



Date: 22/5/2022

To: All Doctors, Nurses and Health Care Workers Health Centers, Hospital and Private Clinics

Sub: Monkey Pox in human

Monkeypox is a rare zoonotic disease that is caused by infection with monkeypox virus. Mostly, it was reported among retained travelers from Nigeria with history of contact with animals. Recently, there are reported cases in UK and other countries of human-to-human transmission without history of travel.

In view of the recent reporting of Monkey Pox in human in different countries, clinicians are requested to be vigilant to patient presenting fever and rash as per the below WHO case definition:

1. Case definition:

Suspected case:

A person of any age presenting in a monkeypox non-endemic country¹ with an unexplained acute rash
AND

one or more of the following signs or symptoms, since 15 March 2022:

- Headache
- Acute onset of fever (>38.5oC),
- Myalgia
- Back pain
- Asthenia
- Lymphadenopathy

AND

for which the following common causes of acute rash do not explain the clinical picture: varicella zoster, herpes zoster, measles, herpes simplex, bacterial skin infections, disseminated gonococcus infection, primary or secondary syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale, molluscum contagiosum, allergic reaction (e.g., to plants); and any other locally relevant common causes of papular or vesicular rash.

[1] Monkeypox endemic countries are: Benin, Cameroon, the Central African Republic, the Democratic Republic of the Congo, Gabon, Ghana (identified in animals only), Ivory Coast, Liberia, Nigeria, the Republic of the Congo, Sierra Leone, and South Sudan

Probable case:

A person meeting the case definition for a suspected case.



AND

One or more of the following:

- has an epidemiological link (face-to-face exposure, including health care workers without eye and respiratory protection; direct physical contact with skin or skin lesions, including sexual contact; or contact with contaminated materials such as clothing, bedding or utensils) to a probable or confirmed case of monkeypox in the 21 days before symptom onset
- reported travel history to a monkeypox endemic country¹ in the 21 days before symptom onset
- has had multiple or anonymous sexual partners in the 21 days before symptom onset is hospitalized due to the illness

Confirmed case:

A case meeting the definition of either a suspected or probable case and is laboratory confirmed for monkeypox virus by detection of unique sequences of viral DNA either by real-time polymerase chain reaction (PCR) and or sequencing.

2. Reporting

Kindly report all suspected cases immediately on Communicable Diseases Hotline 66399868 from 7:00 AM to 10 PM every day including weekends. (Ensure availability of current contact number of the patient)

3. Laboratory investigation:

The of type sample should be collected based on the stage of disease under strict infection control condition as per attached fact sheet and advice of public health team.

Thanking you.

Yours sincerely,


Dr. Mariam AlHajeri
Assistant Undersecretary for Public Health



Monkey Pox fact sheet

Introduction

Monkeypox is a zoonotic disease with incidental human infections that usually occur sporadically in forested parts of Central and West Africa. It was first discovered in 1958 in colonies of monkeys kept for research, hence the name monkeypox.

The first human case of monkeypox was recorded in 1970 in the Democratic Republic of the Congo (DRC). Since then, monkeypox has been reported in other central and western African countries: Cameroon, Central African Republic, Cote d'Ivoire, Democratic Republic of the Congo, Gabon, Liberia, Nigeria, Republic of the Congo, and Sierra Leone. Monkeypox cases in people have occurred outside of Africa linked to international travel or imported animals.

Causative agent

Monkeypox is a rare disease that is caused by infection with monkeypox virus. Monkeypox virus belongs to the Orthopoxvirus genus in the family Poxviridae. The Orthopoxvirus genus also includes variola virus (which causes smallpox), vaccinia virus (used in the smallpox vaccine), and cowpox virus.

There are two clades of monkeypox virus, the West African clade and Congo Basin (Central African) clade. Although the West African clade of monkeypox virus infection sometimes leads to severe illness in some individuals, disease is usually self-limiting.

Reservoir

The natural reservoir of monkeypox remains unknown. However, African rodents and non-human primates (like monkeys) may harbor the virus and infect people.

Incubation period

7–14 days but can range from 5–21 days.

Transmission

Occurs when a person comes into contact with the virus from an animal, human, or materials contaminated with the virus. The virus enters the body through broken skin, respiratory tract, or the mucous membranes.

