Swissnoso interim recommendations on infection prevention and control of monkeypox

Version 1.0, 24 May 2022

Epidemiology

Monkeypox occurs in rural regions across Central and West Africa and is primarily a zoonotic disease circulating among small rodents with occasional transmission to monkeys and humans. Very rarely has monkeypox been imported to non-endemic regions through returning travelers. An imported case was detected in the UK on 7 May 2022, followed by other cases identified in the UK and other European countries and North America. Whereas a significant proportion of patients were men who have sex with men (MSM) there is a potential for further community spread.

Transmission

Animal-to-human transmission occurs via bites or by direct contact with bodily fluids. Human-to-human transmission occurs via respiratory droplets and contact with skin lesions or bodily fluids. The virus enters the body through broken skin (even if invisible), respiratory tract or mucous membranes (eyes, nose, or mouth). Contact with contaminated materials, including clothing or linen, may also function as a transmission source. Monkeypox is not considered a sexually transmitted disease, although this route of transmission also seems possible.

Clinical presentation and case definition

The incubation period is 7-14 days (maximum range of 5-21 days). Symptoms of monkeypox are similar to (but milder than) those of smallpox (eradicated), with the main difference being that monkeypox causes generalized or localized neck and axilla lymphadenopathy (which smallpox did not). The usual presentation is an influenza-like illness with lymphadenopathy. Within 0-3 days, a macular rash appears, often starting on the face. The lesions evolve into vesicles/pustules in the mouth, on the face, torso, genitals and eventually the extremities (including the palms of the hands and soles of the feet). Monkeypox is usually a self-limiting disease that resolves within 2-4 weeks. Severe courses may occur in children and immunocompromised individuals. The WHO estimated the case fatality ratio (but based on studies conducted in African countries) to be 3-6%. Possible complications include pneumonitis, encephalitis, and corneal infection with a potential loss of visual acuity. The case definition elaborated by WHO for suspected (and probable/confirmed) cases can be applied to start testing and take appropriate measures.

Diagnostics

PCR is the gold standard, with swabs of skin lesions being the most appropriate specimen. Samples should be sent to the National Reference Center for Emerging Viral Infections (CRIVE). Before sending a specimen to the CRIVE, **please call 079 55 30 922** (24h/7 days): https://www.hug.ch/laboratoire-virologie/formulaires-informations
Specimens from *suspected cases* are to be transported as cat **B UN 3373** (triple layer). Samples from *confirmed cases* are to be transported as Cat. A, UN 2814

(authorized companies in Switzerland, e.g., World Courier and NV Logistics). ***Of note:*** *The local clinical laboratory lead should be informed before sending any samples from patients with suspected or confirmed monkeypox infection*[1]

Infection prevention and control

Current evidence for effective transmission precautions is very limited for acute care hospitals. Swissnoso suggests that any hospital with appropriate facilities can admit suspected patients requiring hospitalization, and mild cases can be isolated at home.

Contact + droplet (aerosol) isolation in a single room in addition to standard precautions

- Healthcare workers (HCWs) wear gloves, gowns, and at least a surgical mask when entering the room (FFP-2 mask optional)
    - If prolonged exposure (> 3 hours) is anticipated, an FFP-2 mask is preferred over a surgical mask.
- HCWs wear safety goggles according to standard precautions (only in case of possible splashes to the face).
- A negative pressure room is not required.
- Terminal disinfection of room required, including linen, duvets, pillow and the bed.
- Maintain isolation until the crusts fall off.

Additional precautions

- Preferably, use disposable (single-use) items and discard them after use.
- For reusable items: disinfect all surfaces of items that have been in contact with the patient or medical personnel before removing them from the room.
- Dispose of contaminated waste (e.g., dressings) according to local facility-specific guidelines
- Use the standard disinfectant available in your hospital for environmental decontamination. Follow the manufacturer's recommendations for concentration, contact time, and care in handling.

