitted Disease at This Time

Researchers do not yet know if MPV can be transmitted through semen, vaginal fluids, urine or feces. MPV can be passed via skin-to-skin contact and in respiratory secretions in prolonged physical contact. This includes kissing, cuddling and sexual contact but can also include other non-intimate activities. Healthcare workers need personal protective equipment to prevent infection.

The current outbreak has high rates of known cases among gay and bisexual men and transgender and nonbinary people, but **anyone**, **anywhere can be infected through close personal contact**. It is critical that our efforts do not stigmatize MPV, which may result in people failing to seek medical care, increased infection spread, and stalled contact tracing.

## **MPV Incubation and Infectious Period**

The incubation period is usually one to two weeks but can be as long as 21 days. People are not thought to be infectious during the incubation period, but this is being studied.

The known infectious period is from the onset of symptoms until all lesions have crusted over, the crusts have separated, and a fresh layer of healthy skin has formed.

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Randi Weingarten PRESIDENT Fedrick C. Ingram SECRETARY-TREASURER Evelyn DeJesus Executive vice president



This can take two to four weeks. Patients must isolate during the infectious period to avoid contact with people and animals.

## **MPV Symptoms**

Most people infected with MPV get a rash that develops into pustules on the face, mouth, tongue and body. Many people also experience fever, chills, sore throat, headache, muscle aches and swollen lymph nodes. The swollen lymph nodes can help to diagnose MPV because measles and chickenpox do not include that symptom. Some people may experience severe pain; others will have fewer symptoms. Complications can include pneumonia, encephalitis and eye infections.



The Centers for Disease Control and Prevention urges healthcare providers to be on the lookout for rash illnesses consistent with MPV. <u>What Healthcare Professionals</u> <u>Should Know | Monkeypox | Poxvirus | CDC</u>

## **MPV** Treatment

Many infected people can isolate at home with advice from their healthcare provider about over-the-counter topical agents, antihistamines and pain medication. Some patients will need to be hospitalized and treated with antiviral drugs developed for smallpox or with Vaccinia Immune Globulin Intravenous (VIGIV). Tecovirimat (TPOXX), a new investigational drug is available from the Strategic National Stockpile. <u>Information for Healthcare</u> <u>Providers on Obtaining and Using TPOXX (Tecovirimat) for</u> <u>Treatment of Monkeypox | Monkeypox | Poxvirus | CDC</u>

## Prevention for the General Public

For most people, preventing MPV infection comes down to commonsense hygiene practices:

- Wash hands frequently with soap and water.
- Avoid close, skin-to-skin contact with people who have a rash that looks like MPV.
- Do not handle bedding, towels or clothing of an infected person.

- Do not share eating utensils or cups with an infected person.
- Wear a mask that covers the mouth and nose when around others.
- Clean and disinfect frequently touched surfaces.

## Health and Safety Protections for Healthcare Workers

#### Personal Protective Equipment for Healthcare Workers, Including Environmental Services Workers in Healthcare

The following PPE should be worn for healthcare staff for patients with suspected or confirmed MPV—this includes direct care staff and staff who handle soiled clothing, linen, used dishes, and trash and waste.

- Gown;
- Gloves;
- Eye protection (goggles or face shield); and
- NIOSH-approved and fit-tested N95 respirator or a stronger respirator.

## Healthcare Facilities Protocols for Infection Control and to Protect Workers

Facilities should implement protocols to safely care for patients who are potentially infected with MPV. This must include training for direct care staff and environmental services staff.

### Identification and Isolation

- Implement a screening tool for patients who present with rashes and/or flu-like symptoms.
- Develop a triage protocol to rapidly isolate persons under investigation (PUI) in a single-patient room with its own bathroom. Airborne infection isolation rooms (AIIRs) are preferred.
- Limit patient transport outside of the room. If the patient must be moved, mask the patient and cover exposed skin lesions.
- Provide training to clinical staff involved in triage, isolation and care on case identification, isolation policies and infection-control protocols. <u>Case</u> <u>Definitionst for Use in the 2022 Monkeypox</u> <u>Response | Monkeypox | Poxvirus | CDC</u>
- Ensure adequate supplies of PPE and training.

### **Environmental Services Workers**

- Provide PPE for environmental services (EVS) workers and training on donning and doffing as needed.
- Provide updated training to EVS staff on cleaning and infection-control (IC) protocols.
- Use wet cleaning methods according to IC protocols. Avoid cleaning practices that may aerosolize the virus, including vacuuming, dusting and sweeping.
- Soiled laundry should be gently and promptly contained in the laundry bag designated for infectious material. Avoid contact with lesion material that may be present on the laundry according to facility infection-control procedures. Soiled laundry and trash receptacles must never be shaken.
- Trash bags should be removed before full and tied off without "burping" the air out.

### Notification and Contact Tracing

- Implement a confidential log of patients and staff with confirmed MPV for contact tracing purposes.
- Within 24 hours, notify any employee who was exposed to cases of confirmed MPV and who provided direct care without a gown, gloves, facemask or eye protection. Exposure would include skin-to-skin contact, contact with bodily fluids, or contact with fomites.<sup>1</sup>
- Offer a vaccine to exposed workers as soon as possible after the exposure, but within four days to prevent infection.
- Visitors should be limited to those essential for the patient's care and well-being. Visitors should be required to sign in and out for contact tracing purposes.

### Vaccines

Two smallpox vaccines, ACAM2000 and Jynneos, are effective against MPV and can be used to prevent infection and for post-exposure management. Due to current scarcity, few healthcare workers are receiving pre-exposure vaccines. Most doses are being reserved for post-exposure management. Jynneos can be very effective at preventing MPV if administered within four days of exposure and effective at preventing severe disease if administered between four and 14 days.

Although there is a robust supply of ACAM2000, the CDC does not recommend it for healthcare staff to prevent MPV. ACAM2000 is a live vaccinia virus administered in one dose by pricking the skin. A lesion will develop at the site, and immunity develops in 28 days. People who receive this vaccine must take precautions to prevent the lesion from spreading to other parts of the body or to other people. It has more significant side effects and adverse events than Jynneos. It cannot be given to people with weakened immune systems; those with skin conditions like eczema, dermatitis or psoriasis; or those who are pregnant. ACAM2000 is still offered to military personnel and laboratory staff working with orthopox virus material.

Jynneos (also known as Imvamune or Imvanex) was approved for the prevention of MPV and smallpox by the Food and Drug Administration in 2019 for people 18 and older. Jynneos is a live, attenuated nonreplicating vaccine with two doses given four weeks apart. Immunity is developed two weeks after the second dose. The current supply is limited. More vaccines are expected, but scarcity is likely to continue as Jynneos is made by only one company in the world. The CDC is working with states to deploy Jynneos.

In the U.S., routine smallpox vaccination ended in 1972. Mandatory smallpox vaccines for healthcare workers ended in 1976. Immunity from the vaccine given more than three years prior is likely to be weak.

### Resources

- Monkeypox (ny.gov)
- 2022 U.S. Map & Case Count | Monkeypox | <u>Poxvirus | CDC</u>
- <u>Monkeypox and Smallpox Vaccine Guidance</u>
   <u>Monkeypox | Poxvirus | CDC</u>

For more information, contact the AFT health and safety team at <u>4healthandsafety@aft.org</u> [August 3, 2022]

<sup>&</sup>lt;sup>1</sup> Research is being done to determine if MPV can be transmitted in urine or feces. Until this is known, healthcare workers should be protected under the precautionary principle.