



# **TESSy - The European Surveillance System**

**Monkeypox (MPX)**

**Reporting Protocol**

**Version 2.0, 16 June 2022 (revised 22 June 2022)**

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### Summary of changes

Updated to RecordTypeVersion 2.

Changed coded value list for TravelPlaces to include all places worldwide.

RASHLOCUNK (Skin/mucosal lesions where the location is not known) added to the coded value list for ClinicalSymptoms.

YUNK (yes for unknown reason) added to the coded value list for Hospitalisation (added in revised version on 22 June 2022).

## How to use this document

This Reporting Protocol provides information for data managers in reporting countries in two main sections:

- [Reporting to TESSy](#) – contains guidelines on how to prepare data for submission to TESSy, deadlines for reporting, subject-specific information (e.g. new changes to metadata), and links to further information.
- [Annex](#) – contains:
  - A history of metadata changes for the subject(s) covered by this Reporting Protocol.
  - The metadata set for the subject(s) covered by this Reporting Protocol.

## Finding further information

 Paragraphs denoted by the information icon tell where you can find further information.

Updated links to all the schedules, documentation and training materials mentioned in this Reporting Protocol are included in the [TESSy Technical Guidelines & Tools](#) (see the menu 'Technical Guidelines and Tools' when logged in TESSy), including:

- Metadata sets and history.
- Tutorials for data transformation using respectively Excel and Access.
- TESSy user documentation.
- [CSV](#) and [XML](#) transport protocols.

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## Introduction

This reporting protocol is intended for reporting national case-based data for surveillance of monkeypox from all the countries and areas of the WHO European Region, including the 27 countries of the European Union (EU) and the additional three countries of the European Economic Area (EEA), to the European level.

Data are submitted through the case-based record type MPX to the European Surveillance System (TESSy) database hosted at ECDC.

Data can be reported to TESSy either manually, for entry of single cases, or through metadata-standardised CSV or XML files for multiple cases (please see technical annex).

**Case data including retrospective updates to cases already in TESSy should be reported at least twice weekly, Tuesdays by 10:00AM and Fridays by 10:00AM.**

This reporting protocol is supplemented by a technical annex, which contains updated generic information for data submission.

First cases should be reported to WHO/ECDC through IHR/EWRS mechanisms. Any additional cases should be reported to TESSy only. Please note that all data are collected jointly with the World Health Organisation – Regional Office for Europe (WHO/Europe) to fulfil Member States reporting requirements to WHO. Duplicate reporting is therefore not required.

## Case definition

Probable and confirmed cases should be reported according to the current ECDC or WHO case definitions for monkeypox (**Annex 2**). Information on the case definition used should be provided in the variable CaseDefinition. If a national case definition is used this information should also be provided in the variable CaseDefinition.

## Aim

To support the timely and complete reporting of key information on monkeypox epidemiology in the the countries and areas of the WHO European Region, including the 27 countries of the European Union (EU) and the additional three countries of the European Economic Area (EEA).

## Surveillance Objectives

1. Monitor the intensity and geographical spread of the monkeypox virus in the population in time, place and person;
2. To understand the natural history and epidemiology of the disease including risk factors for infection in order to assess its impact and prepare accordingly
3. To describe the population at highest risk of infection and severe outcomes in order to target preventive or control measures
4. Assess the impact of any control and prevention measures.

# Reporting to TESSy

This section provides both an overview of the TESSy reporting process and tips on where you can find useful information.

The overall process includes:

1. Familiarising yourself with the data collection deadlines
2. Preparing (exporting and transforming) your data
3. Checking that your data comply with the metadata
4. Checking that your data source profile is up-to-date
5. Submitting your data to TESSy
6. Finalising and approving your submission.

## Data collection schedule

Case data including retrospective updates to cases already in TESSy should be reported at least twice weekly, Tuesdays by 10:00AM and Fridays by 10:00AM.

## Preparing data

Data may be entered directly in TESSy for individual records ('Manually create a record'). For any batch reporting by file upload (CSV or XML format) please note that once the data has been exported from your national database it needs to be in a format that TESSy can accept (see 'checking metadata').

 Tutorials covering how you can transform your data to the correct TESSy format using Excel or Access are available on the [TESSy documents website](#). Information on the file formats is available in the [CSV Transport Protocol](#) and [XML Transport Protocol](#).

