

**Development of optimized standard of
care guidelines for mpox:**
report of global meeting 10-12 June 2025

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Background

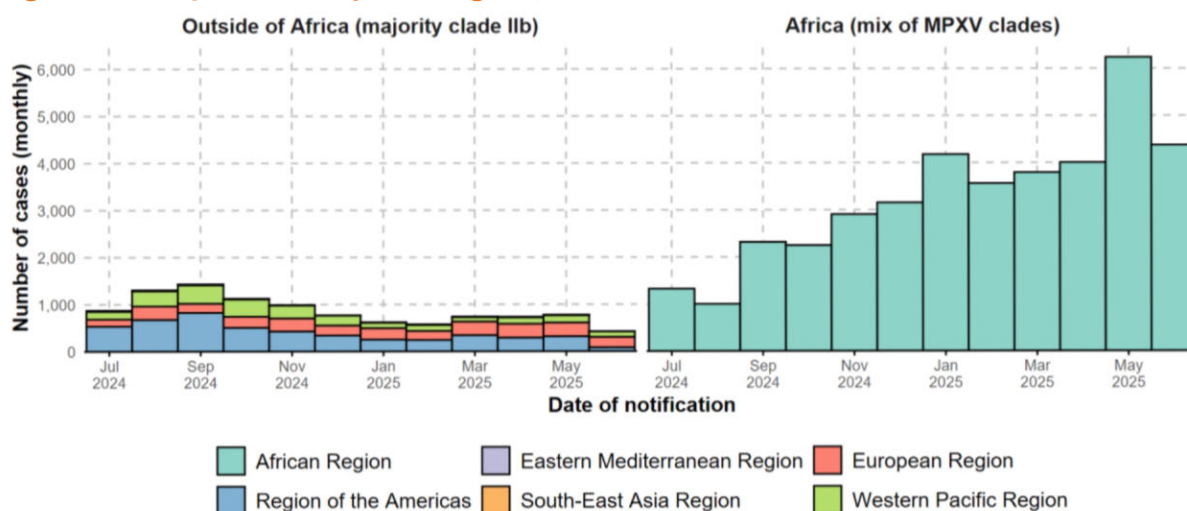
The evolving mpox epidemic, with more than 158,000 cases and 408 deaths reported since 2022, continues to pose clinical challenges. Previously endemic as clade 1a in central Africa, predominantly the Democratic Republic of the Congo, the recent global explosion of cases was driven initially by clade IIb and subsequently by clade Ib disease (see Figure 1).

There are profound differences in the capabilities and capacities of different health systems to care for patients with mpox. The impact of this is particularly profound in areas of high prevalence of comorbidities which worsen disease severity (such as HIV), amongst vulnerable populations, and where health systems are already stretched, including humanitarian settings.

As there is currently no effective antiviral treatment for mpox, optimizing the outcomes for patients relies completely on provision of high-quality, standardized and holistic clinical care. Best practice uses existing guidance on acute illness carefully contextualised for mpox.

Challenges include lack of adherence to protocols and guidelines, collection and uptake of data, community ownership, funding gaps and limited lab and clinical systems. WHO therefore convened a multidisciplinary meeting of researchers, technical experts, and frontline practitioners to align global evidence with local realities, and to generate evidence-informed guidance across broad clinical areas - critical care, pain management, ophthalmology, dermatology, mental health, nutrition, and paediatric and obstetric practice. The meeting, held in Africa, gave special consideration to the continent which has suffered the most cases, and has the highest burden of severe disease.

Fig 1. Global mpox trends by WHO region (30 June 2025)



Source: WHO

Meeting objectives

- 1** To create evidence-based, patient-centred guidance addressing the most urgent clinical questions and ensuring adaptability and relevance to the most highly-affected areas and vulnerable populations.
- 2** To foster communication and identify actions from diverse stakeholders including healthcare workers, policymakers, and affected communities which respond to operational challenges.
- 3** To identify evidence gaps and define research priorities that will support future improvements in guidelines and patient care.