Definition of exposure and consecutive preventive measures

HCW: Direct exposure to respiratory droplets, skin lesions or other body fluids without wearing appropriate personal protective equipment.

- HCW may continue to work but should perform syndromic surveillance until day 21 after exposure: When developing fever or an influenza-like illness, they should self-isolate at home and immediately report to occupational health.

Patients: staying in the same room for > 24 hours with a case

---

[1] Monkeypox virus is classified as Advisory Committee on Dangerous Pathogens (ACDP) Hazard Group 3 pathogen. Clinical laboratories must follow corresponding biosafety level (BSL) standards for the analysis of routine laboratory samples (biochemistry, haematology, microbiology) from suspected/confirmed cases, as per Ordinance on the protection of employees against risks from exposure to microorganisms (SAMV/OPTM) https://www.fedlex.admin.ch/eli/cc/1999/445/de See also CDC (2022) https://www.cdc.gov/poxvirus/monkeypox/lab-personnel/lab-procedures.html

- Observe contact patients daily for symptoms and measure body temperature at least daily until day 21 after exposure. When developing fever or other symptoms compatible with monkeypox, contact patients are put into preventive contact and droplet (airborne) isolation until exclusion of monkeypox.

Mandatory reporting

Physicians **must report suspected cases** to their cantonal physician **within 2 hours** (FOPH mandatory notification)[2].

[2] Affenpocken (admin.ch) https://www.bag.admin.ch/bag/de/home/krankheiten/krankheiten-im-ueberblick/affenpocken.html
https://www.bag.admin.ch/bag/de/home/krankheiten/infektionskrankheiten-bekaempfen/meldesysteme-infektionskrankheiten/meldepflichtige-ik/meldeformulare.html#-1611150545

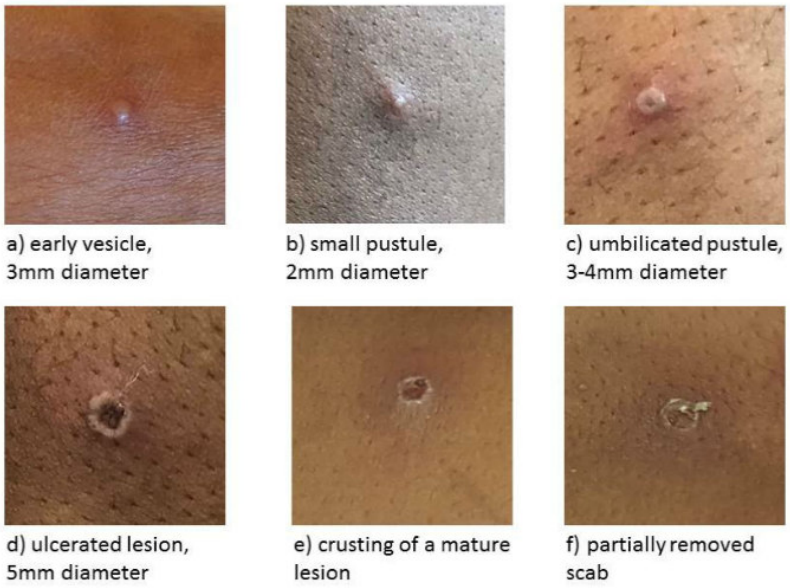
References

TheJournal.ie. UK confirms local transmission of monkeypox, from 22 May 2022. Available online under https://www.thejournal.ie/israel-monkeypox-cases-5770536-May2022/

UK Health Security Agency. Monkeypox. Infectious diseases. Guidance, last update 21 May 2022. Available online under https://www.gov.uk/guidance/monkeypox#infection-prevention-and-control

World Health Organization. Multi-country monkeypox outbreak in non-endemic countries. 21 May 2022. Available online under https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON385

Annex 1 Skin lesions [UK Health Security Agency, 2022]



Images of individual monkeypox lesions