



FEDERAL MINISTRY OF HEALTH  
NIGERIA CENTRE FOR DISEASE CONTROL

# **Monkeypox Outbreak Response**

## INTERIM NATIONAL GUIDELINES

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# Interim National Guidelines for Monkeypox Outbreak Response

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## About NCDC

Nigeria Centre for Disease Control (NCDC) is Nigeria's national public health institute with the mandate to provide a healthier and safer Nigeria through the prevention and control of diseases of public health importance. It is focused on protecting the health of Nigerians through evidence based prevention, integrated disease surveillance and response activities, using a one health approach, guided by research and led by a skilled workforce.

NCDC operations and activities are guided by five key goals:

- Accurately measure the burden of infectious diseases in Nigeria
- Ensure Nigeria is able to meet its international obligations as a member of the World Health Assembly
- Develop a Public Health laboratory service network to support the detection, prevention and response to critical infectious diseases
- Reduce the adverse impact of predictable and unpredicted public health emergencies
- Create an efficiently managed and evidence based organisation with a clear focus of health promotion and disease prevention.

NCDC operates through five directorates: Surveillance and Epidemiology, Public Health Laboratory Services, Emergency Preparedness and Response, Prevention and Programmes Coordination and Administration.

NCDC is the host for the ECOWAS Regional Centre for Disease Control (RCDC) and the regional hub for the Africa Centres for Disease Control (ACDC).



## Preface

This document provides information and recommendations for action, based on the current available knowledge around monkeypox. It is a first draft which will be updated in light of evolving evidence and additional information as they become available. We would like to acknowledge the support of the US Centers for Disease Control and Prevention for sharing their knowledge about the surveillance of monkeypox contained in their manual which was jointly produced with the colleagues from the Democratic Republic of Congo (DRC) and World Health Organization (WHO).



# Introduction

## **Background: Suspected Monkeypox Outbreak Alert and Advisory in Nigeria**

Monkeypox is a rare self-limiting viral zoonosis (a virus transmitted to humans from animals) with symptoms in humans similar to those seen in the past in smallpox patients, although less severe. Though smallpox was eradicated in 1980, monkeypox however occurs sporadically in some parts of Africa.

The monkeypox virus which belongs to *Orthopoxvirus* genus in the family *Poxviridae* was first isolated in 1958 at the State Serum Institute in Copenhagen, Denmark, during an investigation into a pox-like disease among colonies of monkeys kept for research. However, the major reservoir has been known to be rodents.<sup>1</sup>

The *Orthopoxvirus* genus also includes variola virus (the cause of smallpox), vaccinia virus (used in the smallpox vaccine), and cowpox virus<sup>2</sup>.

Human monkeypox on the other hand was first identified in humans in 1970 in the Democratic Republic of Congo (then known as Zaire) in a nine year old boy in a region where smallpox had been eliminated in 1968<sup>1</sup>. Since then, the majority of cases reported have been in rural, rainforest regions of the Congo Basin and western Africa, particularly in the Democratic Republic of Congo, where it is considered to be endemic<sup>3</sup>. Nigeria is one of the Western African countries that have reported monkey pox in the past – two recorded human cases in

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1 <http://www.who.int/mediacentre/factsheets/fs161/en/>

2 <https://www.cdc.gov/poxvirus/monkeypox/about.html>

3 <http://www.who.int/mediacentre/factsheets/fs161/en/>

1971 and one in 1978<sup>4</sup> . Other West African countries that have reported the disease include Ivory Coast, Liberia and Sierra Leone. The United States of America recorded a large outbreak (47 cases) in 2003, the first reported occurrence of the disease outside the African continent.

The monkeypox virus which is transmitted to people from various wild animals, is said to have limited secondary spread through human-to-human transmission with the case fatality rate reported to have varied widely between 1% and 10% for various outbreaks, and most deaths occurring in younger age groups<sup>5</sup> . There is no specific treatment or vaccine available for human monkeypox infections, but prior smallpox vaccination was found to be highly effective in preventing monkeypox as well.<sup>6</sup>

## **Transmission**

The virus can spread both from animal to human, and from human to human with transmission occurring when a person comes into contact with the virus from an infected animal, human, or materials contaminated with the virus. The virus enters the body through broken skin (even if not visible), the respiratory tract, or the mucous membranes (of the eyes, nose, or mouth).

Animal-to-human transmission may occur by the bite or scratch, bush meat preparation, or direct contact with the blood, body fluids or the skin or mucosal lesions of infected animals (e.g. monkeys, squirrels and rodents). The primary route of infection is thought to be contact with the infected animals or their bodily fluids. Eating inadequately cooked meat of infected animals is a possible risk factor<sup>7</sup> .

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4 <https://www.cdc.gov/poxvirus/monkeypox/about.html>

5 <http://www.who.int/mediacentre/factsheets/fs161/en/>

6 <http://www.who.int/mediacentre/factsheets/fs161/en/>

7 <http://www.who.int/mediacentre/factsheets/fs161/en/>



Human-to-human or secondary transmission is thought to occur primarily through large respiratory droplets. Respiratory droplets generally cannot travel more than a few feet, so prolonged face-to-face contact is required, thereby putting household members of active cases at greater risk of infection. Transmission can also occur by inoculation or via the placenta (congenital monkeypox)<sup>8</sup>. Other human-to-human methods of transmission include direct contact with body fluids or skin lesions of an infected person, and contact with objects recently contaminated by patient fluids or lesion material, such as clothing or linens.

During human monkeypox outbreaks, close contact with other patients is the most significant risk factor for monkeypox virus infection<sup>9</sup>.

## Signs and Symptoms

The incubation period (interval from infection to onset of symptoms) of monkeypox is usually from 6 to 16 days but can range from 5 to 21 days.

The infection can be divided into two periods:

- The invasion period (0-5 days): this is characterised by fever, intense headache, lymphadenopathy (swelling of lymph nodes), back pain, myalgia (muscle ache) and an intense asthenia (lack of energy);
- The skin eruption period (within 1-3 days after appearance of fever): this period is where the various stages of the rash appears, often beginning on the face and then spreading elsewhere on the body. The face (in 95% of cases), and palms of the hands and soles of the feet (75%) are most affected. Evolution of the rash from maculopapules (lesions with a flat bases) to vesicles (small fluid-filled

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<sup>8</sup> <http://www.who.int/mediacentre/factsheets/fs161/en/>

<sup>9</sup> <http://www.who.int/mediacentre/factsheets/fs161/en/>

blisters), then pustules (pus containing rash) followed by crusts (dried blisters), occurs in approximately 10 days. It might take three weeks before the complete disappearance of the crusts.

