

ALERT FOR AVIATION PERSONNEL: MPOX DISEASE OUTBREAK FOR AVIATION PERSONNEL

Purpose of this Health Alert

To assist aviation personnel, air traffic navigation operators, airlines/commercial operators, airports, baggage handlers and the general public to mitigate the risk from the potential spread of MPOX Disease on board aircraft among passengers, crew, and airports, and to ensure business continuity models.

REFERENCE

- **World Health Organization (WHO)**
- **IATA (International Air Transport Association) Guidelines**
- **Others.**

This document should be read in conjunction with the SA National Department of Health, WHO, ICAO, IATA and other related agency guidelines.

Mpox Disease Outbreak In South Africa

A global outbreak of Mpox disease, formerly known as Monkey pox, has been ongoing since 2022. According to the World Health Organization a total of 466 laboratory-confirmed cases of Mpox from 22 countries were reported globally in March 2024, illustrating that low-level transmission continues across the world. South Africa is among the countries currently experiencing the outbreak of Mpox, a viral infection which spreads between people, and occasionally from the environment to people, via objects and surfaces that have been touched by a person with Mpox. On the 9th of May 2024, an adult male from Gauteng tested positive for Mpox. The patient had no travel history outside of the country. The total number of laboratory-confirmed cases of Mpox in South Africa has risen to 16 since the outbreak in May 2024, while the death toll is now three. Sequencing data available to date has confirmed that all cases identified in South Africa were clade IIb, which is the clade associated with the ongoing multi-country outbreak. Given the recent cases reported in South Africa, heightened vigilance is required in order to contain the spread of this virus.

What is the cause of Mpox Disease and where is it found?

Mpox infection is caused by the monkeypox virus (MPXV). Transmission occurs in several ways. Various animal species are the natural hosts of this virus, small mammals such as Gambian rats, rope and tree squirrels, and some non-human primates. Transmission from animal to humans (zoonotic) occurs from direct contact with the blood, bodily fluids, and cutaneous lesions of infected animals. Human to human transmission results from close contact, including sexual contact with skin lesions or bodily secretions, and contact with contaminated fomites.

Clinical Presentation of Mpox Disease

The incubation period on average is 7 – 14 days (range 5 – 21 days). Asymptomatic infection has also been described. Initially the infection is characterized by fevers, myalgia, and lymphadenopathy. Rash or skin eruptions usually occur 1 – 3 days later. The rash mainly occurs on the face, hands, feet, perioral areas including tongue, anogenital areas, trunk and sometimes the conjunctivae. Anogenital lesions may be associated with local oedema and features of proctitis (rectal pain, tenesmus, bleeding, discharge). Oral lesions may be associated with features of tonsillitis (sore throat, difficulty swallowing). The number of lesions may vary from a few to hundreds and may coalesce to form large plaques or ulcers. The rash is initially maculopapular, then evolves into vesicles, and thereafter into well circumscribed pseudo- pustules (not fluid or pus filled). The rash is not itchy, lesions are not fluid/pus-filled, and all lesions are usually in the same stage of evolution.

How is Mpox Disease Diagnosed

Mpox is a laboratory diagnosis.

What laboratory tests are used to diagnose Mpox Disease?

Laboratory testing includes PCR testing for the investigation of acute suspected Mpox cases. Additionally, electron microscopy can also be used.

Mpox has two disease phases and different specimens can be collected in each phase.

- During the prodromal phase, specimens to be collected include tonsillar tissue swab with a sterile dry swab, nasopharyngeal swab, acute serum and whole blood (not recommended).
- During the rash/lesion phase, the best diagnostic specimens are taken directly from the rash including dry swab or swab in VTM of lesion exudate/aspirated fluid/biopsy, scab, or crust. More than one lesion should be sampled via vigorous swabbing, preferably from different

locations on the body and/or from different looking lesions. In the absence of skin lesions, swabs can be taken from the oropharyngeal, anal, or rectal area.

How is Mpox Disease treated?

A person is contagious from the onset of the rash until all scabs have fallen off. Treatment is supportive and with antiviral medication. At present, the antiviral Tecovirimat, which is approved for Mpox treatment, is not available in South Africa, but in severe cases or patients at high risk of severe disease the drug can be secured via section 21 approval.

Vaccine

Mpox approved vaccination is also not widely available in South Africa

How should the aviation industry protect itself from being infected with Mpox Disease?

International travelers and aviation stakeholders should be informed about the Mpox outbreak and should receive advice on the prevention and where to seek medical treatment should they develop symptoms.

All Aviation Stakeholders must comply with regulations in the Aviation Pandemic Preparedness plan. Ground Staff and Crew must be able to identify a person or a traveler with Mpox Disease and notify the relevant senior personnel, as per Airport/Airline procedures. All staff must be trained to identify signs and symptoms of Mpox.

As Per SA- CATS 113, relating to Public Health Events of International Concern:

“(9) Air service operators are required to monitor and assess the risk level of transmission of the communicable diseases for each route and monitor risk levels based on the rate of local transmission, passenger numbers, load density, and duration of flight(s) operated as well as any other applicable factors.

(10) Air service operators and airport operators shall conduct continuous risk assessment taking into consideration of the following:

- i. en-route to the airport by public transport.*
- ii. before boarding the aircraft.*

- iii. In line at the check-in counter.*
- iv. waiting in the gate area.*
- v. Security check in point.*
- vi. Immigration check point.*
- vii. access to the aircraft via "jetways" or transport to the aircraft by bus; and*
- viii. other crowded and confined spaces."*

Port health officials have announced that they are developing an outbreak preparedness plan at South Africa's Ports of Entry to deal with Mpox. In response to the 16 cases in South Africa that have been confirmed, the Border Management Authority (BMA) is implementing screening processes for travelers entering the country. According to the BMA, the first phase of screening occurs when the conveyance operator (i.e. the captain of the aircraft and crew members) provides a general declaration of health (declaring that no travelers have reported or were found to be ill on board) in terms of International Health Regulations.

For those that have reported cases of MPox and are experiencing human-to-human transmission, they are required to implement a coordinated response towards the outbreak, engage and protect communities, provide surveillance and public health measures towards the disease and to establish clinical management and infection prevention and control.

CONCLUSION

The SACAA will continue to work with all the relevant stakeholders in ensuring that the local aviation industry is indeed prepared to deal with suspected cases of Mpox Disease. The Authority will also continue to liaise with ICAO, WHO, the National Department of Health and other stakeholders and will continuously review its position in line with the recommendations of the relevant authorities.



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DATE