



Revision history

Version	Date published	Revision note
1.0	27 July 2022	Initial document.

PHLN GUIDANCE ON MONKEYPOX PATIENT REFERRAL, SPECIMEN COLLECTION AND TEST REQUESTING FOR GENERAL PRACTITIONERS AND SEXUAL HEALTH PHYSICIANS

Executive Summary

- Monkeypox¹ is confirmed by laboratory testing using nucleic acid amplification (NAA).
- Patient referral and a request for a test should occur after clinical consultation with:
 - jurisdictional public health authorities
 - a specialist microbiologist, or
 - infectious diseases physician.
- Smaller jurisdictions have limited pathology laboratory capacity and capability for monkeypox diagnostic testing. The Department of Health and Aged Care continues to work with PHLN members to ensure adequate capacity. If monkeypox is suspected, testing is recommended.
- Monkeypox is nationally notifiable. Healthcare practitioners should follow jurisdictional notification policy.
- Please read this guidance in conjunction with the [Public Health Laboratory Network \(PHLN\) Monkeypox Laboratory Case Definition \(LCD\)](#)².
- Please raise any questions about specimen collection with a specialist microbiologist³.

Who to refer?

- Patients with a presentation clinically consistent with monkeypox. For example, vesicular exanthem, and who present with a history suggestive of exposure to monkeypox based on epidemiological factors outlined in the [Communicable Diseases Network Australia \(CDNA\) Monkeypox virus infection case and contact management guidelines](#)⁴.
- A clinically consistent presentation includes fever, headache, myalgia, backache, lymphadenopathy, chills, and exhaustion. Lesions can develop in the anorectum, genitals, face, mouth, and/or other areas of the body. Symptoms usually begin between 7–14 days (but can range from 5–21 days) after exposure.

¹ Monkeypox is caused by viruses in the species *Monkeypox virus* in the genus *Orthopoxvirus*.

² <https://www.health.gov.au/resources/publications/monkeypox-laboratory-case-definition>

³ For example, when obvious lesions are absent and in patients presenting with proctitis.

⁴ <https://www.health.gov.au/resources/publications/cdna-monkeypox-virus-infection-case-and-contact-management-guidelines>

Consider specimen collection for other infections, such as herpes simplex, varicella, herpes zoster, molluscum contagiosum, syphilis and orf. If these infections are suspected clinically, the referral should include testing for these specific infections.

Specimens and specimen collection

Personal protective equipment

Wear appropriate personal protective equipment (PPE) while collecting specimens from patients with suspected monkeypox virus infection. This includes a full-length gown, fluid-repellent surgical mask, disposable gloves, and goggles or a face shield. Consider wearing a fit-checked P2/N95 particulate filter respirator (PFRs) or equivalent if:

- the patient has respiratory symptoms, or
- Varicella or measles is suspected, or
- there are other high-risk exposure events. For example, prolonged exposure with the patient (such as a hospitalised patient) or aerosol generating activities.

For more information, please refer to the [Infection Prevention and Control Expert Group \(ICEG\) interim guidance on Monkeypox for health workers](#)⁵. This includes information on environmental cleaning post-consultation.

Wipe the specimen container after the specimen has been collected. Use a suitable detergent, followed by a Therapeutic Goods Administration (TGA) approved hospital-grade disinfectant with activity against viruses. This will be recorded on the label and product information. Alternatively, use a bleach solution. You can also use a TGA-listed 2-in-1 (single step) combined cleaning and disinfection product with activity against viruses. For more information, please refer to the Therapeutic Goods Administration [website](#) for a list of suitable hospital-grade disinfectants⁶. Suitable disinfectants are also available from the [United States Environmental Protection Agency website](#)⁷. After the specimen collection, conduct environmental cleaning as per ICEG advice⁸.

Suitable specimens and specimen collection

Collect lesion material from persons with suspected monkeypox with an active lesion or rash. Acceptable specimen types include lesion fluid, lesion tissue, lesion crust or skin biopsy. It is recommended at least two swabs from morphologically distinct lesions and/or anatomical locations are collected. Collect material using a sterile dry swab (for example, nylon, polyester, or Dacron) suitable for NAA testing. Collect specimens on the tip of the swab, ideally with visible exudate. Vigorously rub the bottom of the lesion to ensure you collect cellular material from the lesion base. You may need to deroof the lesion, with disposable forceps.

