

# Swissnoso interim recommendations on infection prevention and control of mpox (monkeypox)

v2.1, 7 December 2022. Minor changes since v2.0, highlighted in BLUE

## Epidemiology

During the ongoing mpox<sup>1</sup> outbreak, 550 cases have been reported in Switzerland so far, and more than 80,000 cases worldwide. Men who have sex with men (MSM) and sex workers are particularly (but not only) affected. There is still a risk of further spread in the population and nosocomial transmission.

## Transmission

Transmission most often occurs through contact with skin lesions or bodily fluids (hence the high risk of transmission during intimate and sexual contact), but occasionally by respiratory secretions (especially during prolonged face-to-face contact). The virus enters the body through broken skin (even if not visible), the respiratory tract, or mucous membranes (eyes, nose, or mouth). Contact with contaminated materials, including clothing or linen, can also be a source of transmission. There is limited evidence regarding transmission in acute care hospitals. However, recent reports suggest that mpox occupational risk for HCWs is extremely low in well-resourced/non-endemic settings and the European Region. [Marshall 2022, Zachary 2022]

## Clinical presentation and case definition

The incubation period is 7-14 days (maximum range of 5-21 days). Mpox usually presents as a flu-like illness with lymphadenopathy (often generalized or localized on the neck and axillae). Within 0-3 days, a macular rash appears, usually at the site of inoculation, and spreads further. The lesions develop into vesicles/pustules that may be located in the mouth, on the face, trunk, or anogenital area, and eventually on the extremities (including palms and soles). Mpox lesions are very itchy and most commonly present in the same stage. Important differential diagnoses include Varicella-zoster virus (VZV, no lymphadenopathy, lesions in different stages) and herpes simplex virus (HSV, usually no general malaise, vesicles on erythematous skin that are gradually encrusting).

Mpox can present as a painful and disturbing disease but is usually self-limiting and resolves within 2-4 weeks. Severe courses can occur in children and immunocompromised individuals. The case-fatality rate during the current outbreak has been very low (<0.1%). [Mitjà 2022] 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 initiate testing and take appropriate measures.

---

<sup>1</sup> Human monkeypox (MPX). In line with the WHO recommendations of November 28, 2022, the new preferred term "mpox" will from now on be used as a synonym for monkeypox to minimize stigma and other issues related to the former terminology. <https://www.who.int/news/item/28-11-2022-who-recommends-new-name-for-monkeypox-disease>

## Diagnosics

PCR is the gold standard, with swabs of skin lesions being the most appropriate specimen. Unless local/regional<sup>2</sup> testing is available, 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 are to be transported as **Cat B UN 3373** (triple layer) as per national regulations<sup>3</sup>.

**Of note:** *The local clinical laboratory lead should be informed before sending any samples from patients with suspected or confirmed mpox infection<sup>4</sup>*

## Infection prevention and control

Swissnoso suggests that any hospital with adequate facilities can admit suspected patients requiring hospitalization (mild cases can be isolated at home). The infection prevention and control measures listed below provide a high level of protection for HCWs and patients and are based on the possible transmission routes of the mpox virus

### Contact + droplet isolation in a single room in addition to standard precautions

- Healthcare workers<sup>5</sup> (HCWs) wear gloves, gowns, and at least a surgical mask when entering the room
  - o if close contact<sup>6</sup> is anticipated, an FFP-2 respirator is preferred over a Type II surgical mask.<sup>7</sup>
- HCWs wear safety goggles according to standard precautions (only in case of possible splashes to the face).
- A negative pressure room is neither necessary nor required.
- Rooms must be thoroughly disinfected, including standard cleaning of bed linen, duvets, pillows, and the bed.
- Maintain isolation until the crusts fall off.

---

<sup>2</sup> E.g., laboratories at CHUV, USZ, etc. In doubts confirm with the local clinical laboratory lead

<sup>3</sup> as per Multilateral Convention M 347, Federal Roads Office FEDRO (12.08.22) on the transport of monkeypox virus:  
<https://www.astra.admin.ch/dam/astra/de/dokumente/gefahrgut/m347.pdf.download.pdf/M%20347%20d%20CH.pdf>

<sup>4</sup> 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, hematology, 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>

<sup>5</sup> Due to overall low numbers of monkeypox cases in Switzerland and low occupational risk, the use of special frontline staff who would be eligible for pre-exposure vaccination does not seem to be indicated in most places at present. Acute care hospitals considering the use of dedicated staff (e.g., referral centers with increasing case numbers) should discuss this issue with a local/regional IPC expert or occupational health physician).

<sup>6</sup> e.g., close to patient airways, such as providing oral care

<sup>7</sup> in view of the uncertain role of droplet transmission of monkeypox and in case varicella zoster virus has not yet been excluded [European Centre for Disease Prevention and Control, 16 August 2022]

## Additional precautions

- Preferably, use disposable (single-use) items and discard them after use.
- For reusable items: disinfect all surfaces of items that have come into contact with the patient or medical staff 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 during handling.

