



PRACTICE ALERT

MONKEYPOX

What is monkeypox?

Monkeypox is a form of orthopoxvirus which also includes variola, vaccinia and the more common chickenpox. The first human case was identified in 1970, and most cases have been limited to central and western Africa. However, over 50 countries are now reporting monkeypox cases, including many where monkeypox is not endemic such as the United States.

The current number of cases globally, in the U.S. and by state can be found at <https://www.cdc.gov/poxvirus/monkeypox/response/2022/us-map.html>

How is monkeypox spread?

The virus that causes monkeypox disease can be spread from animal to human or from human to human. In the current outbreak, in counties where monkeypox disease is not endemic, it is being spread person to person. It can be transmitted via respiratory secretions, bodily fluids and skin lesions. Studies have suggested that the virus may be transmitted via airborne particulates. Routes of entry include oropharynx, nasopharynx or intradermal.

The virus can also be transmitted by coming into contact with recently contaminated materials such as clothing, bedding and other linens used by an infected person or animal.

Monkeypox is not, at this time, considered to be a sexually transmitted disease. It is important that public health education not stigmatize specific groups for the spread of monkeypox as this can result in infected persons not coming forward for care, difficulty with contact tracing, and a false sense of security for people who are not part of the stigmatized group.

Are there different strains of monkeypox?

There are 2 common clades (strains) of monkeypox – the Central African, or Congo Basin, clade and the West African clade (there is a call to rename these clades to remove geographic stigma). Based on preliminary data, it appears that the West African clade, which is milder, is the only strain present in the U.S. at this time.

The current rapid person-to-person spread of monkeypox in non-endemic areas leads some scientists to believe that the virus may have mutated to spread more easily amongst humans. For several years African nations, based upon their past history of monkeypox outbreaks, have encouraged other countries to set up surveillance systems to quickly identify monkeypox cases as well as new clades and mutations. However, most countries only began surveillance after the current outbreak began.

How acute can a monkeypox infection be?

In Africa the Congo Basin clade historically has a mortality rate of 10% and the West African clade historically has a mortality rate of 1%. However, in higher income countries, the mortality rate may be lower. So far no one who has been infected in the current outbreak in non-endemic areas has died.

What are common symptoms of monkeypox?

Monkeypox infection typically starts with flu-like symptoms which may include fever, malaise, chills, sore throat, headache and muscle aches as well as lymphadenopathy (swelling of the lymph nodes). Measles and chicken pox do not cause swollen lymph nodes, so this symptom is a significant indicator when diagnosing patients. Some of those infected have reported experiencing severe pain. These symptoms are usually followed by a rash that develops into pustules on the face, mouth, tongue and body. However, not all cases result in these symptoms. Complications from monkeypox infection can include pneumonia, encephalitis and eye infections.

What is the incubation period for monkeypox and when is a person infectious?

The incubation period is usually 1-2 weeks but can last as long as 21 days. At this time it is believed that an infected person is not infectious to others during the incubation period. Further studies are needed to confirm or refute this.

A person is considered infectious from the onset of illness until all lesions have crusted over, those crusts have separated, and a fresh layer of healthy skin has formed under the crust.

How is monkeypox infection treated?

For most patients with monkeypox, the infection resolves on its own after 2-4 weeks. While no antiviral specifically targeted to the monkeypox virus currently exists, patients at high risk of severe complications from monkeypox can be treated with antiviral agents developed to treat smallpox. Vaccinia Immune Globulin Intravenous (VIGIV) may also be considered for high risk patients.

Because of limited testing capacity and the speed with which the outbreak is spreading, many patients are not receiving timely diagnosis which can delay treatment as well as hinder timely contact tracing.

How can monkeypox infection be prevented?

The public can prevent the spread of monkeypox by following these recommendations:

- Wash hands frequently with soap and water.
- Avoid contact with people who may be infected with the virus.
- Practice safe sex, including the use of condoms and dental dams.
- Wear a mask that covers mouth and nose when around others.
- Clean and disinfect frequently touched surfaces.
- Avoid contact with bedding and other materials contaminated with the virus.
- Use PPE when caring for people infected with the virus.