The number of the lesions varies from a few to several thousand, affecting oral mucous membranes (in 70% of cases), genitalia (30%), and conjunctivae (eyelid) (20%), as well as the cornea (eyeball).

Some patients develop severe lymphadenopathy (swollen lymph nodes) before the appearance of the rash, which is a distinctive feature of monkeypox compared to other similar diseases.

Monkeypox is usually a self-limiting disease with the symptoms lasting from 14 to 21 days. Severe cases occur more commonly among children, with most deaths occurring in younger age groups who are deemed to be more susceptible to the disease.

## **Diagnosis**

Though clinical recognition of monkeypox is the first step in diagnosis, the definitive diagnosis can however only be done in the laboratory where the virus can be identified by a number of different tests:

- Enzyme-linked immunosorbent assay (ELISA)
- Antigen detection tests
- Polymerase chain reaction (PCR) assay
- Virus isolation by cell culture

The swabs of lesions, fluid samples or crusts are most appropriate for laboratory

monkeypox tests<sup>10</sup>.

The differential diagnoses that must be considered include other rash illnesses e.g. smallpox, chickenpox, measles, bacterial skin infections, scabies, syphilis, and medication-associated allergies<sup>11</sup>.

## Prevention

Measures that can be taken to prevent infection with monkeypox virus include<sup>12,13</sup> :

- Avoiding direct contact with animals that could harbor the virus including sick or dead animals especially in areas where monkeypox occurs
- Avoiding contact with any material that has been in contact with a sick animal.
- Isolation of infected patients from others who could be at risk for infection.
- Hand washing with soap and water after contact with infected animals.
- Wearing gloves and protective equipment when taking care of ill people.
- Regular hand washing after caring for, or visiting sick people.
- Thoroughly cooking all animal products before eating
- Implementation of standard infection control precautions by health workers.
- Isolating potentially infected animals from other animals
- Immediate quarantine of any animals that might have come into contact with an infected animal, handling them with standard precautions and observing for monkeypox symptoms for 30 days.

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10 *Monkeypox Surveillance Manual (Translated into English July 21, 2017): Ministry of Health, DRC; Centers for Disease Control and Prevention, Atlanta, USA; National Institute for Biological Research, Kinshasa, DRC; School of Public Health, Kinshasa, DRC; University of Kinshasa, Kinshasa, DRC.*

11 <http://www.who.int/mediacentre/factsheets/fs161/en/>

12 <http://www.who.int/mediacentre/factsheets/fs161/en/>

13 <https://www.cdc.gov/poxvirus/monkeypox/prevention.html>

- Public health education that raises awareness of the risk factors and educates people about the measures they can take to reduce exposure to the virus.

## **Outbreak Control**

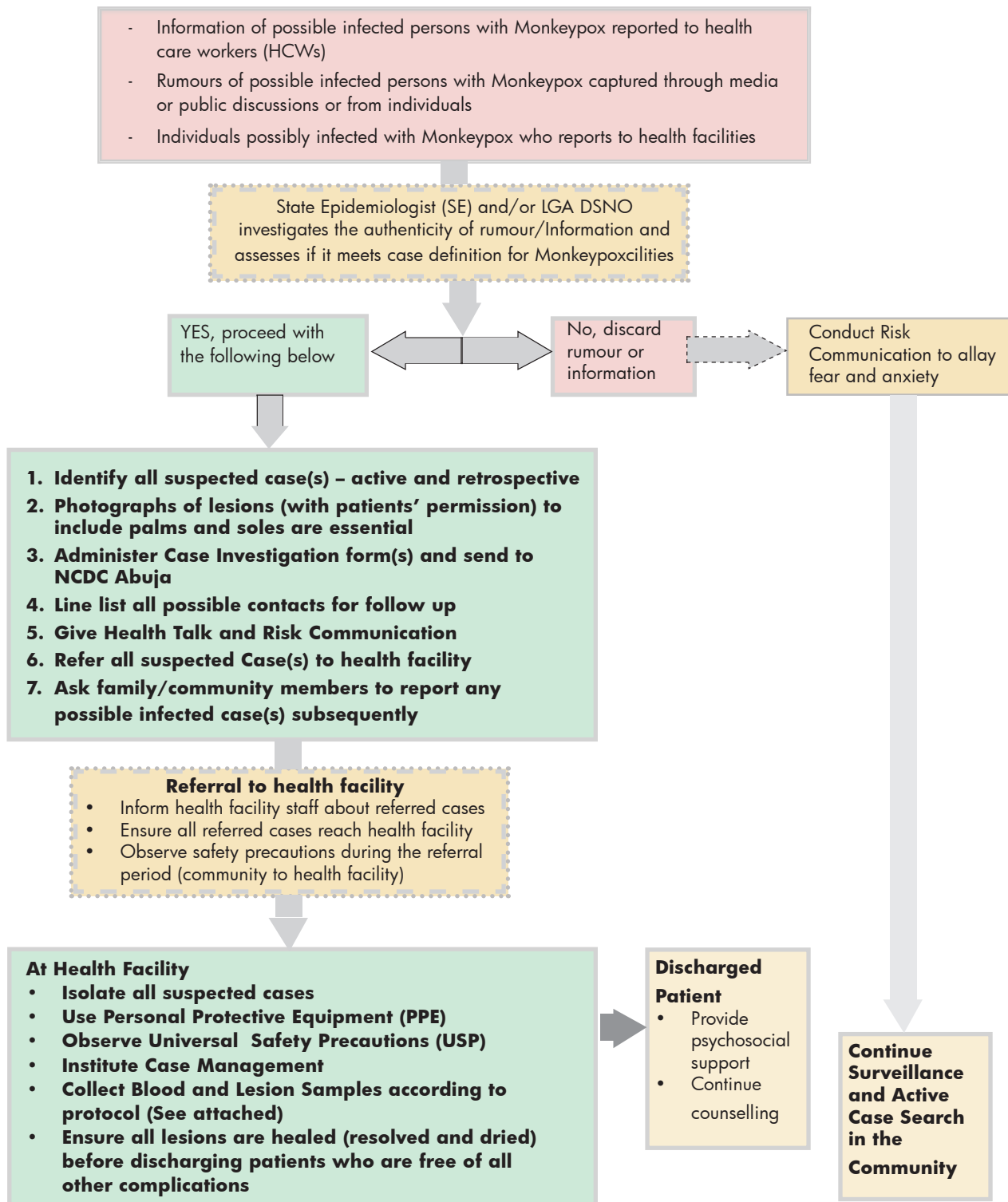
Surveillance measures and rapid identification of new cases are critical for outbreak control. Control measures include:

1. Intensified surveillance and active case search using case definitions
2. Prompt sample collection (swabs of lesions, fluid samples or crusts for active cases and serum for retrospective cases) for laboratory diagnosis and confirmation of cases
3. Isolation of suspected or confirmed cases
4. Strict adherence to standard precautions especially hand hygiene
5. Barrier nursing through use of Personal Protective Equipment (PPE) like gloves, face mask, gown, goggles etc
6. Risk Communication and Social Mobilisation of the community on preventive measures

## **Coordination of Response**

It is important for stakeholders at the Local Government Area and the State to ensure prompt coordination and structured response to outbreaks. This might involve activation of existing epidemic preparedness and response (EPR) committee or activation of an emergency operations centre (EOC) as necessary. Consider the activation of an EOC following a confirmed case of monkeypox.