## Checking metadata

The TESSy metadata define the fields and valid data formats for input to TESSy for a given subject.

To ensure data can be saved correctly in TESSy, please check the data are correctly formatted according to the most recent metadata set.

Changes to the metadata for the subject of this Reporting Protocol are described in:

- [Changes to current metadata](#) – changes since the last Reporting Protocol.
- [Annex Metadata change history](#) – all preceding changes.

It is especially important to focus on:

- **Field formats**  
Many fields require that data are formatted in a specific way. For example, dates must be in the **YYYY-MM-DD** format; dates in the DD/MM/YYYY format will be rejected.
- **Coded values**  
Some fields only permit the use of specific values (coded values). For example, **M, F, UNK**, or **Other** are the coded values for *Gender* and any other value in a *Gender* field will be rejected.
- **Repeatable fields**  
For variables where multiple items of the coded value list apply, the field should be repeated as needed to include only one item per field. If not applicable, use N/A.

The metadata file contains all the definitions and rules you need to comply with to format your data correctly. The file can be downloaded as an Excel file from the TESSy documents website.

By filtering the fields in the file by subject, you can see the fields required for your subject and the rules applying to these fields.

 The [Tessy User Guide](#) provides an overview of how you work with the metadata file, and the TESSy user documentation provides in-depth details on metadata.

## Checking your data source profile

Before submitting your data, please review the profile for your data source(s) in TESSy (go to **Data Sources**), and update the information, if necessary.



Complete and up-to-date data source information for each subject facilitates surveillance data interpretation - each surveillance system has different features that need to be considered when comparing data at international level.

If your data source information is outdated and you do not have access rights to update it, please ask your National Focal Point for Surveillance or National Coordinator to do so.

 In-depth information on the data source variables is available in the TESSy user documentation.

## Submitting your data

Data are submitted through the TESSy web interface (go to **Upload**). Previously reported data can be found through the review tab (see below).



 The [Tessy User Guide](#) provides an overview of how you submit files to TESSy and in-depth descriptions of all the upload methods.

## Finalising your submission

The compliance of your data with the validation rules in the metadata is checked automatically during the data upload process.

The result of your upload – i.e. rejected or validated – is displayed immediately after the check in the **Validation details** webpage has completed. Please review the result carefully:

- If your file has been rejected, there will be a message explaining each instance of non-compliance with the metadata that you need to correct.
- If your file has been validated, there might be warnings and remarks relating to possible data quality issues or to potential overwriting of existing records that you should consider.

When your file has been validated and you are satisfied that all corrections have been made, please ensure prompt approval – unapproved uploads can block the approval of other uploads.

 The TESSy user documentation provides information on reviewing validation results and adjusting reporting periods to avoid overwriting existing records.

 General training and guidance on reporting is available on the [TESSy website](#).

## TESSy HelpDesk

Email: [TESSy@ecdc.europa.eu](mailto:TESSy@ecdc.europa.eu)

Telephone number: **+46-(0)8-5860 1601**

Availability: 9:00 – 16:00 Stockholm time, Monday to Friday (except ECDC Holidays)

## Changes to MPX metadata

Updated to RecordType 2 to change coded value list for TravelPlaces to include all places worldwide and add RASHLOCUNK (Skin/mucosal lesions where the location is not known) to the coded value list for ClinicalSymptoms.

# Annex 1 – Monkeypox metadata

## Revisions of MPX metadata set

The MPX metadata have been developed in collaboration with WHO. The most recent metadata set is available from the TESSy website under technical guidelines and tools tab (as shown below).



## Current record type versions

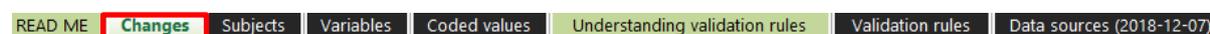
Table 1 shows the record type versions to be used when reporting monkeypox (Record type: MPX) data to TESSy.

Table 1: MPX record type versions

Record	Type of data	Record type version
MPX	Case-based	2

## MPX metadata change history

When you open a metadata set, the Excel file has a tab 'Changes', recording historical changes.



## MPX metadata recordtype version 2

### Common TESSy variables

#### Record Identifier (mandatory)

Field: RecordId

Coding: Text (max 80 characters)

The record identifier is provided by the Member State. It must be:

- unique within the national MPX reporting system (records with the same ID will be overwritten)
- anonymous.

