

Computer Number:135034
Government of India
Ministry of Environment, Forest and Climate Change
CENTRAL ZOO AUTHORITY

B-1 Wing, 6th Floor,
Pandit Deendayal Antyodaya Bhawan,
CGO Complex, Lodhi Road,
New Delhi – 110 003,
cza@nic.in
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CIRCULAR

Sub: Precautions to be undertaken by zoos against Monkeypox – regarding.

The undersigned is directed to communicate this office advisory to zoos for precautions to be taken for Monkey Pox.

2. Monkeypox is a zoonotic disease caused by Monkeypox virus, an Orthopoxvirus. The animal reservoir is unknown, small mammals are thought to maintain the virus in the environments of West and Central Africa. People can get infected with the virus through direct contact with infected animals, often while hunting, trapping, and processing infected animals or the infected body parts and fluids of animals. Small mammals can carry the virus, sometimes without apparent symptoms, while non-human primates can get sick with Monkeypox and have signs of disease like humans.

3. Monkeypox virus can infect a wide range of mammal species, including monkeys, anteaters, hedgehogs, prairie dogs, squirrels, shrews and dogs. Not all animals may have a rash when they have monkeypox. Infected animals can spread Monkeypox virus to people, and it is possible that people who are infected can spread Monkeypox virus to animals through close contact. Monkeypox virus can be found in the rash caused by monkeypox (scabs, crusts, fluids) and infected bodily fluids, including respiratory secretions, and potentially in urine and feces.

4. Detection of Monkeypox in Animals:

- i. The appearance of clinical signs, including the presence of visible skin lesions, will depend on the species and age of the animal, as well as on the clade of monkeypox virus causing the infection.
- ii. Species known as possible "reservoirs" will likely not present any clinical signs of infection.
- iii. In species that present clinical signs of infection with monkeypox virus, animal health professionals should be on the lookout for:
- iv. Increase in body temperature
- v. Appetite changes
- vi. Conjunctivitis and/or ocular discharge
- vii. Coughing or sneezing
- viii. Abnormal sounds during auscultation of the lungs

- ix. Skin lesions with or without pruritus
- x. Palpable lymph nodes

5. Samples to be taken for testing for Monkeypox Virus are as follows:

- i. Swabs taken from lesions
- ii. Scabs
- iii. Conjunctival swabs and/or oral and nasal secretions swabs and/or anal swabs
- iv. Blood

6. Tests that can be conducted for diagnosis are as follows:

- i. Virus Neutralisation Test (VNT) is the recommended diagnostic test for detecting poxvirus antibodies. It takes 2-3 days to do an *Orthopoxvirus* VNT and a fluorescently tagged VACV strain can be used to make identification easier.
- ii. PCR: a pan-pox PCR may be easier to find. However, a specific one to show which strain is causing the infection would be preferable.
- iii. Serology: *Orthopoxvirus* ELISAs

7. In the event of finding a suspected case of Monkeypox the following actions may be considered:

- ii. Ensure good coordination and communication- using a One Health approach, reports to be shared with Animals Husbandry and Public Health Sector departments in the State.
- iii. Use personal protective equipment- including gloves, masks, and disposable protective clothing.
- iv. Ensure that all waste, including medical waste is disposed of in a safe manner and that it is not accessible to rodent and other scavenger animals.
- v. People who are suspected or confirmed to be infected with monkeypox virus should avoid close direct contact with animals, including domestic animals (such as cats, dogs, hamsters, ferrets, gerbils, etc.), livestock and other captive animals, as well as wildlife.
- vi. People should be particularly vigilant around animals known to be susceptible, such as rodents, non-human primates etc.
- vii. Take samples if possible for testing for the presence of virus or evidence of exposure to the virus.

8. Precautions to be taken by animal care personnel are as follows:

- i. Wash hands after handling wild animals
- ii. All biosecurity measures and strict sanitary measures for disposal of personal protective equipment (PPE) etc. used during sampling from affected animals should be followed.
- iii. Take precautions to avoid being bitten or scratched.
- iv. Immediately inform the relevant state and central departments if you find a sick or dead wild animal.
- v. Visit a medical professional as soon as possible in case of a scratch or bite from a wild animal. People who are suspected or confirmed to be infected with monkeypox virus should seek medical attention and avoid close direct contact with animals, including domestic pets, livestock, and other captive animals, as well as wildlife.
- vi. Thorough cleaning and disinfection of affected personnel, premises and

contaminated environment including vehicles plying through slaughter houses, animal holdings should be carried out with appropriate chemicals/ disinfectants [Ether (20%), chloroform, formalin (1%), phenol (2%/15 minutes), sodium hypochlorite (2–3%), iodine compounds (1:33 dilution), quaternary ammonium compounds (0.5%)].

9.Preparedness with specific reference to Bio-security needs may also be assessed and strengthened.

10. Signs and symptoms in people and the precautions to be taken are placed at Annexure 1.

11. Further information available at

- i. <https://www.woah.org/en/disease/monkeypox/>
- ii. <https://www.cdc.gov/poxvirus/monkeypox/index.html>
- iii. <https://www.who.int/news-room/fact-sheets/detail/monkeypox>
- iv. <https://www.ecdc.europa.eu/sites/default/files/documents/Monkeypox-multi-country-outbreak.pdf>

Assistance may be sought from Centre for Animal Disease Research and Diagnostic (CADARD), ICAR-Indian Veterinary Research Institute (IVRI), Bareilly, Uttar Pradesh.

Sincerely,

Sd/

Akanksha Mahajan
Dy Inspector General Of Forest

To

The Chief Wildlife Warden of all States / Union Territories,

Copy forwarded for information / necessary action to:

1. The Joint Secretary (Livestock Health), Dept of Animal Husbandry and Dairying
2. The Joint Director (Wildlife), MoEF&CC.
3. The Director, Indian Veterinary Research Institute, Izzatnagar
4. The Member Secretary of the concerned State Zoo Authority.
5. The Officer in-charge of all recognised zoos.
6. DPA – CZA – to upload on website of the CZA.

sd/

Akanksha Mahajan
Dy Inspector General Of Forest