# ALGORITHM FOR RESPONDING TO SUSPECTED MONKEYPOX



# 2

## Surveillance – Case Identification and Investigation

### **Detection of Suspected Cases**

Suspected monkeypox cases may be detected by health care workers in any health care facility using standard case definitions. Detected cases of suspected monkeypox should be reported immediately to the LGA Disease Surveillance and Notification Officers (DSNOs) or the State Epidemiologist or the NCDC. Case identification should be based on the case definitions below and reporting of suspected cases should be via the IDSR reporting flow.

### **Monkeypox Case Definitions**

**Suspected case of monkeypox:** Any person presenting with a history of sudden onset of fever, followed by a vesiculopustular rash occurring mostly on the face, palms and soles of feet.

**Confirmed Case:** Any suspected case with laboratory confirmation (Positive IgM Antibody, PCR or Virus isolation).

**Contact:** Any person who has no symptoms but who has been in physical contact with a suspected case or with body fluids of a case in the last three weeks (i.e. skin secretions, oral secretions, pre-mastication of food, urine, stools, vomiting, blood, sexual contact).

During suspected outbreaks, States are to intensify surveillance and actively engage in case search for early detection. All rumours should be investigated and recorded in a rumour log. A **case investigation form** (Refer to Annex A) must be completed for all suspected cases and cases should be line listed.

The following are to be carried out for every detected suspected case:

1. Clinical examination of the patient
2. Questioning of the patient about possible sources of infection and the presence of apparent diseases in the patient's community
3. Completion of a case investigation for each patient
  - The case investigation form must be completed for each patient who **meets the case definition**
  - Clinical Photographs showing the lesions should be taken **with permission** from the patient
4. Collection and transportation of samples as detailed in sample collection protocol as detailed below

### **Monitoring Contacts of Monkeypox Patients**

The contacts of animals or humans confirmed to have monkeypox or probable cases should be placed under symptom surveillance for 21 days after their last exposure. Symptoms of concern include fever, sore throat, cough, or skin rash. Contacts should monitor and record their temperature twice daily. In addition, they should maintain daily contact with the designated surveillance officer or health worker.

Contacts who develop symptoms of monkeypox (i.e., fever, muscle aches, headache) should be placed under rash surveillance for 7 days following fever onset. If no rash develops, contacts should continue to monitor for symptoms for an additional 14 days (21 days total symptom surveillance). If symptoms return or if rash develops the LGA/State team should be notified immediately.

Healthcare workers who have unprotected exposures (i.e., not wearing PPE) to patients with suspected monkeypox need not be excluded from duty, but should

undergo active surveillance for symptoms, including measurement of temperature at least twice daily for 21 days following the exposure  
Information should be documented in the contact monitoring form.



# 3 Laboratory

## Sample Collection and Packaging Protocol for Suspected Cases of Monkeypox

1. Observe adequate universal safety precautions (IPC).
  - Hand washing with soap and water before and after sample collection
  - Provide gloves, masks, gowns, goggles/face shield for use
2. Collect vesicular swabs or crusts and store in a dry, sterile tube (**do not use viral transport media**) and keep cold/ refrigerated. For vesicular swabs, liquid or exudate from vesicles or pustules should be collected on the swab, and this material is often visible on the swab itself. It may be necessary to unroof the lesion in order to collect the vesicular swab.
  - Collect with a swab
  - Lightly rub the bottom of the lesion with the swab. Visually confirm material is on the swab.
  - Place the swab in a dry, sterile tube
  - Collect at least two samples per patient
  - **Label the tube** (name, date and type of sampling) and neatly put everything in the box provided for shipping
  - Keep samples cold in a freezer or refrigerator.
  - Transfer to testing lab as soon as possible.
3. Collect 20mls of venous blood (...or as much as possible).

4. Dispense 10mls into new Plain Vacutainer bottle, allow to clot.
  - When the clotted sample has retracted, aliquot the serum into a new preferably Vacutainer bottle.
5. Dispense the remaining 10mls into two Vacutainer EDTA bottles and gently mix to avoid clotting.
6. **Label all bottles/sterile tubes** properly with patient's name, date and time of collection.
7. Line the inside of your vaccine carrier or whatever container you will transport with frozen ice pack.
8. If you have a **triple package**, use it, where you don't have, you can improvise with zip lock bag in this case use three bags.
9. Put the samples **well covered** into the first zip lock bag and seal properly,
10. Put the enclosed first zip lock with the samples into the second zip lock, seal properly and repeat for the third zip lock.
11. Wrap the zip lock with cotton wool and gauze before putting into the frozen iced packed vaccine carrier.
12. The essence is to create refrigerator's temperature and not freezer temperature.
13. Do not put the blood samples directly to the frozen ice pack to avoid hemolysis.
14. A copy of the **case reporting and laboratory forms** should be placed outside and NOT inside the vaccine carrier or whatever container that is used. **A case investigation form should be completed for each suspected case** (active and retrospective).

15. Send the pack to:

*Central Public Health Laboratory  
9 Murtala Mohammed Way  
Opp. Yaba Bus Stop (Beside Psychiatric Hospital)  
Lagos*

Contacts:

*Mr. Olajide Martins. Phone 07062330127  
Mr. Akpan. Phone 07033608240*

16. Inform Dr Sikiru Badaru (08031571667) or Dr Adesola Yinka-Ogunleye (08059409277)

**A few notes about laboratory diagnostics and information that is required:**

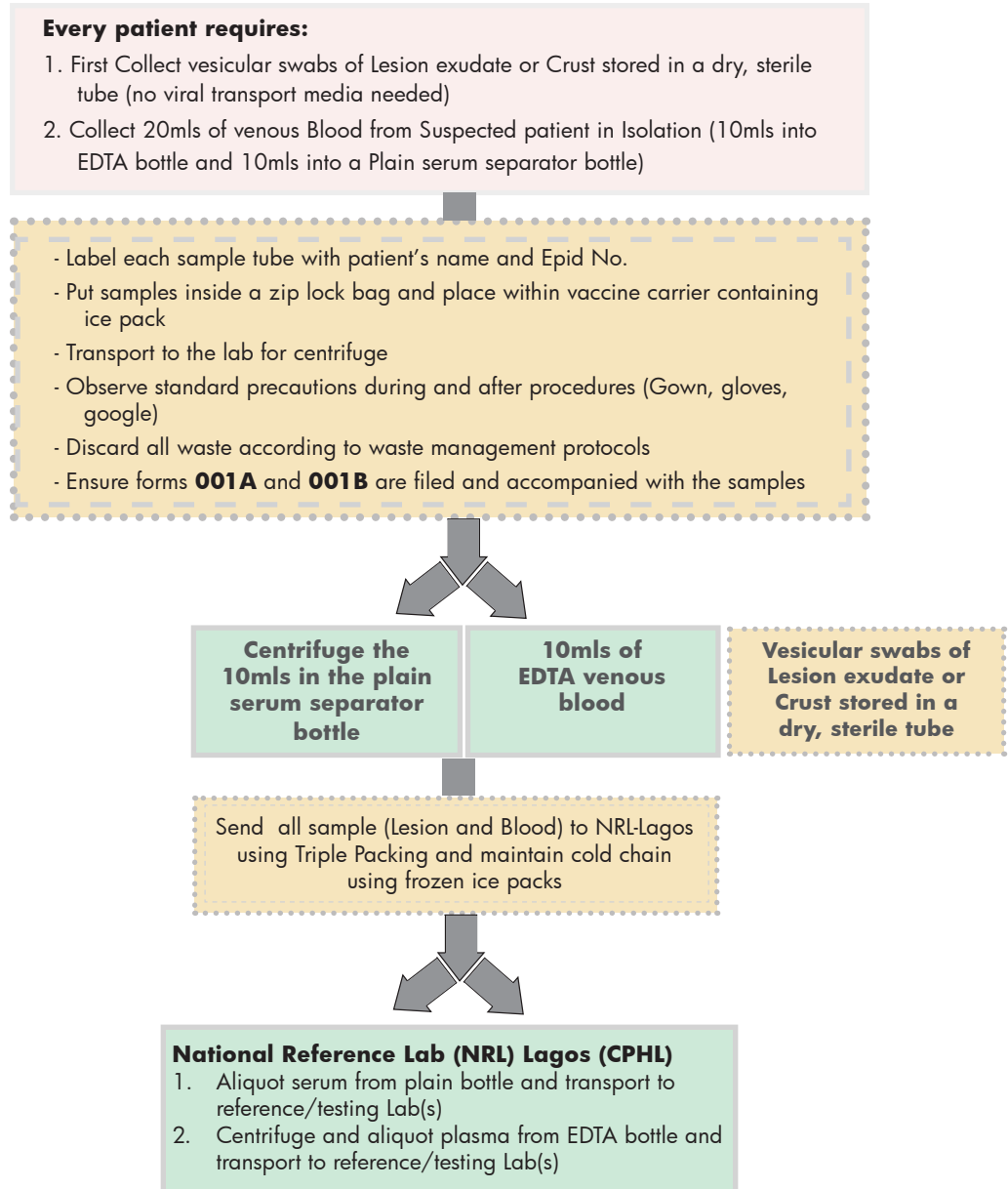
- **Optimal diagnostic specimens are from lesions of active cases** – vesicular swabs of lesion exudate or crusts stored in a dry, sterile tube (no viral transport media) and kept cold. These specimens can be kept cold and remain viable for months after collection.
- Blood can be used but is not optimal and often can be inconclusive with tests because viremia in blood exists for a limited window of time.
- Serum can be helpful but not definitive for active cases. For retrospective cases, serum is essential. It is critical that we know the:
  - o Approximate date of onset of fever,
  - o Date of onset of rash,

- Date of specimen collection,
- Current status of the individual (stage of rash), and
- Age.

**The above dates are important in order to interpret the results from serological testing.**

- For both active and retrospective cases, the **clinical and epidemiological information** contained in the case investigation form is **critical** for the interpretation of laboratory results and placement of cases into case definitions (suspect, probable, confirmed, etc).
- For active cases and retrospective cases with scars, **photographs (with patient permission) are essential**. Orthopoxviruses are often characteristic in appearance and photographs are used as a diagnostic tool.

## ALGORITHM FOR SAMPLE MANAGEMENT FOR SUSPECTED MONKEYPOX



# 4

# Infection Prevention and Control (IPC)

## **Infection Prevention and Control: Health Facility Setting**

A combination of standard, contact, and droplet precautions should be applied in all healthcare settings when a patient presents with fever and vesicular/pustular rash

### **Standard Precautions**

Health Care Workers (HCWS) working in facilities where suspected cases are handled should ensure they:

- (a) Use barrier protection to prevent skin and mucous membrane contact with blood or other bodily fluids
- (b) Wear gloves to prevent contact with blood, infectious materials or other potentially contaminated surfaces and items
- (c) Wear face protection if blood or bodily fluid droplets may be generated or splashed during a procedure
- (d) Wash hands and skin thoroughly under running water before and after a procedure and gloving
- (e) Do not recap needles and handle all sharps with caution
- (f) Drop all sharps in labelled, puncture-proof boxes
- (g) Report to a supervisor immediately should there be a puncture wound or exposure to infectious substances in the facility
- (h) Correctly contain and dispose of contaminated waste (e.g., dressings) in accordance with facility-specific guidelines for infectious waste or local

regulations pertaining to household waste

- (i) Take appropriate care when handling soiled laundry and other equipment (e.g., bedding, towels, personal clothing) to avoid contact with lesion material.
  - o Do not shake or handle soiled laundry materials or linens in a manner that may disperse infectious particles
  - o Clean, decontaminate and reprocess all used equipment appropriately

### **Isolation of Patients**

- (a) Suspected or confirmed cases with lesions should be isolated in a room or area separate from other patients
- (b) Precautions should be taken to minimize exposure to surrounding persons by restricting access to the isolation room except when absolutely necessary by HCWs
- (c) Isolated patients with extensive lesioned exudates should be covered gently with sheet or light gowns
- (d) Isolation should be continued until all or majority of the lesions are crusted
- (e) Following the discontinuation of isolation precautions;
  - o Affected individuals should avoid close contact with immunocompromised persons (e.g. HIV/AIDS patients, cancer patients, Diabetics etc.) until all crusts have fallen off
  - o The isolation room should be fully disinfected using appropriate decontaminating solutions (freshly prepared 0.5% Sodium Hypochlorite)

### **Personal Protective Equipment (PPE)**

- (a) Personal protective equipment should be donned before entering the patient's room and used for all patient contact.
- (b) All PPE should be disposed of prior to leaving the isolation room where the patient is admitted.
- (c) Optimal personal protective measures include:
  - o Use of disposable gown and gloves for patient contacts
  - o Use of N95 (or comparable) filtering disposable respirator especially for extended contact in the inpatient setting, where not available, a face mask should be worn when accessing the isolation room
- (d) Use of eye protection (e.g., face shields or goggles), as recommended under standard precautions, if medical procedures may lead to splashing or spraying of a patient's body fluids.

