



Infection Prevention and Control Precautions for healthcare workers for the management of possible or confirmed Mpox cases

Clade II MPXV (formerly West African clade)

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Ver	Date	Changes from previous version
1.4	04.12.2024	Updated to include links to HCID guidance Updated to include links to the following: Interim Guidance for the Public Health Management of Cases and Contacts of mpox: Chapter 1 Introduction Interim Guidance for the Public Health Management of Cases and Contacts of mpox: Chapter 2 (Clade I Cases and their Contacts) Interim Guidance for the Public Health Management of Cases and Contacts of mpox: Chapter 3 (Clade II Cases and their Contacts) Interim Public Health Risk Assessment for Humanitarian Aid Worker returning from MPXV Clade I Areas General revision and editorial updates.
1.3	04.08.2023	Updated references and links to "Interim Public Health Guidance for the Management of Mpox Cases and Household Contacts" which has been retired to new document "Checklist for Public Health on management of mpox cases and their contacts"
1.2	13.06.2023	Update and change to preferred term mpox replacing monkeypox, in accordance with WHO recommendations. Rewording of West African Clade Monkeypox (WA-MPX) to West Africa (clade II)
1.1	22.09.2022	This guidance refers to West African Clade Monkeypox (WA-MPX) The guidance does not cover Congo Basin Monkeypox CB-MPX clades and management of high consequence infectious diseases (HCID). Changes to declassification of healthcare risk waste from Category A (for HCMI) to category B for WA-MPX, Inclusion of Point of care risk assessment (PCRA). Changes to cleaning and disinfection recommendations
V1.0	03.06.2022	Initial Document

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Introduction

This document provides specific guidance for healthcare workers on infection prevention and control precautions for the management of probable, suspected or confirmed non-HCID clade II strains of mpox virus only.

NOTE: This guidance does not cover Clade I mpox which has specific infection prevention and control requirements. Refer to the following guidance: Infection Prevention and Control Guidance for the management of suspected/ confirmed High Consequence Infectious Diseases (HCIDs) in Acute Healthcare settings, available at: www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/Updated%20HCID%20IPC%20Guidance%2017.10.2024.pdf

This is a stand-alone guidance document as it requires specific detail on the management of mpox in different healthcare settings. It is important to recognise that core elements of infection prevention and control (IPC) are contained within the Department of Health (2023). NCEC National Clinical Guideline No. 30 Infection Prevention and Control, available at: http://health.gov.ie/national-patient-safety-office/ncec/ and therefore this guidance should be read and interpreted in conjunction with the national guidance document, This document was informed by guidance from:

- World Health Organisation (WHO)
- European Centre for Disease Control (ECDC)
- UK Health Security Agency (UKHSA)
- HSE-Health Protection Surveillance Centre (HPSC)

Scope

This guidance applies to all healthcare workers in all healthcare facilities.

Key facts:

Mpox (monkeypox) is a viral illness caused by the monkeypox virus, a species of the genus Orthopoxvirus. There are 2 major genetic groups (clades) of MPXV:

- clade I (formerly known as Central African or Congo basin clade)
- clade II (formerly known as West African clade)

Clade I is split into clade Ia and clade Ib. Clade I mpox remains a HCID. Prior to 2024, Clade I mpox was known to circulate in 5 Central African Region countries, Cameroon, Central African Republic (CAR), the Democratic Republic of the Congo (DRC), Gabon; and the Republic of the Congo, however, in 2024, clade I mpox cases were reported from countries in Africa beyond those five countries listed.

Clade II is split into clade IIb and clade IIa, with subgroup clusters called lineages. The global outbreak of mpox was declared a public health emergency of international concern (PHEIC)

on 23 of July 2022 which was caused by a strain known as clade II b. Since January 2023, clade II mpox is no longer considered a high consequence infectious disease (HCID).