Participants

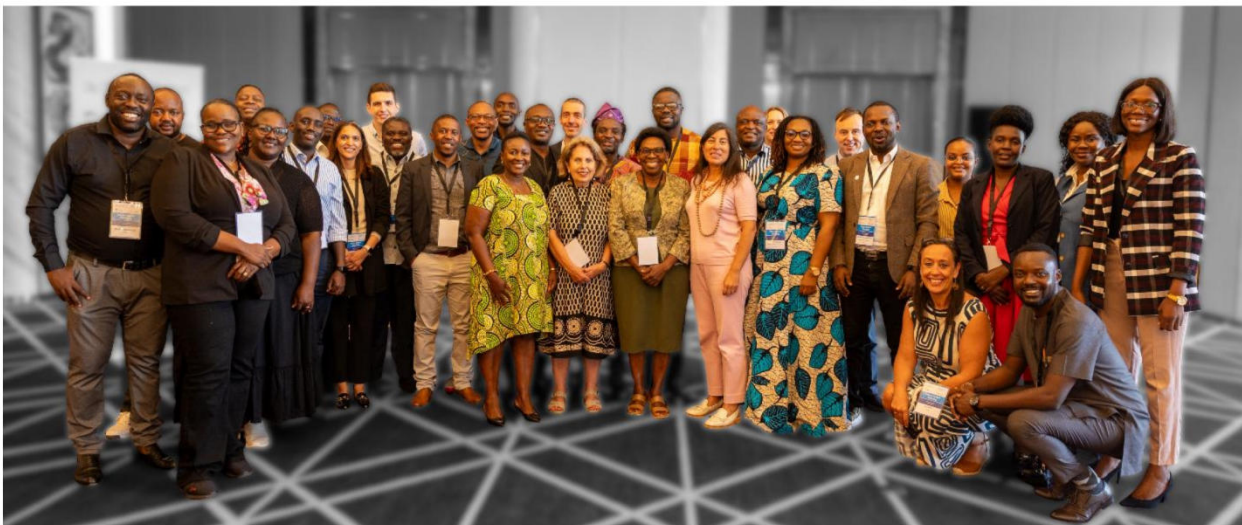


Photo credit: Natalie Ridgard

The WHO meeting from 10–12 June, brought together a Guideline Development Group including experts from Low-and Middle-Income Countries, non-governmental organizations and governmental organizations, United Nations agencies and academia.

Broader virtual participation was limited to observation role only.

Experts, panellists, and participants shared field experiences, research findings, and specific insights from multiple countries including Burundi, the Democratic Republic of the Congo, Ghana, Nigeria, Rwanda, Sierra Leone, Uganda, and Zambia.

Countries	15
Participants	45 in-person
	10 virtual

Treatment questions considered	63 medical principles
	52 WHO recommendations
	5 new questions

Priority questions, clear answers

Before the meeting, experts and the broader mpox community were asked in webinar and online polls to prioritize the most important unanswered questions for clinical care.

Table 1: Priority clinical questions in mpox

Skin	Should routine antibiotic therapy be used for extensive/severe skin lesions in the absence of clinically apparent infection?
	What cleaning solution should be used for intact skin?
	What cleaning solution should be used for broken skin?
	Should broken skin lesions be covered?
	Should skin abscesses be treated with antibiotics after drainage?
Eyes	How should eye pain and redness be treated?
Pain	What is the best way of treating pain?

Bringing the evidence to mpox management

Participants brought a broad clinical experience of mpox, but also recognized that foundational understanding from other disease could support care guidelines. Throughout, considerations of the applicability from non-mpox disease were carefully evaluated.



Lucille Blumberg
Chair of the Guideline Development Group

Photo credit: Natalie Ridgard

A novel methodological framework was used to systematically identify existing WHO guidance, and general medical principles which pertained. The participants balanced the need for more mpox research with the immediate availability of helpful indirect data in forming their recommendations.