### **Infection Prevention and Control: Community Setting**

Patients who do not require hospitalisation for medical indications may be isolated at home using protective measures. The ability to implement isolation and infection control measures in a home setting is likely to vary depending on the following factors:

- The age of the patient (i.e. a child or adult)
- The presence of additional infected or uninfected persons or pets in the home
- The nature and extent of lesions in each case

The following principles should be considered and adopted to the extent possible in the home setting.



## Isolation of Patients

- Persons with extensive lesions that cannot be easily covered (excluding facial lesions), draining / weeping lesions, or respiratory symptoms (e.g., cough, sore throat, and runny nose) should be isolated in a room or area separate from other family members when possible.
- Persons with suspected/confirmed monkeypox should not leave the home except as required for follow-up medical care. They also should avoid contact with wild or domestic mammals if possible.
- Unexposed persons who do not have an essential need to be in the home should not visit.
- Household members who are not ill should limit contact with the person with monkeypox.
- Pets should be excluded from the ill person's environment.

## Use of Personal Protective Equipment

- Persons with monkeypox should wear a surgical mask, especially those who have respiratory symptoms (e.g., cough, shortness of breath, sore throat). If this is not feasible (e.g., a child with monkeypox), other household members should consider wearing a surgical mask when in the presence of the person with monkeypox.
- Disposable gloves should be worn for direct contact with lesions and disposed of after use.
- Skin lesions should be covered to the best extent possible (e.g., long sleeves, long pants) to minimize risk of contact with others.

- Contain and dispose of contaminated waste (such as dressings and bandages) after consultation with State or local health officials. Do not dispose of waste in landfills or dumps.

### **Proper Hand Hygiene and Cleaning Procedures**

- Hand hygiene (i.e., hand washing with soap and water or use of an alcohol-based hand rub) should be performed by infected persons and household contacts after touching lesion material, clothing, linens, or environmental surfaces that may have had contact with lesion material.
- Laundry (e.g., bedding, towels, and clothing) may be washed with warm water and detergent; bleach may be added but is not necessary
- Care should be taken when handling soiled laundry to avoid direct contact with contaminated material
- Soiled laundry should not be shaken or otherwise handled in a manner that may disperse infectious particles
- Dishes and other eating utensils should not be shared. It is not necessary for the infected person to use separate utensils if properly washed. Soiled dishes and eating utensils should be washed with warm water and soap
- Contaminated surfaces should be cleaned and disinfected. Standard household cleaning/disinfectants (freshly prepared 0.5% Sodium Hypochlorite)

### **Transportation of Monkeypox Patient**

Unless medically necessary, transportation and movement of Monkey pox patients outside of their rooms should be limited.

#### **Before transport**

The patient must wear a surgical facemask, if their medical condition allows, and

instructed to follow respiratory hygiene and cough etiquette i.e. covering the mouth/nose with a tissue when coughing and prompt disposal of used tissues. Ensure that the staff assisting with the transfer wears PPE (gloves, coverall, boots and face shield). Avoid transporting the patient through high patient flow or public access areas.

Prior to the patient being transported to treatment center, the attending physician/State epidemiologist should inform receiving physician of the case. **Avoid use of public transport if necessary.**

### **During transport**

The driver should avoid contact with the patient and act as a liaison between the ambulance crew members and local hospital staff to ensure safe transfer of the patient. Health Care Workers do not need surgical facemask or respirator if patient is wearing a surgical facemask (and infectious skin lesions are covered) and is compliant with the requirement to wear it. The accompanying crew members should maintain at least 1-2 metres distance from the patient.

Patients should be brought by wheeled bed or hospital trolley to the ward entrance if unable to walk and then transferred to the ambulance stretcher, to minimize further contamination of the hospital. Passages should be kept clear during transit of the patient. The receiving hospital should be given an estimated time of arrival by the ambulance crew, and the patient should be taken by shortest route to the appropriate ward through passages which are kept clear during the transit.

### **After transport**

Ambulances should be decontaminated with 0.5% hypochlorite solution. All items leaving the ambulance should be sent for incineration under supervision and re-usable items should be enclosed and sealed in adequate layers of autoclave bags and sent for autoclaving.

## **Visitation to Monkeypox patients in Isolation**

Visitors (family and friends) should not be allowed into the isolation ward. There may be exceptions only for visitors necessary for the patient's well-being and care, such as a child's parent.

All visitors who enter the patient's room should sign a log book. Visits should be scheduled and prior to each visit, the visitor should be assessed for signs and symptoms consistent with monkeypox, risk to the health of the visitor and ability to comply with infection prevention and control precautions.

All visitors must wear personal protective equipment and perform hand hygiene when entering the isolation ward. The patient must wear a surgical face mask when in contact with visitors. Visitors should be advised not to use patient bathroom.

There is no known definitive treatment for monkeypox. However, the condition is largely self-limiting. Supportive care and management of co-morbidities is advised and mostly successful.

# 5 Case Management

## Care of the Patients

There is no specific treatment for the disease (monkeypox). Health care staff should ensure that:

1. The patient is given enough nutrition and hydration
2. The patient receives require intravenous fluids in the hospital if required
3. Screening and management of co-morbidities and all other secondary infections is carried out
4. Continued daily assessment and management is given to admitted patients

## Protection of Health Care Givers

Monkeypox virus is transmitted by contact with the materials of lesions and fluids, also, by large respiratory droplets. It is very important that health care givers have adequate protection to avoid this contact. Universal precautions are sufficient to prevent exposure by contact with lesions and mucous membranes. Respiratory protection should help prevent exposure to respiratory droplets. The following approaches are encouraged for health care givers:

- Use medical gowns, gloves, surgical masks and goggles.
- Using two gloves per hand (double gloving) helps prevent direct contact with the virus.