#### Record type (mandatory)

Field: RecordType

Coding: MPX

The record type defines the structure and the format of the data reported. The record types are defined by ECDC and are related to the subject. Only valid combinations of subject, record type and data source are accepted.

#### Record type version

Field: RecordTypeVersion

Coding: 2

The version of the record type defines the current structure of the data reported. The current version of the MPX record type is 2.

This variable is not mandatory as TESSy concludes the record type version from the metadataset indicated by default. However, the variable RecordTypeVersion can override this default.

### **Subject (mandatory)**

Field: Subject

Coding: MPX

The subject describes the disease to be reported.

### **Data source (mandatory)**

Field: DataSource

Coding: To be assigned by each country to an existing data source, or to a newly created one.

The data source specifies the surveillance system from which the data originates and is generated and revised/updated by the national focal point in each Member State. The descriptions of the surveillance systems submitted to TESSy ([section Data Sources](#)) will be used to assist with data interpretation. Make sure that the subject "MPX" is associated with this data source.

### **Reporting country (mandatory)**

Field: ReportingCountry

Coding: International organization for standardization (ISO) 3166-1-alpha-2, (two-letter code)

This variable identifies the country reporting the case.

### **Date used for statistics (mandatory)**

Field: DateUsedForStatistics

Coding: yyyy-mm-dd

Date when the case report is notified the first time to the place of notification.

### **Status (mandatory)**

Field: Status

Coding: NEW/UPDATE  
DELETE

The field 'Status' is used for updating data; the default is 'New/Update'. By choosing 'Delete' the selected record (or batch of data) will remain in TESSy but be marked as inactive; this data can be used to reconstruct data for a given date in the past.

## **Epidemiological variables**

*In alphabetic order by field.*

### **Accession number**

Field: AccessionNumber

Coding: TEXT

Sequence identifier for whole genome or whole or partial gene sequence, based on which the sequence read data can be retrieved from external database such as GenBank, ENA or other database.

**Age (mandatory)**

Field: Age

Coding: Numerical (0-120)  
UNK = Unknown

Age of patient in years at the time of disease onset.

**Age in months**

Field: AgeMonth

Coding: Numerical (0-23)  
NA = Not applicable  
UNK = Unknown

Age of patient in months at diagnosis for cases &lt;2 years of age at the time of diagnosis.

**Animal contact**

Field: AnimalContact

Coding: N = No  
PET = Household pets excluding rodents  
PETRODENTS = Rodent pets  
UNK = UNK  
WILD = Wild animals excluding rodents  
WILDRODENTS = Wild rodents

Animal contact in the 21 days before symptom onset or date of diagnosis.

**Antiviral treatment**

Field: AntiviralTreatment

Coding: TEC = tecovirimat  
BRI = brincidofovir  
CID = cidofovir  
UNK = Unknown  
YUNK = Yes, but name of antiviral treatment not known  
N = No antiviral treatment

Information if case has received treatment with antivirals. Note this is a repeatable field.

**Case definition used**

Field: CaseDefinition

Coding: ECDC = ECDC case definition  
NAT = National case definition  
UNK = Unknown  
WHO = WHO case definition

Case definition used for classification of the case (see Annex 2 for the ECDC and WHO case definitions).

**CD4 cell count**

Field: CD4Cells

Coding: Numerical (0-6000)  
NA = Not applicable  
UNK = Unknown

CD4 count at time of diagnosis of monkeypox.

**Clade of monkeypox virus**

Field: Clade

Coding: WA = West African clade  
CB = Congo Basin clade  
UNK = Unknown

Clade of the genomically characterised monkeypox virus.

### **Classification (mandatory)**

Field: Classification

Coding: CONF = Confirmed  
PROB = Probable  
UNK = Unknown

Case classification according to case definition used.

### **Clinical symptoms of the case (mandatory)**

Field: ClinicalSymptoms

Coding: ASY = Asymptomatic  
RASH = Skin/mucosal lesions excluding oral or anogenital areas  
GENITAL = Anogenital dermatological skin/mucosal lesions  
RASHLOCUNK = Skin/mucosal lesions where the location is not known  
ORAL = Oral dermatological skin/mucosal lesions  
FEVER = Fever  
MUSC = Muscle pain (myalgia)  
SORTHR = Sore throat  
FATIGUE = Fatigue  
CHILLS = Chills or sweats  
HEAD = Headache  
CONJ = Conjunctivitis  
VOMIT = Vomiting/nausea  
COUGH = Cough/respiratory symptoms  
LYMPH = Generalised lymphadenopathy  
LOCALLYMPH = Localised lymphadenopathy  
O = Other symptoms (specify in ClinicalSymptomsOther)  
UNK = Unknown

Clinical symptoms including rash/fever/lymphadenopathy at any point during the illness. Note this is a repeatable field.

