



SELECT AGENT Monkeypox

Monkeypox Exposure Medical Response Guidance for the University of Wisconsin-Madison

1.0 Instructions: Information in this guidance is meant to inform both laboratory staff and health professionals about the risks and treatment in the event of an infectious agent exposure. In using this guidance, please consider that multiple routes of exposure may occur in a lab and that organism strains will sometimes be genetically modified to incorporate traits such as antimicrobial resistance. Research protocols and other available guidance such as Health Canada material safety data sheets will be provided as supporting information when available. It should be assumed that when exposures do occur, that the healthcare provider will be provided with information about the specific organism and strain involved, route of exposure, inoculum concentration, and victim vaccination and serological status, when available. This document was developed by UW Occupational Medicine in consultation with the UW Division of Infectious Disease. The information provided below is intended to provide guidance for treating physicians. Treatment and evaluation plans should be individualized to the patient based on the patient's symptoms, exposure risk, and underlying health status.

If there are any questions about this document, please contact University Health Services, Occupational Medicine at 265-5610.

2.0 Signs and Symptoms of Infection- Describe signs and symptoms associated with the agent.

Signs and symptoms of monkeypox infection present after an average incubation period of 12 days.

These include rash, fever, chills, lymphadenopathy (submandibular, cervical and inguinal), headache and myalgias.

Onset of fever precedes the rash by typically 2 days.

The rash typically starts on the face or trunk and spreads peripherally including the palms and soles of the feet. The rash can involve mucous membranes also.

The rash is described as 0.5 – 1.0 cm macules and papules. These progress over 2 or more weeks to vesicles or pustules, and then to scabbing and shedding of the scabs. Monkeypox lesions are generally all at the same stage of development and healing (This is contrast to varicella or chickenpox where the lesions are generally at different stages.)

More severe manifestations requiring further evaluation include secondary infection, pneumonitis, ocular complications, encephalitis.

3.0 Infectivity- Describe infective dose, relevant exposure routes (considering laboratory use), incubation period and potential severity of infection.

The infective dose for monkeypox is unknown.

Relevant routes of exposure include direct contact with an infected animals blood, body fluid or lesions, invasive exposure incidents such as an animal bite or needle stick, and respiratory droplets.

The route of exposure to monkeypox can influence the location and severity of the clinical manifestations. Bite wounds or invasive exposures can lead to more severe clinical manifestations. Direct contact, such as hand contact with an infected animal, can result in localized rash only (in this example hand rash).

In animal care settings, close respiratory contact is defined as exposure within 6 feet to an animal suspected of having monkeypox and with respiratory symptoms such as nasal discharge, cough, or conjunctivitis.

It is not known if transmission can occur from contact with the bedding, cages or fomites from ill animals.

The median incubation period following exposure is 12 days. Onset of fever precedes rash by 2 (1-3) days.

Severity of infection can range from mild to life threatening.

4.0 Description of First Aid - Provide an overview of first aid treatment of exposures considering that multiple routes of exposure could occur (needlestick, aerosol, eye, skin and ingestion).

First Aid:

Cleanse exposed area for minimum of 15 minutes - as soon as possible following exposure. Specific first aid based on site of exposure is as follows:

- 1) **Eye or mucus membranes:** Use sterile saline or water to irrigate for 15 minutes, preferably in an eye wash station.
- 2) **Skin:** Scrub with the antibacterial scrub approved for the laboratory for 15 minutes.

5.0 Urgency of Medical Care- Describe how soon medical attention should be sought, i.e. is an ER visit necessary, a visit to University Health Services, or simply schedule a visit with a personal physician.

All exposures, after initial first aide, should be immediately reported to UW-Madison RO or ARO's (Responsible Official or Alternate Responsible Official) and PI. RO/ARO's can be reached at their direct office numbers or through the UW-Madison Police Department at 262-2957 or by dialing 9-1-1. RO/ARO will contact UW Infectious Disease to arrange for appropriate medical attention and notify UHS Occupational Medicine (608-262-5610 or 608-252-0955).

