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# Clinical Management and Infection Prevention and Control for Monkeypox Emergency Rapid Response Guidance

# WHO Guideline development process

## Methods:

WHO convened Clinical network (24 May ) and consulted IPC experts ( 25 May) for up-to date clinical information; simultaneously a rapid review of literature was conducted.

WHO steering committee drafted recommendations and presented these to Guideline development group (GDG) on 27, 28, 30 May 2022 (7 hours).

During those meetings the following uncertainties and research priorities were identified.

# Uncertainties and developing the research agenda

## Transmission:

- Is there a pre-symptomatic or asymptomatic phase of disease?
- Better understand the routes for human-human transmission (i.e., aerosols, droplets, maternal to child, sexual).
- How viral dynamics and trajectories correlate with viral culture in the various body fluids and impact of this on transmission?
- How long is the infectious period? Is it different by patient subpopulations, or by disease severity or characterization?
- What is the potential for reverse zoonosis and spillback events?

# Uncertainties and developing the research agenda

## **Natural history of disease:**

- What is the clinical presentation, including disease severity in current outbreaks around the world:
- What are common symptoms?
- What other organ systems are affected in addition to the skin? What is pathophysiology (i.e. sepsis)?
- Is there variability by region, by clade?
- Is their variability in different subpopulations (i.e. neonates, children and young people, immunosuppressed, pregnant women, and older persons)?
- What are the risk factors associated with severe disease and mortality
- What is the histopathology of organs affected? (i.e. autopsy)

## **Co-infection:** such as with VZV and STI's, malaria (and other prevalent endemic infections).

- What is the prevalence of co-infections? What are the co-infections (i.e. VZV, STIs malaria, endemic pathogen)?
- Understand if co-infection impacts transmission, disease severity?

# Uncertainties and developing the research agenda

## Clinical management: optimized supportive care

- **Best supportive management** for skin care, rash management and nutritional support.
- **Best optimized care package** for complications such as ocular and central nervous system (CNS) complications, and others?

## Therapeutics

- **Efficacy and safety of therapeutics**, including in pregnant and breastfeeding women and children
- What are **important outcomes** to study? For example, reduce disease progression? Reduce time of infectious period?

## Long term outcomes for recovered patients,

- Are there mid- or long-term complications? ensure to understand this in subpopulations, such as mothers and babies, immunosuppressed.
- Is there a post-viral syndrome?
- What are care requirements after acute illness?

# Uncertainties and developing the research agenda

## Infection prevention and control

- **Survival of virus on different surfaces**, and the impact of evaporation, temperature, relative humidity, light
- Understanding **susceptibility of virus to disinfectants** and their virucidal properties (ie. active ingredients and concentrations, contact time )
- **Understand optimal ventilation** to reduce disease transmission
- Duration of transmission-based precautions to maintain in isolation (when can transmission-based precautions be lifted)?
- **Relevance of** wastewater monitoring of MPX trends within community?

## Occupational health

- What are the health worker **occupational exposure risk categories?** (i.e PPE breaches, needle sticks)
- **What burden of MPX is amongst health workers?**
- What is the efficacy of antivirals and vaccine for PEP?
- Survey health worker perceptions about vaccines

# Standardized Clinical Data Collection: WHO CRF

As the cluster of monkeypox cases continues to expand in non-endemic countries across WHO regions it is important that we understand the clinical features, prognostic factors, and outcomes in patients so we can better inform our clinical management guidelines and inform public health. There is a Case Investigation Form (CIF) in development which could be linked to Case Report Form (CRF).

The WHO Global Clinical Platform collects patient level anonymized clinical data and has been used to understand various emerging pathogens such as Ebola Virus Disease and COVID-19. As we work to understand more about the current cases, WHO have developed a CRF and invite member states to contribute data to this platform.

