Mpox – Infection Prevention & Control Standard Operating Procedure guidance

Version	Date	Author	Status	Comment
01	May	Rana Begum	Final	New SOP developed in line with UKSHA guidance
02	June 2022	Rana Begum	Final	SOP updated line with UKSHA guidance changes
03	June 2022	Rana Begum	Final	SOP updated line on use of PPE with suspected and confirmed cases
04	4th July 2022	Rana Begum	Final	SOP updated to include De-isolation & Discharge of Mpox infected patients
05	1st Aug 2022	Rana Begum	Final	SOP updated including new symptoms for suspected case definition
06	19th Aug 2024	Harriet Ddungu & Rana Begum	Draft	SOP updated including new symptoms for suspected case definition for Clade 1 Mpox.

1. Introduction

Mpox (formerly known as monkeypox) is a disease caused by infection with a virus, known as Monkeypox virus. This virus is part of the same family as the virus that causes smallpox.

2. Background

There are two known clades of MPXV: Clade I and Clade II. Transmission of mpox to humans can be due to zoonotic transmission or person-to-person spread. Historically, Clade I MPXV was associated with zoonotic transmission and known to circulate in 5 African countries; Cameroon, Central African Republic, the DRC, Gabon and the Republic of Congo. Clade I mpox virus (MPXV) is a high consequence infectious disease (HCID) which may be more severe and transmissible than the clade II mpox, which has been present in the UK since 2022.

3. Mpox in the UK

Clade I MPXV has never been identified in the UK and the overall risk of Clade I MPXV to the UK population is considered low. However, given the ongoing outbreaks, it is important to remain alert to cases that have a link to specified countries or with an unusual presentation compared to Clade IIb mpox cases, which have been seen in the UK since 2022. The operational case definition has been updated following the recent changes in mpox epidemiology.

4. Operational case definition

The following patients should be managed as high consequence infectious disease (HCID) cases (pending confirmation of clade type where appropriate):

- Confirmed mpox case where clade I has been confirmed.
- Confirmed or clinically suspected mpox case but clade not yet known.
- There is a travel history to the DRC or specified countries where there may be a risk of clade I exposure,
- A link to a suspected case from specified countries within 21 days of symptom onset
- There is an epidemiological link to a case of Clade I mpox within 21 days of symptom onset.

5. Mode of transmission

Mpox can be passed on from person to person through:

- Any close physical contact with mpox blisters or scabs (including during sexual contact, kissing, cuddling or holding hands).
- Touching clothing, bedding or towels used by someone with mpox
- The coughs or sneezes of a person with mpox when they're close to you.

In parts of Africa, mpox can also be caught from infected rodents (such as rats, mice and squirrels) if:

- you're bitten
- you touch their fur, skin, blood, body fluids, spots, blisters or scabs
- you eat their meat and it has not been cooked thoroughly

6. Symptoms of Mpox

The illness begins with:

- Fever – high temperature
- headache
- muscle aches
- backache
- swollen lymph nodes
- chills
- exhaustion
- joint pains
- Anal pain / bleeding

Within 1 to 5 days after the appearance of fever, a rash develops, often beginning on the face then spreading to other parts of the body. The rash changes and goes through different stages before finally forming a scab which later falls off.

7. Incubation period

The symptoms of *Mpox* begin 5-21 days after exposure with initial clinical presentation of fever, malaise, lymphadenopathy and headache. Within 1 to 5 days after the appearance of fever, a rash develops, often beginning on the face or genital area then spreading to other parts of the body. The rash changes and goes through different stages before finally forming a scab which later falls off. Treatment for *Mpox* is mainly supportive. The illness is usually mild and most of those infected will recover within a few weeks without treatment.

8. Suspected case definition:

A person with an unexplained rash on any part of their body plus one or more classical symptom(s) of Mpox infection and either:

•Has an epidemiological link to a confirmed or probable case of Mpox in the 21 days before symptom onset OR

•Reported a travel history to Central or East Africa in the 21 days before symptom onset OR

•Has unexplained genital, ano-genital or oral lesion(s) (for example, ulcers, nodules) or proctitis (for example anorectal pain, bleeding)

•Acute illness with fever (>38.5oc), intense headaches, myalgia, arthralgia, back pain, lymphadenopathy.