### **Clinical symptoms other specified**

Field: ClinicalSymptomsOther

Coding: TEXT

Clinical symptoms not captured in the coded values for ClinicalSymptoms variable as indicated by O response for ClinicalSymptoms variable.

### **Concurrent STI**

Field: ConcurrentSTI

Coding: CHLAM = Chlamydia  
HERP = Genital herpes  
LGV = LGV  
MYCO = Mycoplasma genitalium  
N = No concurrent STI  
SYPH = Infectious syphilis  
TRICH = Trichomonas vaginalis  
WARTS = Genital warts  
GONO = Gonorrhoea  
UNK = Unknown

Concurrent STI at time of diagnosis. Note this is a repeatable field.

### **Date of death**

Field: DateOfDeath

Coding: *yyyy-mm-dd*

UNK = Unknown

Date for date of death. If not applicable, please use 'UNK'.

### **Date of diagnosis**

Field: DateOfDiagnosis

Coding: *yyyy-mm-dd*

UNK = Unknown

First date of clinical or laboratory diagnosis. In case the DateofOnset is missing this timestamp is used.

### **Date of last smallpox vaccine dose**

Field: DateLastVaccDose

Coding: *yyyy-mm-dd*

*yyyy-mm*

*yyyy*

UNK = Unknown

Date of last smallpox vaccine dose.

### **Date of onset of symptoms (mandatory)**

Field: DateOfOnset

Coding: *yyyy-mm-dd*

UNK = Unknown

Date of onset of symptoms. Not applicable in asymptomatic cases. If not applicable, please use 'UNK'.

### **Epidemiological link**

Field: EpiLinked

Coding: N = No

UNK = Unknown

Y = Yes

Epidemiological link to a confirmed or probable case.

### **Exposure setting**

Field: ExposureSetting

Coding: HOUSE = Household

WORK = Workplace

SCHOOL = School/nursery

HEALTH = Healthcare (including laboratory exposure)

PARTY = Sexual contact at night club/private party/sauna or similar setting

BAR = Bar/restaurant or other small event where there was no sexual contact

LARGE = Large event with no sexual contact (e.g., festival or sports event)

LARGECONTACT = Large event with sexual contact

O = Other location (specify in ExposureSettingDetails)

UNK= Unknown

Location of exposure in the 21 days before symptom onset or date of diagnosis. Note this is a repeatable field.

### **Exposure setting details**

Field: ExposureSettingDetails

Coding: TEXT

Details on place of exposure if ExposureSetting "O" or any organised event.

### **Gender (mandatory)**

Field: Gender

Coding: F = Female  
M = Male  
O = Other (e.g., transsexual)  
UNK = Unknown

Gender of the reported case.

### **Genomic characterisation**

Field: GenomicCharacterisation

Coding: N = No  
UNK = Unknown  
Y = Yes

Information if genomic characterisation has been carried out.

### **Health care worker**

Field: HealthCareWorker

Coding: N = No  
UNK = Unknown  
Y = Yes

Information on whether the case is a healthcare worker.

### **HIV status**

Field: HIVStatus

Coding: POS = Positive  
NEG = Negative  
UNK = Unknown

HIV status of the case.

### **Hospitalisation**

Field: Hospitalisation

Coding: N = No  
UNK = Unknown  
YISOL = yes for isolation purposes  
YTREAT = yes due to clinical need  
YUNK= yes for unknown reason

Information if case was admitted to hospital.

### **Immunocompromised**

Field: ImmunoCompromised

Coding: N = No  
UNK = Unknown  
YD = Yes, due to disease  
YM = Yes, due to medication  
YRU = Yes, reason unknown

Information if case is immunocompromised.

## **Intensive care**

Field: IntensiveCare

Coding: N = No  
UNK = Unknown  
Y = Yes

Information if case was admitted to an intensive care unit or high dependency unit (unit with capabilities for more intensive observation, treatment and nursing care than can be provided on a regular ward).