Throughout the 3-day meeting, guideline discussions including sessions which captured frontline health worker experiences, and up-to-date information. Participants were presented with evidence summaries and guided by methodologists to make recommendations according to the structured GRADE methodology. This process included careful assessment of evidence certainty, consideration of patient values and preferences, balancing of risks and benefits of alternative approaches, and evaluation of the implications of resources, equity, acceptability, and feasibility

High level support from WHO, Africa CDC and funders

“Clinical guidelines should be evidence-informed and community and patient-centred.

We must ensure consistent delivery of quality clinical care to save lives, improve quality of life and maintain safety of patients and those caring for them.”

Dr Janet Diaz

Safe and Scalable Care

Photo credit: Natalie Ridgard



The meeting received high level support from WHO and Africa CDC, being opened by Yap Boum (Deputy Head, Africa CDC), Dick Chamla (WHO Regional Emergencies Hub Coordinator), representation from Abdourahmana Diallo, (WHO Representative to Kenya), and Michael Ryan (Executive Director, WHO Health Emergencies Programme). Janet Diaz (Safe and Scalable Care Unit, WHO, Geneva) outlined the objectives of the meeting.

An mpox treatment facility
Democratic Republic of the Congo

Photo credit: Dally Muamba



Learning points

What we can learn from randomized controlled trials

Jean Luc Biampata and Ian Crozier presented methods and results from PALM007

Reducing mortality from mpox in the Democratic Republic of the Congo was possible even when antiviral therapy was not effective.^{1,2} This provided a framework and scope for the guideline.



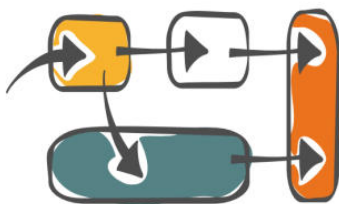
What we can learn from observational studies

Laurens Liesenborghs presented preliminary results from Mbote study

Mpox outcomes differ by viral clade, with early data suggesting Clade I (particularly in Central Africa) is more virulent than Clade II, especially in people with advanced HIV. Findings from the Mbote study highlight severe complications (immune reconstitution inflammatory syndrome, necrotizing lesions, superinfections, respiratory and neurological involvement) and reinforce the need for clade-specific surveillance and tailored management in immunocompromised patients.³

Bringing safe and quality care throughout the patient journey

Dally Muamba, Agnes Bangura Dora presented experience from Sierra Leone and the Democratic Republic of the Congo



General medical principles should be emphasized across the care pathway, from admission and structured evaluation, through escalation of care, to discharge while ensuring a safe care environment. Effective treatment, especially in high risk individuals requires comprehensive and repeated clinical assessment.

Currently, countries use primary care pathways which provide care either home-based (mild illness) and treatment centres (those requiring closer clinical monitoring and intervention); feasibility concerns about home-based care limit uptake, and lead to congestion of facilities – practical guidance is required.

Skin care

Kieron Leslie and Sebastine Oiwoh presented global overviews of dermatological theory and practice

Skin care is typified by very variable practice depending on resources and local preference. Multidisciplinary approaches and education can improve routine skin care and prevent complications. Antiseptic should be used judiciously to prevent the risk of irritation, and according to availability and feasibility. Wide differences occur between facilities, and between hospitals and home; each requires attention.



When broken skin becomes infected

Oshiozime Quincy Aigbonoga demonstrated the challenges of acute and reconstructive surgery in Nigeria

Cellulitis and abscesses are frequently encountered, but recognition of life-threatening necrotizing fasciitis and pyomyositis, and ensuring rapid linkage to definitive surgery, has saved lives.

Careful use of antibiotics is required to prevent multidrug resistance (WHO recommendations are in place [AWaRe]).⁴ Key long term needs require rehabilitation and physiotherapy to support recovery.