•Such cases should be discussed with local infection consultant (microbiology, virology or infectious diseases).

6.1 Confirmed case definition:

- A person with a microbiological PCR positive result with *Mpox* infection.

6.2 Action on a confirmed case

- All confirmed cases should be assessed for the need for admission based on either clinical or self-isolation requirements.
- All cases should be discussed with the high consequence infectious diseases network
- https://www.nhs.uk/conditions/mpox/#:~:text=GOV.UK%20has%20further%20advice%20for%20people%20infected%20with%20mpox%20who%20are%20isolating%20at%20home

7.0 Infection Prevention & Control Measures:

7.1 Hand hygiene

Hand hygiene should be undertaken with alcohol gel or soap and water. If in contact with body or bodily fluids of suspected Mpox case, we advise to wash hands with soap and water.

7.2 Personal protective equipment

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For **suspected cases**, the minimum PPE is:

- gloves
- FFP3 mask
- eye protection must be used if the case presents with a lower respiratory tract infection with a cough and / or changes on their chest x-ray indicating lower respiratory tract infection) / risk of splashing.
- apron

For **confirmed cases** the minimum recommended PPE for healthcare workers is:

- fit-tested FFP3 respirator
- eye protection/visor
- long sleeved, fluid repellent, disposable gown
- gloves

Ensure correct donning and doffing of PPE to minimize cross transmission**.**

7.3 Isolation of suspected Mpox case

Suspected cases should follow the Suspect Mpox Patient Pathway flow chart on page 10.

*Where possible, pregnant women and severely immunosuppressed individuals (as outlined in the Green Book) should not assess or clinically care for individuals with suspected or confirmed Mpox. This will be reassessed as evidence emerges.

7.4 Specimen collection

Clinical diagnosis of Mpox can be difficult, and it is often confused with other infections such as chickenpox. A definite diagnosis of Mpox requires assessment by a health professional and specific testing in a specialist laboratory.

In the UK, the Rare and Imported Pathogens Laboratory (RIPL) at the UK Health Security Agency (UKHSA) Porton Down is the designated diagnostic laboratory.

Suspected cases should be discussed with the ELFT Infection Prevention & Control team (elft.infectioncontrol@nhs.net) & the Imported Fever Service prior to submitting samples for laboratory testing.

PCR testing is required to microbiological confirm Mpox infection.

Samples from suspect cases should be shipped as Category B diagnostic samples, whilst those from confirmed cases should be shipped as Category A. Further information on diagnostic testing can be found here: https://www.gov.uk/guidance/monkeypox-diagnostic-testing

8. Laundry/ Linen management

Contaminated clothing and linens should be collected and bagged before the room is cleaned. These clothing or linen items should not be shaken or handled in a manner that may disperse infectious particles. Items of potentially infected clothing or linen should be placed in a water soluble (alginate) bag, sealed or tied and placed inside an impermeable bag for transport to the laundry facility. If there are issues with Laundry/ linen please report on Estates & Facilities helpdesk.

Patient clothing should be laundered last, using washing machine on ward, at 60 degree temperature. An empty cycle should then be run to remove any superficial level contamination.

9. Cleaning of the environment

The environment can be cleaned and disinfected as per standard terminal cleaning of an isolation room. The Mpox virus will be destroyed through the use of chlorine (sodium hypochlorite1000ppm). Pay particular attention to frequently touched surfaces such as tables, door handles, toilet flush handles and taps, nursing stations etc. If there are issues with Laundry/ linen please report on Estates & Facilities helpdesk.

10. Clinical waste

Any waste generated from a suspected/confirmed Mpox patient should be dealt with as Hazardous waste. Waste should be discarded in orange coloured bags/ bio-bins.