- Use rubber boots if body fluids are not contained and are spread out in the environment/room.
- Avoid direct contact with patients (contact without personal protective equipment), droppings or samples taken from them.
- Wear protective clothing when entering the isolation room.
- Pay attention to the method used to remove protective clothing so that surfaces that are likely to be contaminated will never touch uncontaminated hands, face or equipment.
- Systematically rinse your hands with a disinfectant or wash them with soap and water after each contact with the patient or with his/her excrements or secretions. This should be done after removing personal protection.
- Keep those with immunocompromised systems or HIV and away from monkeypox patients.
- Preventing contact is necessary for unit personnel who do not provide patient care

### **Safe and Dignified Burial of Persons Dying of Monkeypox**

During outbreaks, any unprotected handling of the dead bodies of infected patients constitutes a biosafety hazard. This poses a major risk of transmission, as the dead body remains contagious several days after death. The management of the burial is therefore the responsibility of the safe burial teams.

The family and members of the community are also at risk, if the burial rites involve manipulation and cleaning of the body.

The burial team is to oversee the safe burial of the victims. This team must adhere to the following key principles:

- Verbally convey condolences and sympathy to the victim's family
- Clearly but emphatically explain the procedure for handling of remains and outline how and why the procedure for body preparation and burial will differ from the normal/local tradition.
- If a psychologist is available, collaborate with him/her in engaging with the family.
- If necessary, employ the support of security agents.
- Avoid conduct of funeral ceremonies during the burial
- Ensure that the patient's home is disinfected.

The burial must take place as soon as possible after preparation of the remains at the hospital. The Safe Burial team should:

- Prepare the body with care to avoid the risk of transmission.
- Strive to respect the cultural practices and religious beliefs of the family, as long as they do not result in a risk of transmission. Let the family understand that certain practices that entail a risk of transmission will be abandoned.
- Advise the family and the community on actions to take in order to protect themselves against the disease.
- If the body is prepared without information or support to the family and the community, the members of the community would not be willing to bring other relatives to the hospital for fear of not receiving the dead body once the patient has died.
- Find and use an influential member of the family in ensuring that dangerous practices like touching and washing the dead body are avoided.

# 6

## Guideline for Psychosocial Management of Patients in Isolation

Monkeypox as with all zoonotic infections, has the propensity to evoke fear and panic in the community. This may often lead to stigmatization and social exclusion of the patient, survivors and their relations. Psychological effects of zoonotic infections can complicate not only the clinical management of patients but also other public health response activities like contact tracing, and risk communication.

Patients in isolation wards (being managed for infectious diseases) are prone to loneliness and depression as well as a feeling of stigmatization. Another negative effect of isolation is the removal of familiar objects and routines, which may evoke fear, anxiety, depression, and rapid mood changes among the patients.

All health workers managing patients in isolation wards should be able to take definite actions to prevent, detect and response to psychological distress in their patients. The following are recommended steps that can help ensure the psychological wellbeing of patients admitted into isolation wards.

### **Pre-admission**

- Provide information for the patient on why isolation is necessary emphasizing that every step will be taken to ensure they are not kept in isolation longer than necessary.
- Provide information on the illness, its treatment, as well as the procedures of the isolation unit (for example, it should be made clear whether the patient can leave the room, who has permission to enter, etc.)
- The information should be made available in the patient's primary language, and



at a level they can understand.

### **On Admission**

- Assess the psychological/emotional status of patients upon initiation of isolation precautions using a standardized protocol or instrument (see attached appendix 1). This may be performed by nursing staff, or the attending physician. Where possible, the assessment information should be sent to a consulting psychiatrist/psychologist. Assessments should be repeated on a regular basis as patients may develop symptoms over time, depending on the severity of their condition and the length of isolation.
- Maintain the patient's orientation as much as possible making use of simple things like a calendar, a diary, and making the isolation ward patient-friendly
- Encourage patients to express any negative feelings they may have which are associated with being in isolation so that prompt remedies can be instituted.
- Make efforts to relieve patient's boredom e.g. through the provision of newspapers and magazines, as well as providing access to radios, mobile phone and supervised visits
- Provide a referral to a psychiatrist or licensed mental health practitioner when symptoms interfere with functioning; if a pre-existing condition is identified, or when the patient expresses suicidal or homicidal ideation. If possible, include a psychiatrist or licensed mental health practitioner as a member of the treatment team to assess or screen isolated patients on a routine basis
- Consider implementation of suicide precautions protocol if indicated (consult a certified mental health worker for advice)

## Post admission

- Assess patients psychological/emotional status before discharge and if indicated link the patient with mental health care services
- Replace any patient item destroyed as a result of isolation procedures
- Provide follow up services
- Provide relevant psychological support services to patient's relations as needed.

## Screening Resources for Psychological Distress among Patients in the Isolation Wards

*(Adapted from guideline provided by State of Nebraska Department of Health and Human Services, under Federal Cooperative Agreements from the Centers for Disease Control and Prevention Public Health Emergency Preparedness)*

The following can be used by hospital personnel for screening of patients in medical isolation

### Emotional health

In general, nursing protocol should include routine conversation with, and observation of the patient in relation to their emotional health and well-being while under isolation precautions.

*The following questions can be used to ask about emotional or psychological health.*

1. How are you feeling right now?

Fine\_\_\_\_\_ Angry\_\_\_\_\_ Anxious\_\_\_\_\_ Sad\_\_\_\_\_

Pushing people to respond to this question may not always be advisable. Moving to the next question may help the person identify how they have coped successfully with stressful situations in the past.

2. **Tell me about a time when you were in an unfamiliar or stressful situation and how you got through it.**

(Listen for ways the patient has coped successfully in the past that can be applied to this situation)

3. **What mood would you say you are in most of the time?**

Happy\_\_\_\_\_ Angry\_\_\_\_\_ Sad\_\_\_\_\_ Worried\_\_\_\_\_

(Listen for their description and notice if it matches their behavior)

4. **Have you been feeling down or sad most of the day?** (If yes, continue to question a)

Yes\_\_\_\_\_ No\_\_\_\_\_

***a. How long have you felt this way?***

(It is not uncommon for people in isolation to feel sad. It is potentially concerning if this feeling of sadness is pervasive and unrelenting. Notice if the feelings of sadness preceded isolation precautions. Ask the patient or family about how they successfully dealt with these emotions in the past.)

5. **Have you found yourself wishing you were dead or thinking everyone would be better off if you were dead?**

Yes\_\_\_\_\_ No\_\_\_\_\_

(It would not be unusual for a person in medical isolation to think about death. Allow the patient to talk about their feelings. Just because they may wish they

were dead does not necessarily mean they are actively trying to end their life. Follow up with the next question about suicide.)

6. **Have you been thinking about hurting yourself in any way?** (If yes, continue to ask questions a – d)

Yes\_\_\_\_\_ No\_\_\_\_\_

(Asking about thoughts of suicide does not cause someone to be suicidal. Most experts believe that asking directly about these thoughts gives the person permission to talk about them and may actually be beneficial. Consider the use of suicide precautions if clinically indicated.)

