

Monkeypox (Updated 7/15/2022)

Monkeypox is a contagious disease caused by the monkeypox virus (MPXV) which belongs to the Orthopoxvirus genus and causes a flu-like symptoms and a rash that takes weeks to clear. Historically, monkeypox has mostly been reported within Africa but many countries around the world have reported cases during the 2022 outbreak. Gay, bisexual, and other men who have sex with men make up a high number of the cases in 2022, however, anyone who has been in close contact with someone who has monkeypox is at risk. Many cases in the current outbreak aren't following the usual pattern of symptoms. This atypical presentation includes only a few lesions, no swollen lymph nodes, less fever and other signs of illness.

Disease Summary

| Transmission | Incubation Period | Symptoms and Clinical Presentation | Case Fatality Rate |
|--|---|--|---|
| <ul style="list-style-type: none"> Direct contact with rash, scabs, or body fluids of an infected person or animal Touching items (such as clothing or linens) that previously touched the infectious rash or body fluids Prolonged face-to-face contact or intimate physical contact (e.g. kissing, cuddling, and sex) with infected person through respiratory secretions Pregnant people can spread virus to fetus through placenta | <ul style="list-style-type: none"> Average of 7 to 14 days can range from 5 to 21 Patient is infectious from 5 days before onset of rash until lesions have crusted over and new skin has formed. | <ul style="list-style-type: none"> Fever/chills, headache, muscle aches backache, exhaustion, and swollen lymph nodes. Rash or lesions may appear 1-3 days after initial symptoms as pimples or blisters on the face, inside mouth, hands, feet, chest, genitals, or anus. Onset of rash or lesions without fever has been reported. Atypical presentation has been reported: <ul style="list-style-type: none"> Rash beginning in mucosal, genital or perianal areas Lesions may be localized to specific body site; may not appear on face or extremities; are in different stages of progression at same site Classical prodromal symptoms may be mild, not always occurring before the rash, or do not occur Symptoms such as anorectal pain, tenesmus, and rectal bleeding Rash presentation similar to varicella or some sexually transmitted infections (STI), such as syphilis, herpes, lymphogranuloma venereum (LGV), or other etiologies of proctitis | <ul style="list-style-type: none"> West African Clade has a ~1% CFR. Congo Basin Clade is associated with higher CFR. Currently all confirmed cases in the US are the Western African Clade. |

Progression of Monkeypox Rash



a) early vesicle, 3mm diameter



b) small pustule, 2mm diameter



c) umbilicated pustule, 3-4mm diameter



d) ulcerated lesion, 5mm diameter



e) crusting of a mature lesion



f) partially removed scab

Areas of erythema and/or skin hyperpigmentation are often seen around discrete lesions.

Lesions can vary in size and may be larger than those shown.

Lesions of different appearances and stages may be seen at the same point in time.

The rash associated with monkeypox involves vesicles or pustules that are deep-seated, firm or hard, and well-circumscribed; the lesions may umbilicate or become confluent and progress over time to scabs.

Key Screening Steps

1. **Identify:** Assess the patient for signs and symptoms, travel history, and epidemiological criteria. For assistance, contact facility Infection Prevention and Control.
2. **Isolate:** Initiate prompt triage and isolation. Provide a mask to the patient and a bedsheet or gown to cover any exposed lesions.
3. **Inform:** Notify department and facility leadership and infection prevention and control. Call NYC DOHMH Provider Access Line to ascertain risk: 866-692-3641.

Case Definition

Suspect Case

- New characteristic rash* OR
- Meets one of the epidemiologic criteria and has a high clinical suspicion for monkeypox

Epidemiologic Criteria

Within 21 days of illness onset:

- Report having had contact with a person or people who have a similar appearing rash or received a diagnosis of confirmed or probable monkeypox **OR**
- Is a man who regularly has close or intimate in-person contact with other men, including through an online website, digital application (“app”), or social event (e.g., a bar or party) **OR**
- Traveled to a country with confirmed cases of monkeypox **AND** at least one of the above criteria **OR**
- Traveled to country where MPXV is endemic **OR**
- Contact with a dead or live wild animal or exotic pet that is an African endemic species or used a product derived such animals (e.g., game meat, creams, lotions, powders, etc.)

