

FREQUENTLY ASKED QUESTION ON MONKEYPOX INFECTION (Updated on May 21, 2022)

1. What is monkeypox?

Monkeypox is a rare zoonotic viral disease caused by the monkeypox virus, an enveloped double-stranded DNA virus that belongs to the *Orthopoxvirus* genus of the *Poxviridae* family, which also include smallpox, vaccinia, cowpox, camelpox, ectromelia (mousepox) and other viruses.

After smallpox eradication in 1980 and consequent to the cessation of smallpox vaccination, monkeypox emerged as the most prevalent orthopoxvirus infection in humans.

There are two distinct genetic clades of the monkeypox virus - the Central African (Congo Basin) clade and the West African clade. The Congo Basin clade has historically caused more severe disease and was thought to be more transmissible.

The name Monkeypox is a bit of a misnomer because the suspected main reservoir is smaller animals, such as rodents. It was first found in laboratory monkeys in the late 1950s. However, scientists aren't sure if monkeys are the main animal reservoirs (carriers of the virus).

2. What is the prevalence of monkeypox?

Monkeypox has been reported in the tropical rainforest regions of **Central and West Africa**. The central and western Africa are Democratic Republic of the Congo, Republic of the Congo, Cameroon, Central African Republic, Nigeria, Ivory Coast, Liberia, Sierra Leone, Gabon and South Sudan.

It is considered endemic in Democratic Republic of Congo (DRC), with more than 1,000 suspected cases per year since 2005. Nigeria reported a large multistate outbreak in 2017 to 2018.

3. Monkeypox is a zoonotic disease. What is the implicated animal?

Many animal species were found infected with monkeypox virus, including rope and tree species of squirrels, Gambian giant rats, striped mice, dormice and primates. **Rodents** like Gambian giant rats (*Cricetomys gambianus*) and squirrels are suspected to be the **natural reservoirs** of the virus.

4. How widespread is this disease outside Africa?

So far, there were few reported cases outside Africa:

- i. In 2003, the Centres for Disease Control (CDC) reported 47 confirmed and probably human monkeypox cases in six (6) states. Cases were infected after contact with prairie dogs purchased as pet, which was earlier kept in proximity with small mammals imported from Ghana. Investigation revealed some patients get infected after touching sick animals, being bitten, or scratched, and cleaning cage and the animal's bedding. No cases attributed to human-to-human transmission.
- ii. In September 2018, the UK reported two imported cases in travelers returning from Nigeria.
- iii. On 12 October 2018, Israel reported a case, a 38-year-old Israeli man who was working in Nigeria and came back to Israel who had history of contact with dead rodents.
- iv. On 9 May 2019, Singapore reported one case, a Nigerian who entered Singapore on 28 April 2019 and had history of consuming bush meat in Nigeria.
- v. Currently, there is a monkeypox outbreak in the United Kingdom, Portugal, Spain and other European countries currently. As on 20 May 2022, a total of 80 confirmed cases and 30 suspected cases, including nine (9) in England, 17 in Canada, and 23 in Spain. There are also cases in Portugal, Sweden, Italy and France. Two suspected cases have also been reported in the U.S. Canada and Australia.

5. How could I become infected with this virus?

The monkeypox virus is transmitted to humans through a **bite or direct contact** with an infected **animal's blood, body fluids or cutaneous/mucosal lesions**.

Human to human transmission is rare and likely to occur by close contact with the maculopapular rash of infected person or airborne routes.

6. What are the symptoms of the illness?

The incubation period (time from infection to symptoms) for monkeypox is usually **7 to 14 days but can range from 5 to 21 days**. The illness typically lasts for **2 to 4 weeks**. It is characterized by fever, myalgia, headache, lymphadenopathy and rash.

The rash which is first seen about two days after fever onset usually starts on the face and spreads to the arms and legs, 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 concentrated on the face, arm and legs.

The rash starts as a macules and papules and then progresses to become painful vesicles and pustules before scabbing and desquamation over a 2 to 4 weeks period. Unlike in chickenpox where lesions at various stages of development and healing are seen, in monkeypox all the lesions are generally at the same stage.

Lymphadenopathy is observed prior to and concomitant with the rash, which helps differentiate it from smallpox or varicella.