## **Laboratory method**

Field: LabMethod

Coding: MPXPCR = Positive monkeypoxvirus-specific PCR  
ORTHOPOXPCR = Positive orthopoxvirus PCR  
SEQ = Sequencing  
ISOV = Isolation of virus  
EM = Virus detection by electron microscopy  
SERO = Serology  
UNK = Unknown

Laboratory method used to diagnose the case. Note this is a repeatable field.

## **Outcome of the case (mandatory)**

Field: Outcome

Coding: A = Alive  
D = Died  
UNK = Unknown

Information on whether the case is alive (still ill, recovered, cured) or deceased. The death should be due to the reported disease.

## **Place of notification**

Field: PlaceOfNotification

Coding: NUTS\_GAUL  
UNK = Unknown

The place of notification should be provided by regions (up to NUTS3 level). Select the most detailed NUTS level possible. If the place of notification is not an EU/EEA country, then use GAUL nomenclature.

## **Pregnant**

Field: Pregnant

Coding: PREG = Pregnancy, trimester is unknown  
PREG1 = Pregnancy, 1st trim, the 1st trim is from week 1 to the end of week 12  
PREG2 = Pregnancy, 2nd trim, the 2nd trim is from week 13 to the end of week 26  
PREG3 = Pregnancy, 3rd trim, the 3rd trim is from week 27 to the end of the pregnancy  
PREGPOST = Post-partum (<6 weeks)  
N = No  
UNK = Unknown  
NA = Not applicable

Information if case is pregnant.

## **Sexual orientation of the case**

Field: SexualOrientation

Coding: HETERO = Heterosexual contact  
MSM = MSM/homosexual or bisexual male  
LESBIAN = Women who have sex with women

BISEXUAL = Bisexual  
O = Other  
UNK = Unknown or undetermined

Information on sexual orientation of the case.

### **Smallpox vaccine**

Field: SmallpoxVaccine

Coding:       PREV = Yes – previous vaccination unrelated to current event  
              PREEXP = Yes – pre-exposure prophylaxis for current event  
              POSTEXP = Yes – post-exposure prophylaxis for current event  
              N = No  
              UNK = Unknown

Information if case has been vaccinated with a smallpox vaccine.

### **Specimen type**

Field: SpecimenMPX

Coding:       CRUST = lesion crust  
              SWAB = lesion swab  
              OROPH = Oropharyngeal swab  
              SER = Serum  
              SEM = Semen  
              URINE = Urine  
              RECTAL = Rectal swab  
              GENITAL = Genital swab  
              O = Other specimen (specify in SpecimenOther)  
              UNK = Unknown

Type of specimen used for diagnosis. Note this is a repeatable field.

### **Specimen other specified**

Field: SpecimenMPXOther

Coding:       TEXT

Specimen not captured in the coded values for Specimen variable as indicated by O response for Specimen variable.

### **Transmission mode (mandatory)**

Field: TransmissionMPX

Coding:       ANIMAL = Animal to human transmission  
              HAI = Healthcare-associated  
              LAB = Transmission in a laboratory due to occupational exposure  
              MTCT = Transmission from mother to child during pregnancy or at birth  
              O = Other transmission (specify in TransmissionMPXOther)  
              FOMITE = Contact with contaminated material (e.g bedding, clothing, objects)  
              PTP = Person-to-person (excluding: mother-to-child, healthcare-associated or sexual transmission)  
              SEX = Sexual transmission  
              TRANSFU = Transfusion recipient  
              UNK = Unknown

Most likely mode of transmission. Note this is a repeatable field.

### **Transmission mode other specified**

Field: TransmissionMPXOther

Coding:       TEXT

Transmission mode not captured in the coded values for TransmissionMPX variable as indicated by 0 response for TransmissionMPX variable.

### **Travel**

Field: Travel

Coding: N = No travel  
UNK = Unknown  
Y = Yes

Case travelled outside country of residence in the three weeks before onset of symptoms or date of diagnosis.

### **Travel places**

Field: TravelPlaces

Coding: NUTS\_GAUL  
UNK = Unknown

Regions (up to NUTS3 level) visited in the three weeks before onset of symptoms. Select the most detailed NUTS level possible. If the region visited is not in an EU/EEA country, then use GAUL nomenclature. Note this is a repeatable field.

