Public Health Wales Briefing: Outbreak of Clade I Mpox in the African Region

Adapted from UKHSA Briefing Note 2024/033

Date of Briefing: 15-Aug-24

Intended audience:

- *Health board - Medical Directors, Executive Nurse Directors, Executive Directors of Public Health, Executive Directors of Therapies and Healthcare Science*
- *[For cascade to relevant local services (e.g. Emergency Medicine, General Medicine, Acute Medicine, Infectious diseases, Microbiology, Virology, Genitourinary Medicine) through health board procedures]*
- *Microbiologists and infectious disease specialists (Public Health Wales and other)*
- *PHW Health Protection Divisional Teams*
- *Senior Nurses in Infection Prevention & Control*
- *Sexual health services*
- *Welsh Ambulance Service Trust*
- *Welsh Government (Health protection, Chief Medical Officer, Chief Nursing Officer*)

The above recipients are requested to cascade this briefing to their wider teams for information and awareness.

Summary:

- 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.
- Clade I Mpox virus (MPXV) has historically only been reported in five countries in Central Africa. There is now increasing transmission of Clade I Mpox in the Democratic Republic of Congo (DRC), and cases are also being reported from other surrounding countries in Central and East Africa.
- The countries reporting laboratory-confirmed Clade I Mpox (historic or current) include: the DRC, Republic of Congo, Central African Republic, Burundi, Rwanda, Uganda, Kenya, Cameroon and Gabon.
- Countries where there may be a risk of Clade I Mpox exposure (based on sharing a border with the DRC) currently include: Angola, South Sudan, Tanzania, and Zambia.
- Given the rapid spread of Clade I in the African region, please check the UKHSA Mpox pages regularly for any updates to the countries included in the list above.
- There is evidence of sustained sexual transmission of Clade I MPXV in the DRC. Sexual history should not be used to infer whether an Mpox case is likely to be Clade I or II.

Clinicians are asked to:

1. Be alert to the possibility of Clade I Mpox in all patients with suspected Mpox if there is a link to the specified countries in the African region (as listed above).
2. Have a low threshold for testing for Mpox in patients with clinically compatible presentations with a travel history irrespective of sexual history.

3. Isolate patients meeting the following criteria as a high consequence infectious disease and contact local Microbiology/Infection Services to discuss urgent testing and typing:

   Confirmed or clinically suspected Mpox cases but Clade not yet known and:
   - there is a travel history to the DRC or specified countries where there may be a risk of Clade I exposure, or a link to a suspected case from those countries (listed above), within 21 days of symptom onset and/or
   - there is an epidemiological link to a case of Clade I Mpox within 21 days of symptom onset

4. Discuss any patient with suspected Mpox and severe or disseminated disease with your local Microbiologist, even if no travel history is identified.
5. Notify the PHW Health Protection Team (**0300 003 0032**) urgently by telephone on suspicion of Clade I Mpox.

All confirmed Clade I Mpox cases will be managed as HCID through the specialist HCID network, using current guidance pending further updates.

Laboratories are requested to send all Mpox positive samples tested locally to the Rare and Imported Pathogens Laboratory (**RIPL)** for Clade differentiating tests **regardless of whether Clade I is suspected**. PHW will contact hospitals for samples from Mpox cases where Clade typing samples have not been sent.

1. Background and Rationale

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. Infection with Clade I MPVX has been reported to cause more severe Mpox disease with a higher case fatality rate in known cases than Mpox (Clade II). Between 25 July and 5 August 2024, confirmed Clade I MPXV cases have been reported from Burundi, Kenya, Rwanda and Uganda for the first time, which has expanded the geographical footprint of Clade I MPXV in the African Region. Clade II cases have been reported from Benin, Cameroon, Cote D'Ivoire, Ghana, Liberia, Nigeria and South Africa in 2024.

In 2023, the DRC reported the highest annual number of Clade I MPXV cases, with a geographical expansion of the outbreak and the first reports of sexual transmission of Clade I MPXV. So far in 2024, the suspected case numbers being reported are higher than in the equivalent 2023 period. In South Kivu province, in the east of the DRC, sexual transmission of Clade I MPXV has been reported, including infection of female sex workers.

Clade I MPXV remains a high consequence infectious disease (HCID) in the UK. An Mpox variant, now known as Clade Ib, detected in South Kivu has been identified that may render currently available Clade-typing assays unreliable for Clade I MPXV. Additional testing pathways have been developed at the Rare and Imported Pathogens Laboratory (RIPL) as an interim measure and will be supplemented by whole genome sequencing where possible.

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. There is not currently evidence for any distinctive differences in clinical presentation between the clades. The operational case definition has been updated following the recent changes in Mpox epidemiology.