*a. What has kept you from killing yourself?*

*b. Who are the people who you feel closest to?*

*c. What have you thought about doing?*

*d. What helps you when you feel this way?*

7. **Do you ever hear or see things other people say they don't hear or see?**

(The goal of asking this question is to see if the person is experiencing any type of hallucinations. The cause of any hallucinations may be related to the physical condition of the patient and not indicative of a psychological problem. It is important to help the person understand that regardless of the cause of these symptoms, there is hope for their resolution.)



# Risk Communication

## **Public health educational messages should focus on the following risks:**

### **Reducing the risk of human-to-human transmission**

- Close physical contact with monkeypox infected people should be avoided.
- Gloves and protective equipment should be worn when taking care of ill people.
- Regular hand washing should be carried out after caring for or visiting sick people.

### **Reducing the risk of animal-to-human transmission.**

- Efforts to prevent transmission in endemic regions should focus on thoroughly cooking all animal products (blood, meat) before eating.
- Gloves and other appropriate protective clothing should be worn while handling sick animals or their infected tissues, and during slaughtering procedures.

### **Reducing panic and Stigmatisation**

- Monkeypox is self-limiting and treatable with very low fatality rate
- Stigmatization of patient in community and health facilities should be discouraged
- Psychosocial support should be provided for patients during care and after discharge from isolation center.



## ANNEX A - MONKEYPOX CASE INVESTIGATION FORM

Epid number:

Date of Investigation: \_\_\_/\_\_\_/\_\_\_

Collect at least two specimens from each patient. For each specimen: place a label on this form and a label on the specimen tube. Ensure that the two labels have the same name/number of the specimen.

Case reported by Name \_\_\_\_\_ Title \_\_\_\_\_ Phone No \_\_\_\_\_

### Section 1: Patient Identity

1. Last Name \_\_\_\_\_ First Name \_\_\_\_\_
2. For children, father's name \_\_\_\_\_
3. Date of birth \_\_\_/\_\_\_/\_\_\_
4. Age (years) \_\_\_\_\_
5. Gender  M  F
6. Village/settlement/street of residence during the last 6 months \_\_\_\_\_
7. State \_\_\_\_\_ LGA \_\_\_\_\_ Ward \_\_\_\_\_
8. Nationality \_\_\_\_\_ Ethnicity / tribe \_\_\_\_\_
9. Occupation of the patient \_\_\_\_\_

### Section 2: Patient status

10. Status of the patient:  Alive  Dead
11. If dead, date of death \_\_\_/\_\_\_/\_\_\_ Place of death: \_\_\_\_\_
12. Place of the funeral, name village: \_\_\_\_\_ LGA \_\_\_\_\_ State \_\_\_\_\_

## ANNEX A - MONKEYPOX CASE INVESTIGATION FORM CONT'D

**Epid number:** \_\_\_\_\_

13. Is a smallpox vaccination scar present?  Yes  No  Do not know

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### Section 3 : Medical history

14. Date of onset of symptoms: \_\_\_/\_\_\_/\_\_\_

15. Name of the village where the patient got ill \_\_\_\_\_ Country \_\_\_\_\_

16. a. Did the patient travel anytime in the three weeks before becoming ill:  Yes  No  DNK

b. If yes, indicate the place\_\_ (1) \_\_\_\_\_ (2) \_\_\_\_\_

17. a. Did the patient travel during illness:  Yes  No  DNK

b. If Yes, indicate the places (1) \_\_\_\_\_ (2) \_\_\_\_\_

18. Does the patient have a cutaneous eruption/rash?  Yes  No  DNK.

19. If yes, date of onset for the rash: \_\_\_/\_\_\_/\_\_\_

20. Did the patient have fever?  Yes  No  DNK. If yes, date of onset for the fever:

\_\_\_/\_\_\_/\_\_\_

21. If there is active disease,

a. Are the lesions in the same state of development on the body?  Yes  No  Do not know

b. Are all of the lesions the same size and state of development?  Yes  No  Do not know

c. Are the lesions deep and profound?  Yes  No  Do not know

22. Localisation of the lesions.  Face  Legs  Soles of the feet  Palms of the hands

Thorax  Arms  Genitals  All over the body

## ANNEX A - MONKEYPOX CASE INVESTIGATION FORM CONT'D

**epid number:** \_\_\_\_\_

23. Do the lesions resemble (for each photo):



a.  Yes  No

b.  Yes  No

c.  Yes  No

d.  Yes  No

24. Does or did the patient have any of the following symptoms (check all that apply)

Vomiting/nausea  Yes  No  DNK      Headache  Yes  No  DNK  
 Cough  Yes  No  DNK      Lesions that itch  Yes  No  DNK

Lymphadenopathy, inguinal  Yes  No  DNK      Muscle pain (myalgie)  Yes  No  DNK

Lymphadenopathy, axillary  Yes  No  DNK      Fatigue  Yes  No  DNK

Lymphadenopathy, cervical  Yes  No  DNK      Conjunctivitis  Yes  No  DNK

Chills or sweats  Yes  No  DNK      Sensitivity to light  Yes  No  DNK

Sore throat when swallowing  Yes  No  DNK      Is the patient bedridden?  Yes  No  DNK

Oral ulcers  Yes  No  DNK

25. Does the patient have any other associated medical conditions?

Pregnancy  Yes  No  DNK

Malnutrition  Yes  No  DNK

HIV/AIDS  Yes  No  DNK

Diabetes  Yes  No  DNK



## ANNEX A - MONKEYPOX CASE INVESTIGATION FORM CONT'D

**Epid number:** \_\_\_\_\_

### Section 4: Exposures

26. During the three weeks preceding the onset of symptoms, did the patient have contact with one or more persons who had with similar symptoms?  Yes  No  Do not know

If Yes, respond to the following questions concerning these additional ill people (indicate all of the ill people). There is additional space for multiple contacts at the end of this form.

27. Last name \_\_\_\_\_ First name \_\_\_\_\_

28. Relationship with the patient \_\_\_\_\_

29. First date of contact with the ill person \_\_\_/\_\_\_/\_\_\_

30. Did the patient touch a domestic or wild animal during the three weeks preceding symptom onset?  Yes  No  Do not know

31. If Yes, what kind of animal \_\_\_\_\_

32. Date of contact \_\_\_/\_\_\_/\_\_\_

33. Type of contact (*check all that apply*)

- |  |  |
|--|--|
| <input type="checkbox"/> Rodents alive in the house        | <input type="checkbox"/> Dead animal found in the forest |
| <input type="checkbox"/> Alive animal living in the forest | <input type="checkbox"/> Animal bought for meat          |

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### Section 5: Laboratory

34. Was a specimen collected?  Yes  No 35. If Yes, date \_\_\_/\_\_\_/\_\_\_

35. Type:  Crust  Swab  Blood

Collect at least two types of specimens from each patient. For each specimen: place a label on this form and a label on the specimen tube. Ensure that the two labels have the same name/number of the specimen.