Discussion and chaired sessions provided opportunity for exchange and debate

Photo credit: Natalie Ridgard

Pain

Frederick Ntabana, Richard Kojan, and Sidonia Gomes Vieira reported experience from Rwanda, the Democratic Republic of the Congo, and Guinea-Bissau

Pain frequently relates to mucosa (oral and genital) disease, and rapid escalation from paracetamol can be required. Where required, opiates have been effectively used, although mostly limited to health facilities. Standardized assessment using existing tools can guide initial treatment and escalation (good practice includes visual analogue scores).

Treatment of underlying causes, including infection is key.



Hydration

Jean Luc Biampata and Hans-Joerg Lang brought Democratic Republic of the Congo and global pediatric experience of clinical fluid management into focus

Hydration assessment and management should be integrated with triage and initial ABCDE assessment and stabilisation, with particular close clinical oversight of fluid management in critical care.

Existing guidelines for other diseases need modification for patients; dehydration in mpox is most frequently the result of oral and pharyngeal pain, complicated by skin losses.

Nutrition

Najwa Al Dheeb demonstrated how national and international nutrition programmes can be leveraged in mpox

Specialist guidelines for nutrition exist, and should be used in combination with universal assessment of nutrition, and screening for severe acute malnutrition. Uncertainty persists around optimal fluid resuscitation in severe acute malnutrition.

Integration with existing services in acute nutritional support and during rehabilitation is paramount to success in mpox.

Mpox-related eye disease Steven Yeh and Jean-Claude Mwanza showed key field data and practice discussions, moderated by Patrick Kabwe



Red eye, eye pain, light sensitivity and tearing are alarming symptoms. Ophthalmological complications can be sight threatening, including keratoconjunctivitis, corneal ulcers, and corneal perforation. A severe lack of specialists has limited progress and patient care, but improving recognition by non-specialist practitioners with onward referral is a strong model. Strict adherence to infection prevention and control measures may prevent eye involvement; patients should be made aware. Specific antiviral treatment is of uncertain benefit, but an area of interest. Participants agreed that a therapeutic trial of trifluridine eye drops would have equipoise and answer an important clinical question.

Pregnancy and during the neonatal period

Imani Prince Musimwa, Chizaram Onyeaghala, Grace Ndeezi, and Francis Ng'ang'a presented five clinical cases demonstrating experience from obstetrics in the Democratic Republic of the Congo, neonatology in Nigeria, and pediatric practice in Uganda, and Kenya

High rates of pregnancy loss during mpox disease have been seen, but not comprehensively documented; this is an important research gap. Maternal to child transmission occurs; early recognition and good optimized supportive care using existing neonatal guidelines are likely to improve outcomes.



Clinical teams should be well-prepared to provide safe deliveries and essential newborn resuscitation.

Linkage of care services to improve recognition and early specialist input has been highly effective, particularly closing the recognition gap in antenatal services.

HIV

Olivier Segeral, Darlinda Jiba, Liliane Nkengurutse and Chizaram Onyeaghala described the global HIV/mpox overlap, and specific experience from Sierra Leone, Burundi and Nigeria

Showcased UNITY study findings illustrate severe mpox outcomes among patients with uncontrolled HIV infection.⁵ Case studies illustrated the impact of poor anti-retroviral adherence, including complications of extensive anogenital lesions, abscesses, necrosis, sepsis, encephalitis.

Usual testing and treatment pathways should integrate mpox patients, including HIV and sexual health programmes, supplemented by training of peer educators, and targeted communication for high-risk groups.

Early antiretroviral therapy-adherent patients recovered faster, and undiagnosed HIV is a distinct target to improve outcomes.

Early antiretroviral therapy is key to restoring immunity; clinicians are concerned by the potential for immune reconstitution inflammatory syndrome, which emphasizes the need for optimized supportive care during the early treatment period.

Complications with secondary bacterial infections are very common for patients with low CD4 cell count with possible progression to necrotizing fasciitis. The rapid initiation of empirical antibiotic treatment is a key factor. Attention to opportunistic infection is emphasized in existing HIV guidelines, and is critical.⁶

Sepsis

Patricia Kabuni, Paul Zulu, Hans-Joerg Lang shared field experience from the Democratic Republic of the Congo, Zambia, and other emergency responses



Case studies showed missed opportunities for intervening early in severe infection (sepsis). Standardized management saves lives, including early (carefully monitored) fluids, broad-spectrum antibiotics and source control, oxygen therapy, vasopressors, nutritional support.