Information on the epidemiology of mpox is available at: https://www.hpsc.ie/a-z/zoonotic/monkeypox/mpoxdataandreports/

Transmission

Mpox is transmitted primarily through 3 main routes:

- direct contact such as contact with the rash, rash fluid or scabs of a person who has mpox, (caring for the individual, sexual partners, and household members).
- indirect contact (fomite): contact with contaminated items, for example bed linen, towels, clothing).
- respiratory droplets: in cases where there is evidence of lower respiratory tract involvement or severe systemic illness requiring hospitalisation, airborne transmission cannot be ruled out. In the context of high consequence infectious disease (HCID) classification, Clade I mpox is classified as an airborne HCID.

Caring for someone with mpox without using appropriate infection prevention and control precautions, for example personal protective equipment (PPE).

Less common routes of transmission:

Where the individual(s) are in countries where mpox is found naturally in animals, and interaction such as touching or handling an animal that is infected with mpox, being bitten or scratched by an animal with mpox, eating bushmeat that is infected with mpox and touching objects contaminated by infected animals (bedding or products from infected animals such as animal hides).

Clinical features and treatment

Mpox infection is usually a self-limiting illness, and most people recover within several weeks.

Severe illness however, can occur in some people. Clade I mpox (as a HCID) is known to cause more severe disease than non-HCID mpox clades with case fatality rates of 10% reported in nonvaccinated individuals previously.

Mpox symptoms generally include a rash. Symptoms usually occur in two stages, however some people only present with a rash.

Stage 1: Sudden onset of fever (higher than 38.5°C) and chills, followed by headache, swollen glands (neck, axillae, groin). Fatigue and muscle aches, respiratory symptoms such as a runny nose and cough, gastrointestinal symptoms (vomiting and diarrhoea).

Note: these symptoms are not seen in all people who present.

Stage 2: An itchy rash which occurs 1-3 days after the onset of fever starts. It may first appear on the face and spread to other parts of the body. The rash generally is only seen on

the face, palms of the hands, soles of the feet and occasionally in the mouth. The rash starts like pimples, that grow and turn into sores. Scabs then form, which eventually drop off. Following sexual contact, the rash can also be found in the genitals and around the anus and may not spread elsewhere. Not everyone will experience all the symptoms of mpox. Rash in the anogenital area, or complications of the rash such as rectal pain, may be the main symptom. Some people may have only a small number of lesions.

An individual is contagious until all the scabs have fallen off and there is intact skin underneath. The scabs may also contain infectious virus material.

For images of individual lesions refer to Interim guidance for the public health management of cases and contacts of mpox in Ireland-Ch.1, section 1.8 file:///Q:/Nursing/Guidance/MPOX/MpoxCTCh1.pdf

Mpox is generally treated with supportive care, such as pain relief. Antivirals may be needed in patients with more severe disease or antibiotic therapy to treat infected lesions.

Vaccination before exposure is recommended for the best protection, however vaccination can be administered either before or after a person is exposed to the virus,. For further information on vaccination refer to the National Immunisation Advisory Committee (NIAC) guidelines https://www.rcpi.ie/Healthcare-Leadership/NIAC/Immunisation-Guidelines-for-Ireland

Infection control, personal protection and prevention

Person-to-person transmission of mpox can occur through contact with lesions and scabs, or by touching virus-contaminated materials, such as items which have been in contact with the lesions such as bedding and clothing. Transmission can also occur through droplet transmission, for example respiratory droplets or short-range aerosols from prolonged close contact

For individuals with infection who have evidence of oropharyngeal lesions, lower respiratory tract involvement or severe systemic illness requiring hospitalisation, the possibility of airborne transmission cannot be excluded.