Animal-to-human transmission may occur by bite or scratch, bush meat preparation, direct contact with body fluids or lesion material, or indirect contact with lesion material, such as through contaminated bedding.

Human-to-human transmission through large respiratory droplets, direct contact with body fluids or lesion material, and indirect contact with lesion material, such as through contaminated clothing or linens.



Symptoms

Prodrome

Include fever, malaise, headache, sometimes sore throat and cough, and lymphadenopathy (swollen lymph nodes).

Lymphadenopathy is a distinguishing feature of monkey pox from smallpox. This is typically occurs with fever onset, 1–2 days before rash onset, or rarely with rash onset. Lymph nodes affected are submandibular, cervical, axillary, or inguinal. It may occur on both sides of the body or just one.

Rash

Following the prodrome, lesions will develop in the mouth and on the body. Lesions progress through several stages before falling off. A person is contagious from the onset of the enanthem through the scab stage.

Stage	Stage Duration	Characteristics
Enanthem		The first lesions to develop are on the tongue and in the mouth.
Macules	1–2 days	Following the enanthem, a macular rash appears on the skin, starting on the face and spreading to the arms and legs and then to the hands and feet, including the palms and soles. The rash typically spreads to all parts of the body within 24 hours becoming most concentrated on the face, arms, and legs (centrifugal distribution).
Papules	1–2 days	By the third day of rash, lesions have progressed from macular (flat) to papular (raised).
Vesicles	1–2 days	By the fourth to fifth day, lesions have become vesicular (raised and filled with clear fluid).
Pustules	5–7 days	By the sixth to seventh day, lesions have become pustular (filled with opaque fluid) – sharply raised, usually round, and firm to the touch (deep seated). Lesions will develop a depression in the center (umbilication). The pustules will remain for approximately 5 to 7 days before beginning to crust.
Scabs	7–14 days	By the end of the second week, pustules have crusted and scabbed over. Scabs will remain for about a week before beginning to fall off.

Pitted scars and/or areas of lighter or darker skin may remain after scabs have fallen off. Once all scabs have fallen off a person is no longer contagious.



Mortality

In Africa, monkey pox has been shown to cause death in as many as 1 in 10 persons who contract the disease.

The case fatality ratio for the West African clade is around 1%, whereas for the Congo Basin clade, it may be as high as 10%.

Investigations:

Days	5-21 days	1-4 days	2-4 weeks	Days to Weeks
Period	Incubation Period	Febrile stage	Rash stage	Recovery
Sample	No Sample collected	Nasopharyngeal Or Oropharyngeal swab	Lesion fluid, lesion roof or lesion crust	Serum

Prevention

There are number of measures that can be taken to prevent infection with monkeypox virus:

- Avoid contact with animals that could harbor the virus
- Avoid contact with any materials, such as bedding, that has been in contact with a sick animal.
- Isolate infected patients from others who could be at risk for infection.
- Practice good hand hygiene after contact with infected animals or humans
- Use personal protective equipment (PPE) when caring for patients.

Treatment

Currently, there is no proven, safe treatment for monkeypox virus infection. However, antivirals, and vaccinia immune globulin (VIG) can be used.

Vaccine

Many studies have shown that smallpox vaccination was 85% effective in preventing monkey pox. Individuals with previous history of smallpox vaccination have milder illness. The old generation smallpox vaccine is no longer available. A new vaccine based on modified attenuated vaccinia virus (Ankara strain) was approved by WHO and FDA for the prevention of monkeypox in 2019

Moreover, the development of both Smallpox and monkeypox vaccines are based on vaccinia virus due to cross-protection afforded for the immune response to orthopoxviruses.



References

1-CDC

<https://www.cdc.gov/poxvirus/monkeypox/index.html>

2-Promed

<https://promedmail.org/>

3-WHO

<https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON381>

4- Massachusetts public health

<https://www.mass.gov/news/massachusetts-public-health-officials-confirm-case-of-monkeypox>

5- UK Health Security Agency (UKHSA).

<https://www.gov.uk/government/news/monkeypox-cases-confirmed-in-england-latest-updates>

6-ECDC

<https://www.ecdc.europa.eu/en/news-events/monkeypox-cases-reported-uk-and-portugal>

NB

For further information, you can check the Monkeypox course on WHO-Open

<https://openwho.org/courses/monkeypox-intermediate>