Operational case definition
The following patients should be managed as 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 and:
    - there is a travel history to the DRC or specified countries where there may be a risk of Clade I exposure, or a link to a suspected case from those countries (listed below), within 21 days of symptom onset and/or
    - there is an epidemiological link to a case of Clade I Mpox within 21 days of symptom onset.

The countries identified on this list are those where Clade I cases have been reported, as well as countries bordering those with ongoing Clade I transmission. They include the DRC, Republic of Congo, Central African Republic, Burundi, Rwanda, Uganda, Kenya, Cameroon, Gabon, Angola, South Sudan, Tanzania, and Zambia. This case definition and country list is available here. Given the rapid spread of Clade I in the African region, please check the UKHSA Mpox pages regularly for any updates to the countries included.
Please see appendix for a WHO map of regional situation.

The following patients should be managed using standard Mpox precautions (NIPCM), and do not require HCID precautions:

- confirmed as Clade II MPXV, or
- confirmed or clinically suspected Mpox but Clade not known, and all of the following conditions apply:
    - there is no history of travel to the DRC or specified surrounding countries within 21 days of symptom onset
    - there is no link to a suspected case from the DRC or specified surrounding countries within 21 days of symptom onset

When assessing a patient for suspected Mpox, clinicians should assess the travel and contact history as above. All cases meeting the operational definition of an HCID should be discussed with local Microbiology/Infection Services. Cases where the clade is unknown, but who have a travel or contact history as above, should be discussed with local Microbiology/Infection Services as soon as possible to ensure appropriate testing and escalation.

2. Message and actions

Implications & Recommendations

PHW Health Protection Team

Notifications of suspected Clade I Mpox cases should be passed to the Duty or OOH Consultant without delay. Suspected Mpox cases who may meet the operational definition of a HCID should be discussed with the local Microbiology/Infection Service and Imported Fever Service. The epidemiological situation will remain under close review and operational definitions may be updated as further information emerges.

Implications & Recommendations for Health Board Health Protection Teams
Local Health Protection Teams should be aware of the updated operational case definition.

Implications & Recommendations for Diagnostic laboratories
Samples sent directly to RIPL for Mpox testing will have Clade typing performed routinely if positive. Where testing for Mpox is performed locally, all positive samples **must be sent to** RIPL for Clade testing, regardless of whether there are potential links to Clade I or travel from the African region.
https://www.gov.uk/guidance/monkeypox-diagnostic-testing

An Mpox variant, now known as Clade Ib, detected in one region of the DRC has been identified that may render currently available clade-typing assays unreliable for Clade I MPXV. Additional testing pathways have been developed at the Rare and Imported Pathogens Laboratory (RIPL) as an interim measure and will be supplemented by whole genome sequencing where possible.

In either circumstance, if the operational case definition is met cases should be discussed with the IFS to expedite testing.

Implications & Recommendations for NHS including hospital clinicians, infectious diseases clinicians and sexual health services

Clinicians should be alert to the possibility of Clade I Mpox if there is a link to the specified countries in the African region, and those treating patients with suspected Mpox who may meet the operational definition of an HCID (as outlined above) should be discussed with the local Microbiology/Infection team and Infection Prevention & Control to ensure appropriate escalation. Patients with severe disease should also be discussed with the IFS.

Clinicians are asked to notify the Public Health Wales Health Protection Team by on suspicion of Clade I Mpox.

PHW Health Protection Team contact details:
Telephone: **0300 003 0032**
Email: aware@wales.nhs.uk
Note: emails should not be used to notify cases and are not monitored out of hours.

All samples from all individuals testing positive for Mpox (regardless of whether there are potential links to Clade I or travel from the African region) must be sent to the UKHSA RIPL for clade testing.
https://www.gov.uk/guidance/monkeypox-diagnostic-testing
Guidance on returning healthcare workers from the above list countries will be released soon.

If Clade I MPXV infection is suspected from initial case investigation, the local Infection Prevention and Control team should be contacted, and the patient should immediately be isolated in a negative-pressure, single room or a single room with dedicated medical equipment. Positive pressure single rooms should not be used. Suspected or confirmed Clade I Mpox cases should be managed as a HCID requiring transmission-

based precautions and enhanced personal protective equipment (PPE) as outlined in the National Infection Prevention and Control Manual.

Where suspected cases meeting the operational case definition present in primary care, General Practitioners should contact their local infection service for advice, including appropriate arrangements for transfer into secondary care and immediate precautions in the setting. The case should be notified to the PHW Health Protection Team on suspicion of infection as above.

If Clade I MPXV infection is confirmed, the HCID and public health responses should be activated through the usual procedures. If clade testing is initially indeterminate and further testing (including sequencing) is required, the treating clinicians should discuss the risk assessment with the IFS. If there are clinical and/or epidemiological risk factors, the case should be managed as an HCID pending further testing, and the HCIDN and public health response activated.