## Annex 2 – Case definitions

### ECDC interim case definition for monkeypox

The case definition currently does not define possible cases.

The following **interim case definition** is proposed:

#### **Confirmed case**

A person with a laboratory-confirmed monkeypox infection (1) monkeypox virus specific PCR assay positive result or (2) orthopoxvirus specific PCR assay positive result which is then confirmed by nucleotide sequence determination of the detected virus as MPXV) with symptom onset since 1st March 2022

#### **Probable case**

(1) A person with an unexplained rash\* on any part of their body

AND one or more other symptom(s) of monkeypox infection\*\* with symptom onset since 1 March 2022

AND one of the following:

- has a positive laboratory test result on orthopoxvirus infection (e.g. orthopoxvirus specific positive PCR without sequencing, electron microscopy, serology);
- has an epidemiological link to a confirmed or probable case of monkeypox in the 21 days before symptom onset;
- reports travel to MPX endemic countries in the 21 days before symptom onset;
- is a person (of any sexual orientation) who had multiple or anonymous sexual partners in the 21 days before symptom onset;
- is a man who has sex with men.

OR

(2) A person with an unexplained generalised or localised maculopapular or vesiculopustular rash with centrifugal spread, with lesions showing umbilication or scabbing, lymphadenopathy and one or more other MPX-compatible symptoms\*\*.

\* Since EU/EEA countries are just starting to identify cases and if testing capacity is sufficient, the above more sensitive case definition can be used. In countries with limited testing capacity for orthopoxviruses, the following description can be added to characterise the rash: 'unexplained localised or generalised maculopapular or vesiculopustular rash potentially with umbilication or scabbing'.

\*\*Fever (usually high >38.5°C), headache, back ache, fatigue, lymphadenopathy (localised or generalised).

Patients who fulfil the criteria for probable cases should be tested with a monkeypox virus specific PCR assay or an orthopoxvirus specific PCR assay which is then confirmed through sequencing. If negative, these patients should be excluded.

### WHO suggested outbreak case definition for monkeypox

#### **Suspected case:**

A person of any age presenting in a monkeypox non-endemic country [1] with an unexplained acute rash

AND

One or more of the following signs or symptoms, since 15 March 2022:

Headache

Acute onset of fever (>38.5°C),

Lymphadenopathy (swollen lymph nodes)

Myalgia (muscle and body aches)

Back pain

Asthenia (profound weakness)

AND

For which the following common causes of acute rash do not explain the clinical picture: varicella zoster, herpes zoster, measles, Zika, dengue, chikungunya, herpes simplex, bacterial skin infections, disseminated gonococcus infection, primary or secondary syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale, molluscum contagiosum, allergic reaction (e.g., to plants); and any other locally relevant common causes of papular or vesicular rash.

N.B. It is not necessary to obtain negative laboratory results for listed common causes of rash illness in order to classify a case as suspected.

[1] Monkeypox endemic countries are: Benin, Cameroon, the Central African Republic, the Democratic Republic of the Congo, Gabon, Ghana (identified in animals only), Côte d'Ivoire, Liberia, Nigeria, the Republic of the Congo, and Sierra Leone. Benin and South Sudan have documented importations in the past. Countries currently reporting cases of the West African clade are Cameroon and Nigeria. With this case definition, all countries except these four should report new cases of monkeypox as part of the current multi-country outbreak.

**Probable case:**

A person meeting the case definition for a suspected case

AND

One or more of the following:

has an epidemiological link (face-to-face exposure, including health workers without eye and respiratory protection); direct physical contact with skin or skin lesions, including sexual contact; or contact with contaminated materials such as clothing, bedding or utensils to a probable or confirmed case of monkeypox in the 21 days before symptom onset

reported travel history to a monkeypox endemic country<sup>1</sup> in the 21 days before symptom onset

has had multiple or anonymous sexual partners in the 21 days before symptom onset

has a positive result of an orthopoxvirus serological assay, in the absence of smallpox vaccination or other known exposure to orthopoxviruses

is hospitalized due to the illness

**Confirmed case:**

A case meeting the definition of either a suspected or probable case AND is laboratory confirmed for monkeypox virus by detection of unique sequences of viral DNA either by real-time polymerase chain reaction (PCR) and/or sequencing

**Discarded case:**

A suspected or probable case for which laboratory testing by PCR and/or sequencing is negative for monkeypox virus