For information and links to other relevant mpox guidance and resources refer to: https://www.hpsc.ie/a-z/zoonotic/monkeypox/

Management of suspected, probable and confirmed cases of Clade II infection presenting to an acute healthcare setting

Based on experience to date, most patients will not require management in the acute healthcare setting and can be managed safely in the community, refer to the following, as relevant: Refer to:

Interim Guidance for the Public Health Management of Cases and Contacts of mpox – Chapter 2 (Clade I Cases and their Contacts) Chapters 1-3 as follows:

- Interim Guidance for the Public Health Management of Cases and Contacts of mpox Chapter 1 (Introduction)
- Interim Guidance for the Public Health Management of Cases and Contacts of mpox Chapter 2 (Clade I Cases and their Contacts)
- Interim Guidance for the Public Health Management of Cases and Contacts of mpox Chapter 3 (Clade II Cases and their Contacts)
- Interim Public Health Risk Assessment for Humanitarian Aid Worker returning from MPXV Clade I Areas

Refer to the specific Chapters, as relevant.

All healthcare workers must be familiar with the principles of standard infection prevention and control precautions which should be used with all patients at all times and transmission based precautions, as appropriate for preventing the spread of infection in healthcare settings.

A point of care risk assessment (PCRA) should be conducted to determine the likelihood of onward transmission of the virus will determine which are the most important elements such as - hand hygiene, appropriate choice and use of PPE, and appropriate patient placement. Refer to the following links for resources on point of care risk assessment (PCRA) in the posters section of the HPSC website:

https://www.hpsc.ie/a-

z/microbiologyantimicrobialresistance/infectioncontrolandhai/posters/PCRAResistPoster.pdf

and

https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/resources/general/how-to-use-a-point-of-care-risk-assessment-pcra-for-infection-prevention-and-control-copy.pdf

Details on assessment and testing pathway for use in acute settings can be found here: https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/ under Assessment and testing pathways

Details on case definitions for probable and/or confirmed cases of mpox can be found here: https://www.hpsc.ie/a-z/zoonotic/monkeypox/casedefinition/

Conducting a point of care risk assessment (PCRA) is an ongoing process during care of the person as this will help decide on patient placement, extent of disease and appropriate initial PPE.

On suspicion that a patient may have MPOX (clade II) infection, they should be immediately placed in a single room, ideally in a negative pressure isolation room (if available). If one is not available, the person should be isolated in a single room with en-suite bathroom facilities.

Initial management, informed by the initial PCRA, should include contact, droplet, and airborne precautions.

NB: Airborne precautions should be implemented as a precautionary measure for the following reasons:

- until varicella has been out ruled
- the extent of the rash and the lesions has been determined
- It has been determined that the patient does not have any upper/lower respiratory tract symptoms.

NOTE: some patients may present with obvious symptoms and lesions or may present with symptoms such as proctitis and no cutaneous lesions, indicating a lower risk of onward spread, therefore a PCRA will support correct selection of PPE depending on the situation.

When carrying out the initial assessment of a patient suspected to have Mpox infection a **fluid-resistant surgical face mask (Type 11R)** may be considered adequate if:

1(A.) a differential diagnosis of Varicella has been out-ruled (at initial assessment/ triage stage).

To determine this, ask the patient the following questions:

- Have you ever had chicken pox? If the patient cannot remember, ask if they can recall whether their siblings ever got chicken pox
- Have you ever been vaccinated against chicken pox?
- Have you recently been in contact with anybody with chickenpox?
- Do you have a rash? If yes, where exactly is the rash and can you describe what it looks like?