If there is no obvious lesion, for example, macular rash alone, discuss approaches with a specialist microbiologist. For patients presenting with proctitis and no visible lesion, insert a swab to sample the anorectal mucosa, avoiding excess faeces contamination. You may need to repeat testing as lesions progress, to increase the diagnostic yield and reduce the risk of a false negative result. Place each specimen in individual sterile containers or collection tubes. Avoid adding transport media as this may dilute the specimen and increase the risk of leakage during transport. If swabs have

⁵ <https://www.health.gov.au/resources/publications/iceg-interim-guidance-on-monkeypox-for-health-workers>

⁶ <https://www.tga.gov.au/disinfectants-sterilants-and-sanitary-products>

⁷ <https://www.epa.gov/pesticide-registration/disinfectants-emerging-viral-pathogens-evps-list-q>

⁸ <https://www.health.gov.au/sites/default/files/documents/2022/06/iceg-interim-guidance-on-monkeypox-for-health-workers.pdf>

already been placed into suitable transport medium (for example, viral transport media) these should also be tested.

Lesion specimens are preferred, however, throat or nasopharyngeal swabs are also suitable specimens. NAA of blood may be considered in specific cases. Whole blood or serum specimens can be tested by NAA to detect the presence of Monkeypox virus. However, these are often negative due to the transient nature of viraemia, and therefore should not be used to exclude monkeypox. A minimum of 5 mL of EDTA whole blood or 10 mL of serum is recommended.

Monkeypox virus may be detected in semen, although evidence is still emerging about the diagnostic yield of this specimen type⁹.

Specimen transport guidelines

Laboratory-based NAA testing for specimens *suspected* to contain monkeypox virus are handled at a different level of risk to confirmed specimens. If there is doubt about the associated level of risk, or any other questions about transport requirements, discuss these cases with the specialist microbiologist to whom the specimens are referred to before transportation.

Following collection, place all swabs used for specimen collection for testing of monkeypox virus, and other pathogens, into specimen bags. Place the bagged specimen(s) in a second specimen bag before transport. Make sure specimen containers and tubes that contain fluid are screwed shut securely to prevent leakage during transport.

For non-solid specimens, for example, blood and urine, place the primary receptacle in a specimen bag with sufficient absorbent material, (for example, cotton wool or tissue), to absorb the entire contents of the primary receptacle. As above, place the bagged specimen in a second container before transport. For additional details on specimen packaging and transportation, refer to the [Requirements for the Packaging and Transport of Pathology Specimens and Associated Materials Fourth Edition 2013](#)¹⁰.

Submit specimens to the testing laboratory as soon as possible. If there is a delay in transport to the laboratory, refrigerate specimens (approximately 4 °C) or frozen (–20 °C or lower). You can store refrigerated specimens for up to 7 days, and frozen specimens for up to a month. Keep the specimens refrigerated during transport to the reference laboratory.

Raise any questions about specimen collection and transport with the specialist microbiologist to whom the specimen is being referred.

Clinical photography

Poor specimen collection can result in failure to detect monkeypox virus DNA.

Clinical photos of lesions and anatomical sites may help specialist microbiologists decide whether further specimen collection is needed.

Discuss the need for and consent for clinical photographs with patients.

⁹ Antinori, A., et al. (2022). "Epidemiological, clinical and virological characteristics of four cases of monkeypox support transmission through sexual contact, Italy, May 2022." *Euro Surveill* 27(22).

¹⁰ <https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-npaac-publication.htm>

Agree on a secure pathway to share clinical photographs with the specialist microbiologist beforehand. Ensure this is in accordance with the *Privacy Act 1988* and other relevant privacy policy¹¹.

¹¹ [Australian Health Practitioner Regulation Authority and National Boards Privacy Policy.](#)
[Australian Medical Association: Clinical images and the use of personal mobile devices.](#)
[Royal Australian College of General Practitioners: Privacy and managing health information in general practice.](#)