11. Cutlery

Plastic cutlery can be used in suspected cases. Please ensure risk assessment for health & safety ligature is conducted before using disposable cutlery.

12. Sharps management

Any sharps device used on a suspected/ confirmed case can be disposed of in Yellow sharps bin as usual sharp disposal. No further arrangements are required.

13. Transfers

Should a suspected/confirmed case be required to transfer to a high level infectious disease unit. The transferring staff should wear appropriate PPE as per this SOP. The mode of transportation should be ambulance. Public transport & Taxis **must not** be used. This is because special arrangements are required to clean and decontaminate the vehicle.

14. Discharges

Suspected/confirmed Mpox cases can be discharged to home environment if clinical well. A risk assessment should be conducted for vulnerably household members (pregnant, immunocompromised and children under 12 years of age). Please contact the IPCT (elft.infectioncontrol@nhs.net) for further support.

15. Contact tracing

Contact tracing will be required should there be a confirmed case. A joint risk assessment and follow-up of contacts of confirmed Mpox cases will be conducted. The risk assessment and categorization of contacts is to ensure appropriate isolation advice and vaccination is followed. This will take place by ELFT IPCT and support from UKSHA. Further information can be found here:

https://www.gov.uk/government/publications/monkeypox-contact-tracing

13. Notification of Mpox

13.1 Notifiable Disease

Mpox is a notifiable disease. The medical doctor of suspected/confirmed case should complete the online notification form at this link:

https://www.gov.uk/guidance/notifiable-diseases-and-causative-organisms-how-to-report

13.2 Incident Reporting

An In-phase incident report should also be reported of the suspected / confirmed Mpox case.

Local Health Protection Teams	
East of England –Health Protection Team contact details	**UK Health Security Agency** **Suite 1 First Floor Nexus** **Harlow Innovation Park** **London Road** **Harlow** **Essex** **CM17 9LX** **Email eastofenglandhpt@phe.gov.uk** **Telephone 0300 303 8537** **Out of hours for health professionals only 01603 481 221** **Email for PII phe.eoehpt@nhs.net**
North East North Central – Health Protection Team contact details	**North East and North Central London HPT** **UKHSA North East and North Central London HPT** **3rd Floor, Nobel House** **17 Smith Square** **London** **SW1P 3JR** **Email necl.team@phe.gov.uk** **Telephone 020 3837 7084 (option 0, then option 2)** **Urgent out of hours advice for health professionals only 0151 434 4319 or 020 3837 7084** **Email for PII phe.nenclhpt@nhs.net**

14. Mpox vaccination

The smallpox (MVA) vaccine gives a good level of protection against mpox. The vaccine is offered by NHS to people who are most likely to be exposed to mpox such as:-

- healthcare workers caring for patients with confirmed or suspected mpox
- men who are gay, bisexual or have sex with other men, and who have multiple partners, participate in group sex or attend sex-on-premises venues (staff at these venues are also eligible)
- people who've been in close contact with someone who has mpox – ideally, they should have 1 dose of the vaccine within 4 days of contact, but it can be given up to 14 days after

Further information on Mpox vaccination can be found here:

https://www.gov.uk/government/publications/monkeypox-vaccination

15. Outbreak Management of Mpox

Outbreaks of Mpox will be managed as per the Outbreak Management protocol. Please refer to the Infection Prevention & Control Policy manual.

16. De-isolation & Discharge of Mpox infected patients

This interim guidance has been produced by the UK Health Security Agency (UKHSA) to support NHS Trusts in managing the de-isolation and discharge of Mpox infected patients. Arrangements for individual patients should be considered on a case-by-case basis.

16.1 De-isolation criteria

Before a confirmed Mpox case is de-isolated they must meet the following criteria:

- **Clinical criteria**

  The patient is judged clinically well enough for safe de-isolation as judged by the clinical team managing the patient.

- **Laboratory criteria**

  The patient is polymerase chain reaction (PCR) negative on all 3 of the following samples:

  - EDTA blood*
  - urine
  - throat swab

  *It is acceptable not to send EDTA blood if no sample was sent previously because the patient was well throughout admission.