and

- (B.) the patient has lesions, but has no oropharyngeal or respiratory symptoms,
- (C.) there are no activities occurring in the patient area that could cause dispersal of skin squames (for example during bed making), and
- (D.) the HCW does not have any direct physical contact with the patient and/ or their immediate surroundings.
- 2. If a patient has respiratory symptoms and/ or oropharyngeal lesions and/ or a diagnosis of varicella has not been out-ruled a respirator mask (FFP2/3) and eye protection should be worn following a point of care risk assessment.
- 3. Eye protection (goggles or visor) is only necessary if there is a risk of splash to the HCWs eyes/ nose or mouth, for example where sampling involves de-roofing of lesions, or if a patient has oropharyngeal lesions or respiratory symptoms and the HCW is in close proximity to the patient i.e. within 1m.
- 4. Disposable nitrile gloves should be worn when a HCW anticipates any direct contact with non-intact skin, a rash, skin lesions, mucous membranes, body fluids, contaminated surfaces or equipment and with used bed linen/ patient clothing.
- 5. A plastic apron is required if a HCW's skin or clothing is likely to come in direct contact with the patient's skin or the patient's immediate surroundings. A gown is not usually required unless extensive contact with the patient's skin or their immediate surroundings is anticipated and/ or there is gross environmental contamination (for example if a patient is actively bleeding etc.)

Ambulatory care

For possible, probable or confirmed cases attending ambulatory healthcare (e.g. outpatients, emergency departments, urgent care centres, general practice, STI clinics), patients should be placed in a single room for assessment. A local pathway for mpox assessment and management separate to other patient pathways should be in place. The patient should be asked to wear a fluid resistant surgical mask if tolerated, especially in the pre-assessment phase.

Patients who present to ambulatory care areas and who are identified as contacts should be managed as per the definitions in the relevant guidance: which can be found here: https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/ in the section under Assessment and testing pathways

And refer to the individual chapters (1-3 and humanitarian aid worker) in the section on the Management of Cases and Contacts.

Confirmed case(s) who do not require hospitalisation for medical indications may be isolated in the household setting and other non-healthcare settings using appropriate infection, prevention and control precautions. Prevention of transmission of infection by respiratory and contact routes is also required in the household setting. If risk assessment allows for home isolation, general advice for infected people who are self-isolating at home is available at: https://www.hpsc.ie/a-

z/zoonotic/monkeypox/informationforpeoplewithconfirmedsuspectedmpox/

This includes general advice on self-isolation, cleaning, disinfection and waste disposal, avoiding close contact with others, pets, ending self-isolation, resumption of sexual activity and what to do if medical advice is required.

If a case is well enough to be isolated outside hospital, but circumstances at home do not allow this, referral can be made to a community isolation facility. For information on contact details and referral form please refer to the following:

https://www.hse.ie/eng/services/list/5/publichealth/isolation-facility/

Environmental hygiene in ambulatory care settings

Spread of mpox by fomites is a recognised transmission route, so environmental decontamination with appropriate cleaning and disinfection agents must be a priority. The risk of environmental contamination increases with the increasing development and spread of skin lesions.

Cleaning and disinfection: – In a room where a suspected or confirmed mpox case was examined, disposable covers of the physical examination bed should be carefully discarded avoiding shaking. The examination bed and any other room furniture that may have been contaminated with material from the rash should be carefully wiped with detergent followed by a disinfectant or a combined detergent disinfectant solution. Disinfectants should be prepared and used according to the manufacturer's instructions. Vacuuming or dry sweeping should be avoided; damp cleaning is recommended. Single-use disposable cleaning equipment (i.e. disposable paper towels, detergent wipes disposable cleaning cloths) is recommended.

Further details on cleaning and disinfection refer to "NCEC National Clinical Guideline No. 30 Infection Prevention and Control". http://health.gov.ie/national-patient-safety-office/ncec/

Refer to the following sections:

Volume 2, Section 4: Appendices, No. 7.1 Recommend routine cleaning frequencies page 238 and Table 40 Minimum cleaning frequency page 238,

Volume 1, Table 9 Cleaning requirements for routine environmental cleaning page 57

Volume 1, Figure 4 Processes for routine cleaning and product choice page 61

Volume 1, Section 3, No. 3.2.2 Contact precautions, Recommendation 13: page 94, Single use or patient dedicated equipment.