## Post-exposure definition and management of individuals

**HCW:** Direct contact with skin lesions, body fluids, or respiratory droplets from a confirmed case without wearing appropriate personal protective equipment (at least a surgical mask).

- Assess individuals (without previous mpox) to determine whether mpox vaccination is indicated for post-exposure prophylaxis (PEP)<sup>8</sup>
- HCWs may continue to work but should undertake syndromic surveillance until day 21 after exposure: If they develop fever, flu-like illness, or lesions, they should self-isolate at home and report to occupational health immediately.

**Patients:** Staying in the same room for > 24 hours with a confirmed case (and/or direct contact with skin lesions, body fluids, including respiratory secretions)

- Assess individuals (without previous mpox) to determine whether mpox vaccination is indicated for PEP<sup>9</sup>
- Observe contact patients daily for symptoms and measure body temperature at least daily until day 21 after exposure. If they develop fever or other symptoms compatible with mpox, isolate contact patients by preventive contact and droplet isolation until mpox is ruled out.

## Mandatory reporting

Physicians/hospitals **must report clinical findings concerning laboratory-confirmed cases** to their cantonal physician **within 24 hours**.<sup>10</sup> However, some cantonal physicians still request the reporting of suspected cases. Swissnoso recommends clarifying the notification process with the respective competent health authority.

---

<sup>8</sup> Post-exposure vaccination, once available, may be offered to the HCW based on risk-assessment conducted by the local occupational health department. National recommendations to be followed, under <https://www.bag.admin.ch/bag/de/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/affenpocken/informationen-fuer-gesundheitsfachpersonen.html>

<sup>9</sup> Post-exposure vaccination, once available, may be offered to the patient based on a risk-assessment conducted by the local infectious disease experts. National recommendations to be followed, under <https://www.bag.admin.ch/bag/de/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/affenpocken/informationen-fuer-gesundheitsfachpersonen.html>

<sup>10</sup> as per FOPH <https://www.bag.admin.ch/bag/de/home/krankheiten/infektionskrankheiten-bekaempfen/meldesysteme-infektionskrankheiten/meldepflichtige-ik/meldeformulare.html>.

## References and further reading

Federal Office of Public Health. Monkeypox: situation & assessment - Development of case numbers in Switzerland and Liechtenstein, accessed 5 December 2022 under:

<https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/affenpocken/situation-einschaetzung.html#632586915>

CDC. 2022 U.S. monkeypox outbreak. Accessed 5 December 2022. <https://www.cdc.gov/poxvirus/monkeypox/response/2022/index.html>

Mitjà O, Ogoina D, Titanji BK, Galvan C, Muyembe JJ, Marks M, Orkin CM. Monkeypox. The Lancet. 2022 Nov 17. <https://www.sciencedirect.com/science/article/pii/S014067362202075X>

Bundesamt für Gesundheit BAG. Affenpockenvirus: Informationen für Gesundheitsfachpersonen einschliesslich Impfeempfehlungen

<https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/affenpocken/informationen-fuer-gesundheitsfachpersonen.html>

Bundesamt für Gesundheit BAG. Infektionskrankheiten melden

<https://www.bag.admin.ch/bag/de/home/krankheiten/infektionskrankheiten-bekaempfen/meldesysteme-infektionskrankheiten/meldepflichtige-ik/meldeformulare.html#-1095080468>

UK Health Security Agency. Monkeypox. Infectious diseases. Guidance, last update 9 August 2022. Available online under

<https://www.gov.uk/guidance/monkeypox#infection-prevention-and-control>

Marshall KE, Barton M, Nichols J, et al. Health Care Personnel Exposures to Subsequently Laboratory-Confirmed Monkeypox Patients — Colorado, 2022. MMWR Morb Mortal Wkly Rep. ePub: 16 September 2022. DOI: <http://dx.doi.org/10.15585/mmwr.mm7138e2>

Zachary KC, Shenoy ES. Monkeypox transmission following exposure in healthcare facilities in non-endemic settings: Low risk but limited literature. Infection Control & Hospital Epidemiology. 2022 Jul;43(7):920-4. <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/98E48E5050C7D97CB2C37CD114F49515/S0899823X22001520a.pdf/div-class-title-monkeypox-transmission-following-exposure-in-healthcare-facilities-in-nonendemic-settings-low-risk-but-limited-literature-div.pdf>

European Centre for Disease Prevention and Control. Monkeypox infection prevention and control guidance for primary and acute care settings. 16 August 2022. ECDC: Stockholm; 2022.

<https://www.ecdc.europa.eu/sites/default/files/documents/Monkeypox-infection-prevention-and-control-guidance.pdf>

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



a) early vesicle,  
3mm diameter



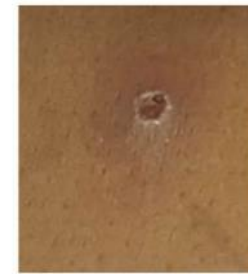
b) small pustule,  
2mm diameter



c) umbilicated pustule,  
3-4mm diameter



d) ulcerated lesion,  
5mm diameter



e) crusting of a mature  
lesion



f) partially removed  
scab