Exclusion Criteria

A case may be excluded as a probable monkeypox case if:

- An alternative diagnosis can fully explain the illness **OR**
- An individual with symptoms consistent with monkeypox but who does not develop a rash within 5 days of illness onset **OR**
- A case where specimens do not demonstrate the presence of orthopoxvirus or monkeypox virus or antibodies to orthopoxvirus as describe in the laboratory criteria

Note: **Diagnosis of an STI does not exclude monkeypox; concurrent infection may be present.** If suspicion for monkeypox is not high, clinicians may consider instructing the patient to isolate at home for 5 days after the start of fever/prodromal symptoms. During this period, the patient should watch for the development of a rash. If no rash develops after 5 days, the patient may resume normal activity. However, if a rash develops, the patient should contact their PCP (or Virtual ExpressCare if no PCP), who should then alert DOHMH as above.

Infection Prevention

Hand Hygiene

Perform hand hygiene before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves. Use soap and water for at least 20 seconds or use alcohol-based hand rubs. If hands are visibly soiled, use soap and water.

Patient Placement

- Place patient in a private examination room. Keep door closed and minimize entry and exit. Limit transport and movement of the patient outside of the room. Airborne infection isolation room (AIIR) is not required unless conducting aerosol generating procedures.
- Patients requiring intubation and/or extubation and any procedures likely to spread oral secretions should be performed in an AIIR and should be placed on Airborne + Contact + Eye Protection precautions.
- If uncertain or if Varicella is being considered, patients should be placed on Airborne + Contact + Eye Protection precautions until ruled out.
- When outside of the isolation room, patients should wear a face mask to contain secretions and cover lesions with a gown or bedsheet. Keep a log of all persons who care for or enter the room or care area of these patients.

Transmission-based Precautions and PPE

Adhere to **Enhanced Droplet + Contact + Eye Protection Precautions**. Use gown, respirator, goggles or face shield, and gloves. Follow the **SP Level 1 PPE Donning and Doffing Checklist**. **Do not reuse or extend the use of PPE.**

Environmental Infection Control

Handle and dispose of waste as routine hospital regulated medical waste. Handle soiled laundry according to standard practices, avoiding contact with contaminants from the rash that maybe present on the laundry. Do not shake the linens as this could spread infectious materials.

If patient is suspected to have Congo Basin clade based on travel history to Democratic Republic of the Congo, Republic of Congo, Central African Republic, Cameroon, Gabon or South Sudan, keep all waste and patient care equipment in the room, and contact EVS until guidance on handling and disposal is provided.

Diagnostic Testing and Specimen Collection

Monkeypox testing must be ordered in Epic and will be performed at LabCorp.

Specimen collection tutorial can be found on the NYC H+H Monkeypox Resource Hub:
<http://hhcinsider.nychhc.org/sites/monkeypox/Pages/etr.aspx>

Further information regarding specimen collection and testing can be found here:
<https://www1.nyc.gov/site/doh/providers/health-topics/monkeypox.page>

Treatment

Vaccine and therapeutics can be made available in consultation and coordination with NYC DOHMH, as warranted. Further information can be found here: <https://www1.nyc.gov/site/doh/providers/health-topics/monkeypox.page>

Additional Information

- CDC Monkeypox website: <https://www.cdc.gov/poxvirus/monkeypox/about.html>; <https://www.cdc.gov/poxvirus/monkeypox/outbreak/current.html>
- UK Monkeypox website: <https://www.gov.uk/guidance/monkeypox>
- NETEC Monkeypox website: <https://netec.org/2021/07/19/monkeypox-july-2021/>
- CDC Health Advisory: https://www.wadsworth.org/sites/default/files/WebDoc/CDC_HAN_with_Cover_MPox_Final_17June_1655497561508_0.pdf
- NYC DOHMH: <https://www1.nyc.gov/assets/doh/downloads/pdf/cd/monkeypox-what-you-need-to-know.pdf> ;
<https://www1.nyc.gov/site/doh/health/health-topics/monkeypox.page>