Management of suspected, probable / confirmed clade II infection (mpox) hospitalised inpatients

Refer to the relevant guidance available on the following link: https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/

Conduct a point of care risk assessment to support correct selection of personal protective equipment (PPE) as outlined above.

Patient placement

Transfer patient to a single room with negative pressure ventilation (if available), if one is not available then, they should be isolated in a single room with en-suite bathroom facilities. Continue isolation while awaiting test results.

Please note: Airborne precautions may be stood down following the results of the point of care risk assessment if: the responses to points 1 (A-C) as outlined above are negative; however, any such decision to change the level of IPC precautions must only be undertaken by the local IPC team in conjunction with the clinical team.

If airborne precautions are no longer necessary, healthcare workers can use a fluid resistant surgical mask (type IIR) or continue wearing a FFP2/3 mask.

For detailed advice on PPE, donning and doffing procedures and transmission-based precautions refer to the relevant sections in the National Standards for Infection and Prevention Control (IPC) 2023.

Additional advice on the use of PPE is available on the following link: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/ppe/Current%20recommendations%20for%20the%20use%20of%20PPE.pdf

The sequence of putting on PPE is illustrated on the link below:

https://www.hpsc.ie/az/microbiologyantimicrobialresistance/infectioncontrolandhai/posters/HS E%20West%20Putting %20On%20PPE%20A4%20Poster%20ver%202%20PROOF.pdf

The sequence of removing PPE is illustrated on the link below:

https://www.hpsc.ie/az/microbiologyantimicrobialresistance/infectioncontrolandhai/posters/HS E%20West%20Taking%20Off%20PPE%20A4%20Poster%20ver%202%20PROOF.pdf

Further AMRIC training resources including PPE can be accessed via the AMRIC Hub at https://www.hseland.ie

Environmental Hygiene in an Acute inpatient setting

Cleaning and disinfection: a full terminal clean of inpatient rooms is required when a patient is discharged or transferred and the room is vacated, using a detergent followed by a disinfectant or a combined detergent disinfectant solution. Disinfectants should be prepared and used according to the manufacturer's instructions. Vacuuming or dry sweeping should be avoided, damp cleaning is recommended. Single-use disposable cleaning equipment (e.g. disposable towels/ cloths) is recommended.

Linen

The risk of environmental contamination increases with the increasing development and spread of skin lesions. The biological material that is most potentially infectious consists of skin lesions, lesion fluid and detached scabs. Inhalation of lesion debris is thought to pose a risk to those changing/ handling contaminated bedding material. Bearing this in mind, the extent and severity of lesions as well as the immune competence of a patient with suspected Clade II mpox infection should be considered during the IPC PCRA.

The risk can be reduced by personnel wearing appropriate PPE when engaged in bed making including a fluid resistant surgical mask (Type IIR), gloves and apron. Items of clothing and/ or bed linen should not be shaken or handled in a manner that may disperse infectious particles. Potentially contaminated clothing or bed linen should be carefully placed in an alginate bag, then placed in a colour coded laundry bag and managed as fouled or infected laundry.

Waste

Waste from individuals suspected or confirmed to have Clade II) mpox virus is no longer treated as Category A infectious waste. The Health & Safety Authority approved the downgrading of mpox waste from Category A to Category B waste for transport. In accordance with HSE/DoHC Healthcare Risk Waste Management Segregation Packaging and Storage Guidelines for Healthcare Risk Waste, the waste should be assigned to UN3291, clinical waste, un-specified, n.o.s and transported in yellow wheeled bins for treatment in Ireland by steam sterilisation. The waste can be packaged as normal and transported and treated as per normal processes at the Stericycle facility.

NOTE: The approval by the Health & Safety Authority states that mpox waste cannot be exported/ sent outside of the State for treatment. As Stericycle send some waste to their facility in Northern Ireland for treatment it is therefore important to continue to notify Stericycle about a confirmed cases of mpox to ensure that this waste is transported to the appropriate facility where it can then determine where this customer's waste will be treated.