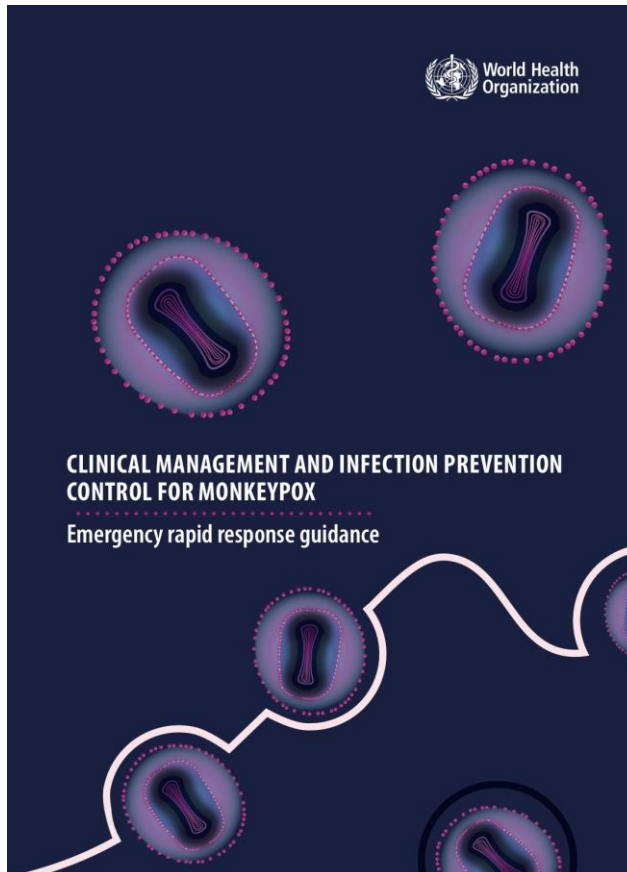
## The objectives of the platform are to:

- Describe the clinical characteristics of monkeypox
- Assess the variations in clinical characteristics of monkeypox
- Identify the association of clinical characteristics of monkeypox with symptoms
- Describe temporal trends in clinical characteristics of monkeypox

A screenshot of the 'Global Clinical Data Platform Monkeypox CASE REPORT FORM (CRF) Module 1 - page 1'. The form includes a header with the WHO logo and 'PARTICIPANT ID' field. The title is 'Global Clinical Data Platform Monkeypox CASE REPORT FORM (CRF)'. The 'INTRODUCTION' section explains the purpose of the CRF and lists three modules. The 'GENERAL GUIDANCE' section provides instructions for data entry. The 'MODULE 1. Complete on hospital admission (within 24 hrs from admission) or first visit to outpatients' section contains fields for 'Facility/clinic name', 'Country', 'Date of enrolment', and a '1a. DEMOGRAPHICS' section with checkboxes for sex, date of birth, age, health care worker, laboratory worker, race/ethnicity, history of smallpox vaccination, and pregnancy. At the bottom, there is a section for '1b. DATE OF ONSET AND ADMISSION VITAL SIGNS'.



# MPX Guidelines (publication pending)



- Screening, triage, and clinical assessment
- Management of mild or uncomplicated patients
- IPC considerations in the community/home setting
- Mental health care of patients
- Antivirals and other therapeutics
- Infection Prevention Control at health facilities
- Considerations for sexually active populations
- Caring for women during and after pregnancy
- Caring for infants and young children with Monkeypox
- Feeding of infants in mothers infected with Monkeypox
- Management of high-risk patients and those with complications or severe disease
- Caring for patients after acute infection
- Management of the deceased
- Management of exposed health workers
- Collection of standardized data collection and the WHO Clinical data platform
- Uncertainties and areas for research



# Acknowledgement: GDG members + WHO

Rodrigo Angerami

Jason Kindrachuk

Tochi Okwar

Laura Waters

Enrique Castro-Sanchez

Aaron Kofman

Diamantis Plachouras

Adesola Yinka

Nizam Damani

Fernanda Lessa

Anne Rimoin

Jake Dunning

Laurens Liesenborghs

Mitchell Schwaber

Candida Fernandes

Kalisvar Marimuthu

Elena Sendagorta

Tom Fletcher

Placide Mbala

Mark Sobsey

Carole Fry

Geeta Mehta

Shalini Sri Ranganathan

Lindsay Grayson

Marc Mendelson

Julian Tang

Lisa Hensley

Emmanuel Nakoune

Margarida Tavares

Thierry Kalonji

Pius Okong

Piere Van De Perre

Many thanks to  
WHO steering committee from WHO  
headquarters and regions for contributions

**WHO core group:**  
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Krutika Kuppalli, Victoria Willet  
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