Implications and recommendations for Welsh Ambulance Service:
Welsh Ambulance Service are asked to ensure that clinicians are aware of the content of this briefing note.

Where transfer/ambulance services are requested for a patient with confirmed or suspected Mpox infection, WAST should check with the treating clinical team if the patient is confirmed/suspected as Clade I or Clade II Mpox. Where Clade I is confirmed or suspected, HCID protocols should be used including use of HART teams and appropriate PPE.

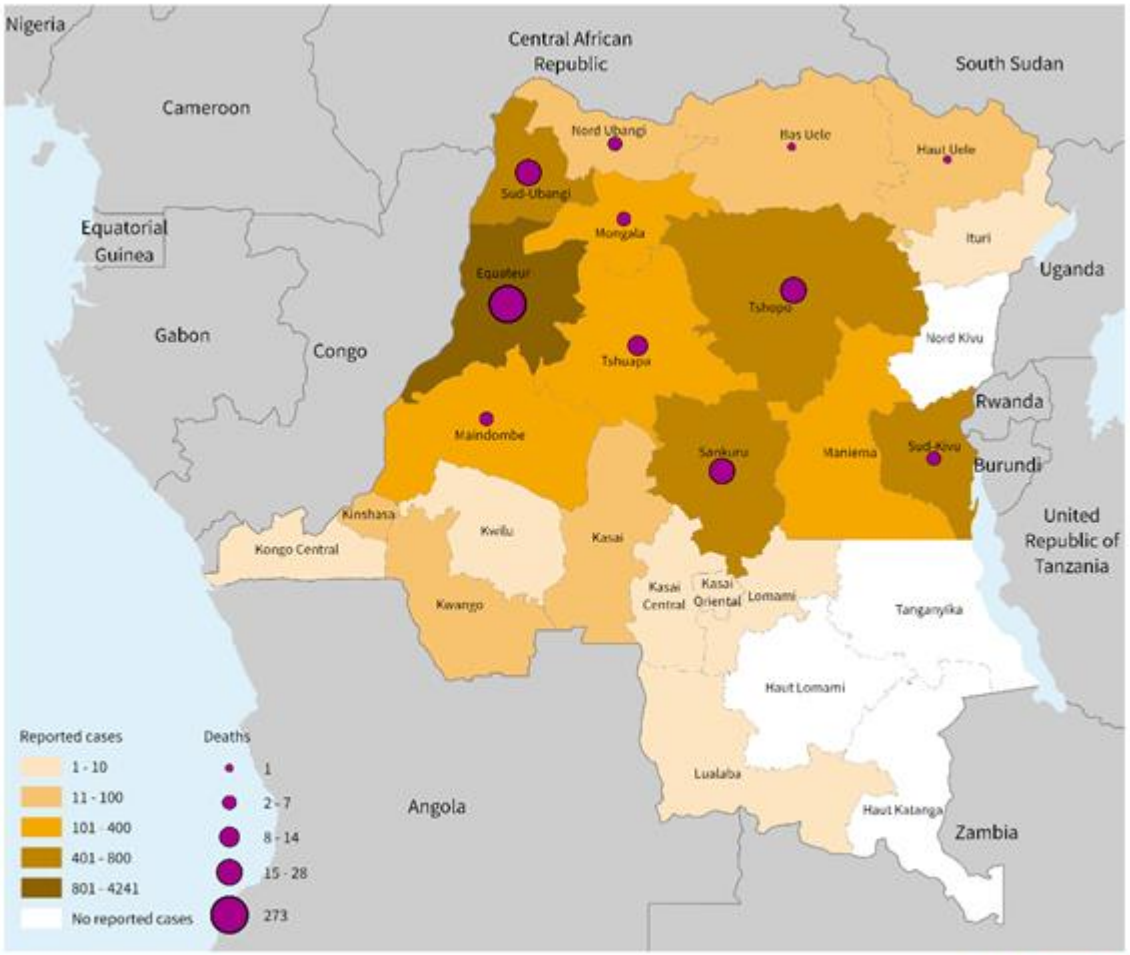
References/ Sources of information

1. https://www.gov.uk/guidance/operational-Mpox-monkeypox-hcid-case-definition
2. https://www.gov.uk/guidance/hcid-status-of-monkeypox
   https://www.gov.uk/guidance/monkeypox-diagnostic-testing
3. https://www.gov.uk/guidance/imported-fever-service-ifs
4. 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

Appendix I – Map of Region – from WHO update

https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON522

Figure 1. Geographic distribution of reported Mpox cases, the Democratic Republic of the Congo, 1 January to 26 May 2024 (n=7 851).



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: National mpox integrated disease surveillance data, Democratic Republic of the Congo, World Health Organization
Map Production: WHO Health Emergencies Programme
Map Date: 7 June 2024

World Health Organization