Children are particularly vulnerable to complications (dehydration, severe anaemia, kidney injury), direct effects (toxic shock, seizures), or co-infections (malaria).

The diagnosis of organ dysfunction in the field relies on clinical signs. Laboratory or point-of-care testing must complement this, especially for kidney, liver, and haematological assessment. Variable access to advanced care (such as vasopressors) and complex referral pathways are limiting high-quality care, but underline the importance of critical care training in all settings.

Management of complications was discussed in the context of mpox, including pneumonia, anaemia, cardiac dysfunction and hypoglycaemia).

Participants highlighted WHO guidelines which are existing (BEC⁷, SARI toolkit⁸, IMCI⁹, hospital care handbook¹⁰, AWaRe⁴) and upcoming (pediatric and adult sepsis).

Mental health: stigma, anxiety and agitation

Joseph Mogga and Nadia Mandeng provided African region and Cameroon perspectives, moderated by Mehiyo Rose Carole Bohimbo

Stigma is a predominant feature of mpox disease, with massive implications for mental health in patients and staff caring for them; structured approaches are needed to assessment and tailored support. Severe mpox lesions, especially on the face and genitalia, particularly cause significant emotional and social distress.

Stigma was prioritized for the next guideline based on broad support and clinical need, focusing on strengthening both individual and community resilience. It was noted that some existing guidance (SPHERE handbook¹¹, IASC intervention pyramid¹², mhGAP guidelines²) provide frameworks for supporting people with anxiety, stress, or depression.



Malaria and co-infection
Ehiakhamen Odianosen and
Liliane Nkengurutse showed
case studies from Nigeria and
Burundi

High rates of co-morbidity in populations with high rates of mpox make interpretation of test results difficult, and structured clinical assessment of patients is required to direct appropriate treatment. Integration with international [WHO] and national guidelines on investigation and treatment, and ensuring risk communication covers malaria is important. Mpox facilities should ensure and promote preventative measures, including insecticide-treated nets.

Data

The lack of harmonized data collection within large epidemics has hindered the clinical response. Some areas of good practice include high quality cohort studies. The WHO Global Clinical Platform could encourage wider contributions to our collective knowledge.¹³

Conclusions

Field experience provides practical solutions

Participants collectively identified practical approaches and alternative strategies for Mpox treatment and clinical care, emphasizing the realities of resource-limited settings. Structured discussions around priority questions allowed the group to define the key components of optimized supportive care, ensuring future guidance is comprehensive, actionable, and patient-centred. Essential design and infection prevention and control principles provide a framework for safe care.

Not reinventing the wheel

Established care principles can be leveraged from pediatric, obstetric, critical care, infectious disease, and emergency care frameworks. This avoids duplication, accelerates guideline development, and ensures consistency across global contexts.

Global expert networks drive collaboration

The meeting reinforced a global network of clinicians, researchers, and implementing partners dedicated to improving mpox care. This meeting catalyzed knowledge exchange, technical assistance and coordination, and set a programme of continuous learning extending beyond Nairobi 2025.

Patient-centred guidance can be evidence-based and practical

Participants ensured that recommendations would be feasible, detailed, adaptable and sensitive to vulnerable populations (including people living with HIV, pregnant women, neonates, children, and those with specific medical needs and comorbidities).

Clinical research can be targeted to knowledge gaps

The meeting launched an mpox research collaborative: projects are underway to harmonise data structures, allow meta-analysis and focus in areas of collective concern. These include producing a new version of the WHO mpox skin atlas, and broad clinical characterization of patients with mpox and their outcomes, particularly in HIV and pregnancy.