## ANNEX A - MONKEYPOX CASE INVESTIGATION FORM CONT'D

**Epid number:** \_\_\_\_\_

### Section 6: Update on the Hospital information

36. Was the patient sent to a hospital?       Yes    No
37. Was the patient admitted in the isolation ward?       Yes    No
38. If Yes, Name of Hospital \_\_\_\_\_ Hospitalization date \_\_\_/\_\_\_/\_\_\_
39. Date of discharge \_\_\_/\_\_\_/\_\_\_ OR Date of death \_\_\_/\_\_\_/\_\_\_

### Section 7: Additional contacts of the patient

Full Name	Location/Address	Sex	Relationship	Type of contact e.g. touch, breastfeeding, sexual

## ANNEX B - IMMEDIATE/CASE-BASED SURVEILLANCE REPORTING FORM IDSR 001A

WHO/AFRO recommends a generic case-based reporting form that can be used to report written

REPORTING HEALTH FACILITY				REPORTING LGA		REPORTING STATE				
IDENTIFICATION NUMBER						IDSR 001A				
Immediate/ Case-based Reporting Form From Health Facility/Health Worker to LGA health team										
Cholera	Dracunculiasis (Guinea Worm)	Neonatal Tetanus	Measles	Meningitis	Human Influenza caused by new sub type e.g A/H5N1	Viral Hemorrhagic Fever e.g. Lassa fever	Yellow Fever	Diarrhoea with Blood /shigella(Under 5)	Others/specify* e.g. Dengue, SARS, Small pox, Plague, Anthrax etc	
Date form received at SMOH or the national level:      /      /      (Date/Month/Year)										
Name of Patient:										
Date of Birth (DOB):      /      /      (Day/Month/Year)				Age (if DOB unknown):		Year	Month (if <12)	Day (NNT only)		
Sex:		M=Male F=Female								
Patient's Address:		Urban		Rural						
Settlement/Village										
Ward			LGA			State:				
Exact residential address:		If applicable or If the patient is neonate or child, please write full name of mother and father of the patient								
Date Seen at Health Facility:      /      /			Date Health Facility notified LGA/:      /      /			Date of Onset:      /      /				
Number of vaccine doses received:		9=unknown For cases of Measles, NT (TT in mother), Yellow Fever, and Meningitis (For Measles, TT, YF- by card & for Meningitis, by history)								
Date of last vaccination:		/      /      (Measles, Neonatal Tetanus (TT in mother), Yellow Fever, and Meningitis only)								
Close contact with infected poultry		1=Yes 2 =No								
Close contact with suspected or confirmed case of Avian influenza		1= Yes 2 =No								
Associated with an outbreak?		1=Yes 2=No								
In/Out Patient		1=Inpatient			2=Outpatient					
Outcome		1=Alive			2=Dead			9=Unknown		
Final Classification of case		1=Confirmed		2=Probable		3=Discarded		4=Suspect		
Final Classification for Measles		1= Laboratory Confirmed		2= Confirmed by Epidemiological linkage		3=Clinical Compatible		4=Discard	5=Suspect with lab pending	
Person completing form Name:					Signature:					
Title:					Address:					

## **ANNEX B - IMMEDIATE/CASE-BASED SURVEILLANCE REPORTING FORM IDSR 001A CONT'D**

Information about individual cases of priority diseases recommended for case-based surveillance. These include:

- Epidemic-prone diseases (cholera, diarrhoea with blood\*, measles, meningitis, viral hemorrhagic fevers and yellow fever)

*\* Not every case of bloody diarrhoea is reported. Report diarrhoea with blood when an outbreak is suspected either because there has been an adult death in a patient who had diarrhoea with blood, or when a threshold has been reached that prompts reporting. Please see disease specific guidelines in Section 9.0 for guidance on when to report a suspected outbreak of Shigella.*

## ANNEX C - IDSR CASE-BASED LABORATORY REPORTING FORM (001B)

If Lab Specimen Collected

<b>For Health Facility: If lab specimen is collected, complete the following information and send a copy of this form to the lab with the specimen.</b>					
Date of specimen collection: ____/____/____					
Type of specimen:	Stool	Blood	CSF	Other/specify	
Date specimen sent to lab: ____/____/____					
ID Number:					
<b>For the Lab: Complete this section and return the form to LGA/ health facility or clinician</b>					
Date lab received specimen: ____/____/____					
Specimen Condition:		Adequate	Not adequate		
Disease/Condition:					
Type of Test:					
Result:		+ = Positive	- = Negative	P = pending	
Malaria	P. Falci-parum				
	P. Vivax				
<b>Cholera</b> (culture)					
<b>Cholera</b> direct exam; specify the method used: _____					
Meningitis: N meningitides	Culture				
	Latex				
	Gram stain				
Meningitis: S. pneumonia	Culture				
	Latex				
	Gram stain				
Meningitis: H. influenza	Culture				
	Latex				
	Gram stain				
Shigella dysenteriae	Culture				
	Type	SD Type 1	Other Shigella types		No Shigella
Result:		+ = Positive	- = Negative	I= Indeter.	P=Pending
Viral Detection	Yellow fever (IgM)				
	Measles (IgM)				
	Rubella (IgM)				
	RVF (IgM)				
	Ebola (IgM)				
	Lassa (Ig M)				
	Marburg (IgM)				
	A/H5N1 (RT-PCR)				
Other lab test (specify)	Results:				

**ANNEX C - IDSR CASE-BASED LABORATORY REPORTING FORM (001B) CONT'D**

Name of lab sending results:		
Other pending results:		
Name of lab technician sending the results:		Signature:

Date LGA/ receive lab results: ___/___/_____	LGA/:	
Date lab results sent to health facility by LGA/: ___/___/_____		
Date lab results received at the health facility: ___/___/_____		



FEDERAL MINISTRY OF HEALTH - NIGERIA CENTRE FOR DISEASE CONTROL  
**INTERIM NATIONAL GUIDELINES FOR MONKEYPOX OUTBREAK RESPONSE**

**The Interim National Guidelines for Monkeypox Outbreak Response has been developed to guide proactive measures and effective response to occurrence of an infection.**

**This guideline highlights areas of action for health workers and authorities across the three tiers of government, ensuring health security in Nigeria.**

**FEDERAL MINISTRY OF HEALTH  
NIGERIA CENTRE FOR DISEASE CONTROL**

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