- **Lesion criteria**

The following criteria all apply:

- there have been no new lesions for 48 hours
- there are no mucous membrane lesions
- all lesions have crusted over, all scabs have dropped off, and intact skin remains underneath

16.2 Discharge from an isolation facility or isolation ward to another healthcare provider

Discharge from an isolation facility/ ward to another healthcare facility can only be considered if the de-isolation criteria in the clinical, laboratory and lesion criteria sections above are all met.

If there is any doubt, clinicians should discuss virological testing of persistent lesions with the

- UKHSA Rare and Imported Pathogens Laboratory (RIPL).

Transfer of patients from an isolation unit in one hospital to an isolation unit in another hospital may be necessary in certain circumstances prior to the patient meeting all of the above criteria. Such arrangements must be made following case-by-case discussion and agreement between specialists at both institutions.

16.3 Discharge from hospital to home

Patients meeting the clinical, laboratory and lesion criteria as stated above can be discharged from hospital to home without requirement for ongoing isolation (that is, full de-isolation).

Patients meeting the clinical criteria but not meeting either laboratory or lesion criteria may be discharged from hospital to continue isolation at home where it is safe to do so after assessment by their treating clinician. They must be able to isolate away from any members of their household who are: children aged under 12, pregnant women or immunosuppressed individuals as per green book definition. They must not go to work, school or public areas and should avoid close contact with other people in their household.

Patients with any lesions should remain in regular contact with their clinician until all lesions have crusted over and all scabs have dropped off. Ongoing contact may be required after de-isolation.

Complex and severe cases, with slow clinical and virological resolution may require additional specialist guidance on risk management following discharge from hospital on a case-by-case basis.

16.4 Caring for Mpox at home

Patients should be given clear safety-netting guidance, including resources detailing what expected symptoms are and how to treat these. They should also map out what the concerning symptoms to look out for are, and when, where and how to escalate and get help at all time periods. Symptom diaries and strategies for monitoring progress and recovery should also be shared, including where appropriate monitoring tools, for example thermometers*, oximeters.*

References/ Sources of information

1. https://www.gov.uk/guidance/hcid-status-of-monkeypox https://www.gov.uk/guidance/monkeypox-diagnostic-testing

2. https://www.gov.uk/guidance/imported-fever-service-ifs

3. Eurosurveillance | Ongoing mpox outbreak in Kamituga, South Kivu province, associated with monkeypox virus of a novel Clade I sub-lineage, Democratic Republic of the Congo, 2024

Suspected Mpox Patient Pathway

A person with an **unexplained rash** on any part of their body plus one or more classical symptom(s) of *Mpox* infection and either:

- Has an epidemiological link to a confirmed or probable case of *Mpox* in the 21 days before symptom onset **OR**
- Reported a travel history to Central and East Africa in the 21 days before symptom onset OR
- Is a gay, bisexual or other man who has sex with men (GBMSM)
- Acute illness with fever (>38.5oc), intense headaches, myalgia, arthralgia, back pain, lymphadenopathy.
- Has unexplained genital, ano-genital or oral lesion(s) (for example, ulcers, nodules) or proctitis (for example anorectal pain, bleeding)

No

Mpox can be ruled out

Yes

Mask patient and isolate in a side room

- Inform Nurse in Charge & Medical Doctor
- Contact Infection Prevention & Control team elft.infectioncontrol@nhs.net
- For Out of hours contact Senior Duty Nurse

Responsible Doctor to assess and call Consultant Microbiologist

No risk

Step down isolation

Complete risk assessment and samples to be collected if meets risk criteria

High risk probable Monkeypox

Staff to continue FFP3 mask, eye protection, apron & gloves. All waste to remain in the room until confirmed PCR negative for Mpox

IPCT will arrange testing & further action

If PCR confirms Mpox, please continue infection control measures. Staff to wear FFP3 masks, long sleeve gown, eye protection/ visor. Patient to be transferred to High level infectious disease unit