7. What is the risk of infection in Malaysia?

Introduction of monkeypox case might be related to importation. The risk of its spread in Malaysia is very low due to the limited human-to-human transmission.

If there is any, early identification of cases is vital for early case management including isolation and contacts tracing.

8. How will new cases be identified?

Case will present with maculopapular or vesicular rash or pustular, generalised or localised, discrete or confluent

WITH

one or more of the following:

- Fever >38.3 °C
- Intense headache
- Backache
- Myalgia
- Lymphadenopathy
- Intensity asthenia (muscle cramp)

WITH epidemiologic criteria:

- i. Exposure to a suspect, probable or confirmed human case of monkeypox within the incubation period,
OR
- ii. Exposure to wild, captive or pet mammal from or in the African monkeypox endemic countries within the incubation period.

9. Is there a laboratory test to confirm diagnosis?

National Public Health Laboratory (NPHL) and Institute for Medical Research (IMR) have the capacity to do test for monkeypox virus.

Optimal diagnostic specimens are from lesions i.e., vesicular swabs of lesion exudate / fluid or crust, stored in a dry sterile tube (without any viral transport media) and send on ice at 2°C to 8°C. Specimens must reach to the laboratories within 48

hours of collection. It is preferably that more than a sample is taken from a patient for test.

Monkeypox infection is confirmed via isolation of monkeypox virus in culture OR demonstration of the virus DNA by PCR test.

Probable case of monkeypox is when there is a demonstration of virus morphology under electron microscope OR presence of orthopoxvirus in tissue using immunohistochemical test; in the absence of exposure to another orthopoxvirus.

10. How does monkeypox cases being classified?

Monkeypox cases are classified into 3:

- i. **Suspect:** a clinically compatible case that meets epidemiologic criteria that is awaiting laboratory test result.
- ii. **Probable:** a clinically compatible case that is not laboratory confirmed but has epidemiological link to a confirmed or probably monkeypox case.
- iii. **Confirmed:** a clinically compatible case with laboratory confirmed.

11. What is the treatment for monkeypox?

Monkeypox is usually a self-limited disease with the symptoms lasting from 2 to 4 weeks. Severe symptoms common among children and is related to extent of virus exposure and patient's health status.

CDC Atlanta reported that monkeypox outbreak can be controlled with smallpox vaccine, antiviral cidofovir, tecovirimat and vaccinia immune globulin(VIG).

12. Are health workers at risk from the monkeypox patient?

Even though human-to-human infection is limited, health care workers attending to monkeypox patient must implement standard contact and airborne infection control precautions.

13. What is the management of case and contacts?

A monkeypox case should be isolated until all lesions have resolved and scabs separate.

Close contact includes:

- i) Anyone who provided care for the patient including a health care worker or family member, or had other similarly close physical contact,
- ii) Anyone who stayed at the same place (e.g., lived with or visited) as a probable or confirmed case while the case was symptomatic with maculopapular rash.

Contacts with high risk of infections need to be quarantined and monitored for 21 days from the date of last exposure to the confirmed case: for monkeypox symptoms and signs surveillance. Contacts with low risk of being infected are to be placed under active surveillance with twice daily monitoring of their health status.

Asymptomatic contacts should not donate blood, cells, tissue, organs, breast milk or semen while they are under symptom surveillance.

14. Does monkeypox case need to be notified?

Monkeypox is not in the list of notifiable disease under the Prevention and Control of Infectious Disease Act 1988. However, as it is a new and emerging disease, all suspected or probable or confirmed monkeypox cases **must** be notified via **phone** or **fax** or **email** to nearest district health office within 24 hours and followed by notification through e-Notification System.

15. Has WHO recommended any travel or trade restrictions related to this new virus?

At this point of time, based on available information, WHO does not recommend any restriction for travel to and trade with the United Kingdom or any of the list country.

16. What should be done when travelling to monkeypox endemic countries?

Travelers to monkeypox endemic countries should avoid contact with sick, dead or live animals (rodents, marsupials, primates) that could harbor the virus. Do not eat or handle bush meat.

Always practice good self-hygiene including proper hand hygiene using soap and water. Use alcohol-based sanitizer when water and soap is no available. Any illness during travel or upon return should be reported to a health professional. Tell the doctor about all recent travel.

For any further information, **contact:**

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Reference:

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