The following PPE should be worn by healthcare workers caring for patients infected with, or under investigation for, monkeypox:

- gown
- gloves
- eye protection (goggles or face shield that covers the front and sides of the face)
- NIOSH-approved particulate respirator equipped with N95 filters or higher

In addition NYSNA recommends that healthcare facilities take the following measures when treating patients with monkeypox, or PUIs for monkeypox:

- Place patient in a single-patient room with its own bathroom. Airborne infection isolation rooms (AIIRs) are preferred and should not be limited to aerosol-generating procedures as studies suggest that airborne transmission of monkeypox is a risk. Information on temporary AIIRs is available by contacting the NYSNA Occupational Health and Safety Representatives.
- Limit patient transport outside of the room.
- If the patient must be moved outside the room, mask the patient and cover exposed skin lesions.
- Dry dusting, sweeping, or vacuuming should be avoided. Wet cleaning methods are preferred.
- Soiled laundry should be handled according to recommended infection control practices avoiding contact with lesion material that may be present on the laundry. Soiled laundry should be gently and promptly contained in an appropriate laundry bag and never be shaken or handled in manner that may disperse infectious material.
- Visitors to patients with monkeypox should be limited to those essential for the patient's care and wellbeing.

Are there vaccines to prevent monkeypox?

There are 2 vaccines that protect against monkeypox infection. These include ACAM2000 and the newer JYNNEOS (also known as Imvamune or Imvanex). Vaccines are currently being used for post-exposure management and not pre-exposure prophylaxis. Vaccines are provided to people with a significant risk of exposure to monkeypox, including healthcare workers treating patients with monkeypox. Healthcare workers who have a high likelihood of occupational exposure to the monkeypox virus may also be offered vaccination as pre-exposure prophylaxis. Vaccines must be given within 4 days of exposure for the best chance of preventing infection and within 4-14 days of exposure to help limit severity of disease. However, because of a shortage of JYNNEOS, not all those who are at risk of monkeypox infection are receiving the vaccine. Increased JYNNEOS vaccine supplies are expected in the near future, but because of production limitations, there may be ongoing problems with adequate vaccine supply. There is an adequate supply of ACAM2000, but it cannot be given to people who have weakened immune systems, skin conditions such as eczema, dermatitis or psoriasis, or are pregnant because the ACAM2000 vaccine contains live vaccinia virus. It also may cause serious side effects in some people.

People are considered fully vaccinated about 2 weeks after their second shot of JYNNEOS and 4 weeks after receiving ACAM2000.

In the U.S. routine smallpox vaccination ended in 1972. Healthcare workers were required to be vaccinated until 1976. Some military personnel received smallpox vaccines until later dates. Those who were previously vaccinated for smallpox may retain some level of immunity against monkeypox. Any nurse who has been previously vaccinated should check with their medical provider regarding their level of continued immunity.

What infection control measures should be in place at my facility?

It is important that healthcare facilities are prepared to quickly identify and isolate patients who are suspected to have monkeypox. Request a copy of your facility's monkeypox infection control plan in order to determine if the following infection control measures are in place:

- Training for nurses on identification and treatment of monkeypox, as well as healthcare facility policies and procedures related to monkeypox.
- Triage procedures to rapidly identify and isolate suspected monkeypox cases, particularly in emergency departments, urgent care units and outpatient care clinics.
- An adequate number of isolation rooms, preferably AIIRs for admitted patients with, or suspected to have, monkeypox.
- An adequate supply of PPE, including respirators, for staff coming into close contact with patients with, or suspected to have, monkeypox. All disposable PPE should be removed and disposed of after every patient care session.
- Procedures to ensure the safe handling of linen in rooms of patients with, or suspected to have, monkeypox.

- Procedures to handle medical waste of patients with confirmed or suspected monkeypox.
- Cleaning protocols that do not disperse lesion materials.
- Policies and procedures that limit visitor and staff contact with patients who have, or are suspected to have, monkeypox.
- Contact tracing and notification procedures to rapidly identify and notify staff who may have been exposed to monkeypox.
- An adequate supply of JYNNEOS to vaccinate staff who may be exposed to monkeypox should they choose to be inoculated.

If you have any questions or concerns about safety related to infection control in your facility, please contact your NYSNA Representative and the NYSNA Health and Safety Representatives at healthandsafety@nysna.org.

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