Management of patients in the non-acute healthcare setting

For guidance on the assessment pathway for clinical settings in the community, refer to relevant guidance available on https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/

Home isolation may be used for clinically well patients with possible, probable or confirmed cases as determined by the primary clinician. Patients should be advised to remain in self-isolation pending test result. The patient may drive home if feeling well enough to drive. Alternatively the patient may be driven home by a person who has already had significant exposure to the case. Patients and their household contacts should be advised to adhere to Public Health advice on reducing their contacts and preventing infection.

Further information is available on the following websites:

- HPSC: https://www.hpsc.ie/a-z/zoonotic/monkeypox/generalinformation/faqs/
- HSE: https://www2.hse.ie/conditions/mpox/
- WHO: https://www.who.int/news-room/fact-sheets/detail/mpox
- ECDC: https://www.ecdc.europa.eu/en/all-topics-z/monkeypox/factsheet-health-professionals
- CDC: https://www.cdc.gov/poxvirus/mpox/clinicians/index.html
- UKHSA: https://www.gov.uk/guidance/monkeypox

For possible, probable or confirmed cases who are ambulatory and well with limited lesions, covering those lesions and wearing a face covering/mask reduces the risk of onward transmission.

Individuals with possible, probable or confirmed Clade II should avoid close contact with others until all lesions have healed, and scabs dried off. This should include staying at home unless requiring medical assessment or care, or other urgent health and wellbeing issues.

Close household and non-household contacts of confirmed cases should be risk assessed and managed in line with the checklist for Public Health on management of mpox cases and their contacts: https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/

Cleaning to reduce risk from the environment in the community settings can be effectively achieved without using specialist services or equipment.

The risk of transmission in the home environment for possible, probable or confirmed cases can be reduced by the case performing regular domestic cleans and washing their own clothing and bed linen in a domestic washing machine.

Transport from the community to healthcare facilities for possible, probable or confirmed cases should be via private transport where possible. Where private transport is not available, public

transport can be used but busy periods should be avoided. Any lesions should be covered by cloth (for example scarves or bandages) and a face covering must be worn.

In the home and non -acute settings, healthcare workers, caregivers and relatives should avoid touching skin lesions and the bedding and other personal belongings of the affected person with bare hands; instead they should wear disposable gloves and practice strict hand hygiene.

Other residential settings

Within non-domestic residential settings (for example adult social care, prisons, homeless shelters, refuges), community isolation facilities, individuals who are clinically well should be managed in a single room with separate toilet facilities where possible.

In domestic and non-domestic settings where healthcare is being provided, waste generated is classified as healthcare risk waste and should be managed as Category B Infectious waste.

Where possible, pregnant women and immunocompromised/suppressed individuals should not assess or clinically care for individuals with suspected or confirmed cases. Guidance is available on the following link: https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/

Close contacts of confirmed cases in these settings should be assessed for vaccine, following the contact recommendations.

Management of contacts

Contacts should be managed as per the definitions in links for individual chapters contained in HPSC website: https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/ in the section on the Management of Cases and Contacts.

Further information

- https://www.hpsc.ie/a-z/zoonotic/monkeypox/guidance/
- Notifiable disease reporting arrangements are in accordance with Public Health guidance https://www.hpsc.ie/notifiablediseases/
- https://www.gov.uk/guidance/monkeypox
- https://www.cdc.gov/mpox/?CDC_AAref_Val=https://www.cdc.gov/poxvirus/mpox/about
- https://www.ecdc.europa.eu/en/all-topics-z/monkeypox/factsheet-health-professionals
- http://www.who.int/mediacentre/factsheets/fs161/en/
- https://www.who.int/docs/default-source/documents/emergencies/outbreak-toolkit/monkeypox-toolbox-20112019.pdf?sfvrsn=c849bd8b_2
- https://openwho.org/courses/monkeypox-introduction

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