Hybrid guideline meetings can be rich, efficient and responsive

Cross-regional dialogue with combination of frontline experience, research insights, and operational challenges can directly inform the GRADE process and evidence-to-decision framework. Participant feedback recommended modest adjustments such as extended sessions and more preparatory online meetings. The meeting underscored the importance of collaboration in co-developing guidance that is feasible, scalable, and responsive to high-burden settings. WHO thanks Africa CDC, the United Kingdom Foreign, Commonwealth & Development Office and the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH particularly for their foresight.

This meeting report will be followed by the publication of WHO guideline on optimized supportive care for mpox which aims to improve patient outcomes and support equitable care delivery worldwide.

References

1. Ali R, Alonga J, Biampata JL, et al. Tecovirimat for Clade I MPXV Infection in the Democratic Republic of Congo. *The New England journal of medicine* 2025; **392**(15): 1484-96.
doi:<https://www.doi.org/10.1056/NEJMoa2412439>
2. Organization WH. mhGAP training manuals for the mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: World Health Organization, 2017.
doi:<https://iris.who.int/bitstream/handle/10665/259161/WHO-MSD-MER-17.6-eng.pdf>
3. Brosius I, Vakaniaki EH, Mukari G, et al. Epidemiological and clinical features of mpox during the clade Ib outbreak in South Kivu, Democratic Republic of the Congo: a prospective cohort study. *The Lancet* 2025; **405**(10478): 547-59.
doi:[https://www.doi.org/10.1016/S0140-6736\(25\)00047-9](https://www.doi.org/10.1016/S0140-6736(25)00047-9)
4. World Health Organization. The 2019 WHO AWaRe classification of antibiotics for evaluation and monitoring of use. CC BY-NC-SA 3.0 IGO. Geneva: World Health Organization, 2019.
doi:<https://apps.who.int/iris/handle/10665/327957>
5. Telford E, Grinsztejn B, Olsen IC, et al. The international Unity study for antivirals against mpox is a blueprint for future epidemics. *Nature Medicine* 2023; **29**(8): 1894-5.
doi:<https://www.doi.org/10.1038/s41591-023-02393-6>
6. Organization WH. Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach: World Health Organization; 2021.
doi:<https://iris.who.int/bitstream/handle/10665/342899/9789240031593-eng.pdf>
7. Organization WH. Basic emergency care: approach to the acutely ill and injured. World Health Organization; 2018.
doi:<https://iris.who.int/bitstream/handle/10665/275635/9789241513081-eng.pdf>
8. World Health Organisation. Clinical care of severe acute respiratory infections – Tool kit. Geneva, Switzerland; 2022.
doi:<https://iris.who.int/bitstream/handle/10665/352851/WHO-2019-nCoV-SARI-toolkit-2022.1-eng.pdf>
9. Child WHODO, Health A. Handbook IMCI: integrated management of childhood illness: World Health Organization; 2005.
doi:<https://iris.who.int/bitstream/handle/10665/42939/9241546441.pdf>
10. Organization WH. Pocket book of hospital care for children: guidelines for the management of common childhood illnesses: World Health Organization; 2013.
doi:https://iris.who.int/bitstream/handle/10665/81170/9789241548373_eng.pdf?sequence=1
11. Sphere Association. The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response, fourth edition. Geneva, Switzerland: Sphere Association; 2018.
doi:<https://www.unicef.org/media/61556/file>
12. IASC Reference Group on Mental Health and Psychosocial Support in Emergency Settings. Technical Note: Linking disaster risk reduction (DRR) and mental health and psychosocial support (MHPSS), 2021.
doi:<https://interagencystandingcommittee.org/sites/default/files/migrated/2021-03/Technical%20Note%2C%20Linking%20Disaster%20Risk%20Reduction%20%28DRR%29%20and%20Mental%20Health%20and%20Psychosocial%20Support%20%28MHPSS%29-%20Practical%20Tools%2C%20Approaches%20and%20Case%20Studies.pdf>
13. World Health Organisation. WHO Global Clinical Platform website. 2025.
<https://www.who.int/tools/global-clinical-platform> (accessed 14/03/2025).

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