The urgency of medical care depends on the route of exposure and associated traumatic injuries. There is no additional initial treatment for monkeypox virus exposure

6.0 Description of Medical Response- Provide an overview for clinical treatment of exposures to the agent considering that multiple routes of exposure could occur (needlestick, aerosol, eye, skin and ingestion) and that strains of agents will vary and sometimes include antimicrobial resistance.

The most effective control of potential monkeypox infection is **pre-exposure** smallpox vaccination of lab personnel working with monkeypox virus.

If this has not occurred, CDC recommends post-exposure smallpox vaccination optimally within 4 days of the exposure incident. Post-exposure vaccination can be considered up to 14 days post incident.

There is no specific therapeutic treatment, beyond symptomatic control, for mild to moderate monkeypox infection. Management of symptoms and cases would be by UW Infectious Disease. For severe or life threatening complications, CDC should also be contacted for current recommendations.

Laboratory confirmation for cases of monkeypox infection is recommended. Contact Univ Health Services occupational medicine (at 608-262-0955 or 608-265-5610) , UW Infectious Disease , or CDC (877-554-4625) for current laboratory test recommendations.

7.0 Description of Medical Surveillance- Describe the advisability of medical surveillance strategies (in particular baseline and annual serology) for those working with the agent. If doing so would likely improve the identification, diagnosis or treatment of exposures, please indicate so.

There are no recommendations for baseline or annual testing for individuals working with monkeypox.

The most effective control of potential monkeypox infection is **pre-exposure** smallpox vaccination of lab personnel working with monkeypox virus. This vaccine should be repeated every 3 years for continued monkeypox virus work. UW-Madison employees working with monkeypox virus or accessing areas where active research with monkeypox virus is being conducted are required to be vaccinated.

8.0 Considerations for Infection Control-Describe any special precautions required to prevent the further spread of infection. Include precautions for the healthcare, workplace, and home setting.

The period of communicability for HUMANS with monkeypox is from 1 day before onset of rash until up to 21 days after the rash or illness onset ; OR when all of the rash lesions have scabbed over and the scabs fallen off; OR when a negative throat swab PCR confirms that the patient is no longer infectious.

Person to person transmission has occurred with direct contact and by respiratory droplet spread.

The period of communicability for ANIMALS with monkeypox is from 1 day before onset of illness up to 21 days after rash or illness onset: OR when all of the animals rash

lesions have scabbed over, the scabs fallen off, and the animals clinical illness ended.

Isolation precautions for monkeypox infection should continue until all lesions are crusted or for 7 days after onset of fever with mild illness. Required precautions include home isolation and use of a surgical mask when in the presence of others, avoidance of contact with individuals who are immunocompromised or have chronic disease, avoidance of animal contact, and covering skin lesions to the extent possible,

Laboratory employees with exposure to monkeypox virus need not be excluded from work but should undergo daily symptom surveillance including body temperature. Body temperature should be taken twice daily for 21 days following exposure. Symptoms of concern include fever greater than 99.3 F, sore throat, cough or skin rash. Asymptomatic employees can continue routine daily activities but should stay close to home for the duration of the surveillance period.

9.0 Reporting-Describe any public health or federal regulatory reporting requirements. Include the timing and mechanism for reporting.

Public Health: Cases or suspected cases only are reportable to the patient’s local health department either electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS) or by mail or fax using an Acute and Communicable Disease Case Report (F-44151), on an Acute and Communicable Disease Case Report (DPH 4151) or by other means within 72 hours of identification. See [s. HFS 145.04 \(3\) \(b\)](#).

Exposure or potential exposure will be reported to the state health department communicable disease section by the Responsible Official at 608-267-9003(7:45 AM-4:30 PM) or through the 24 hour WI health department clinical emergency contact number 608-258-0099 (after hours). The CDC Division of Select Agents and Toxins will also be notified by the Responsible Official. Specific contacts at the WI State Health Dept are Jim Kazmierczak at 608-266-2154 or Susann Ahrabi-Fard at 608-261-6955.

10.0 References:

11.0 Document Revisions

Revision History		
Revision Number	Date	Description of Revision
Initial Approval	8/24/11	Original
1	12/4/13	Changed to new format; Added RO reporting
2		