Frequently Asked Questions About Monkeypox for the Dialysis Setting

What are the signs and symptoms of monkeypox?
Monkeypox should be considered in patients with a rash or typical prodromal symptoms, including fever, chills, and lymphadenopathy. It is important to inquire about an individual’s close, intimate contact with another individual who has suspected or diagnosed monkeypox or an unidentified rash.

How is monkeypox virus transmitted?
Monkeypox is spread through close, personal, often skin-to-skin contact. This can include, but is not limited to:
- Direct contact with monkeypox rash, scabs, or body fluids from a person with monkeypox.
- Touching objects, fabrics (clothing, bedding, or towels), and surfaces that have been used by someone with monkeypox.
- Contact with respiratory secretions from an infected person.

It’s also possible for people to get monkeypox from infected animals, either by being scratched or bitten by the animal or by preparing or eating meat or using products from an infected animal. The CDC provides additional insight regarding How it Spreads on their website.

Do we need to screen all patients for monkeypox?
Currently, screening is not required. Nevertheless, it is important that dialysis facilities educate their patients about monkeypox, when to seek care and how to communicate with their dialysis provider/facility. The CDC provides useful messages for general audiences are included here Reducing Stigma in Monkeypox Communication and Community Engagement.

Who should be tested for monkeypox?
Testing should be performed on persons for whom monkeypox is suspected based on clinical presentation or epidemiologic criteria. At this point in time, testing for monkeypox cannot be performed until the patient has a rash. More information on when to suspect monkeypox can be found in the Clinician FAQs on the CDC’s website. Dialysis facility staff should know how and where to refer a patient for testing when signs and symptoms of monkeypox are present.
Where in the dialysis facility do we conduct the evaluation of the patient if monkeypox is suspected?

Patient evaluation should be conducted in a private room (for example, an isolation room or examination room) and all precautions, such as hand hygiene and the correct use of PPE should be followed. Following the evaluation, the room MUST be cleaned and disinfected (see discussion on page 3).

How should a patient with active monkeypox be managed in an outpatient dialysis facility?

The individual should be placed in a single-person isolation room. Hepatitis B isolation rooms can be used if: 1) the patient is hepatitis B surface antigen positive or 2) the facility has no patients on their census with hepatitis B infection who would require treatment in the isolation room.

Additional considerations include:

- Negative pressure airflow and special air handling are not necessary unless aerosol-generating procedures are taking place.
- The door to the room should be kept closed (if it is safe to do so).
- Ideally the patient would have a dedicated bathroom, but if one is not available, the bathroom MUST be cleaned and disinfected after the infected patient uses the bathroom. Monkeypox belongs to a group of viruses that is more susceptible to disinfectants than other viruses. While there are no disinfectants registered for use against monkeypox according to the EPA, all products with Emerging Viral Pathogens claims have been tested against viruses that are more difficult to kill than monkeypox. Disinfectants for emerging viral pathogens appears in List Q on the EPA's website. CDC recommendations for environmental infection control are included here.
- Ensure the patient goes directly to their room/chair and any shared surfaces (e.g., hand holds on the scale) are cleaned and disinfected after the infected patient touches the surface(s).
- If the patient is transported outside of their room (for example, upon arrival for dialysis, to the bathroom), they should use well-fitting source control (e.g., medical mask) and have any exposed skin lesions covered with a sheet or gown.

For more information, see Infection Prevention and Control of Monkeypox in Healthcare Settings.

What if an isolation room is not available for dialysis?

Dialysis in an isolation room is the best option, especially when respiratory or systemic symptoms are present. If an isolation room is not available in the patient’s home facility, the facility should check with neighboring facilities and/or consult with their local or state health department to see if an isolation room is available in the area. Hospitalization should be the very last option unless the individual’s condition would otherwise require hospitalization.
While efforts are being made to locate an isolation room, an interim solution could be to dialyze the patient infected with monkeypox on a separate shift at the end of the day. If dialysis must occur when other patients are present, separate the patient with monkeypox from other persons as much as possible. Consider identifying an empty chair at the end of a row. Strategies could include placing screens (if screens are available that can be cleaned and disinfected) around the chair and/or leaving the adjacent chair empty while the person with monkeypox is receiving care. All skin lesions should be covered, and the patient should wear a surgical mask the entire time they are in the facility. Healthcare personnel should wear all recommended PPE and dispose of the PPE appropriately when leaving the patient’s care area; this PPE should NOT be reused.

What personal protective equipment (PPE) should be worn when caring for a patient with monkeypox infection?
Healthcare personnel should wear the following PPE:
- Gown
- Gloves
- NIOSH-approved particulate respirator equipped with N95 filters or higher
- Eye protection (i.e., goggles or a face shield that covers the front and sides of the face).

PPE MUST be removed and properly disposed of when leaving the patient’s care area.

For more information, see Infection Prevention and Control of Monkeypox in Healthcare Settings.

Should patients exposed to monkeypox who have no symptoms be dialyzed in an isolation room?
Patients who have been exposed to monkeypox and have no symptoms do not need to be isolated. Patients are considered contagious once they develop any symptom.

If we are treating a patient with a suspected or confirmed monkeypox infection, can they be in the waiting room with others?
Patients with respiratory or systemic symptoms should be escorted to an isolation room upon arrival at the facility. If an infected person has only skin lesions, the lesions are covered, and the patient wears at least a surgical mask, a brief time in a common area is acceptable.

How should medical waste, including any disposable PPE, be managed?
During the ongoing 2022 multi-national outbreak of West African clade monkeypox, if a clinician or their public health authority determine that a patient does not have known epidemiological risk for the Congo Basin clade of monkeypox virus (e.g., history of travel to the Democratic Republic of the Congo, the Republic of Congo, the Central African Republic, Cameroon, or Gabon in the prior 21 days) it is appropriate to manage the patient’s waste as Regulated Medical Waste. However, if epidemiological risk factors indicate a risk for Congo Basin clade monkeypox virus, waste should be managed as a
Category A infectious substance pending clade confirmation, and while local and state public health authorities are consulted. If there are no risk factors for Congo Basin clade, it is appropriate to manage the patient’s waste as Regulated Medical Waste and follow the Department of Transportation’s guidance for the Transportation of Infectious Substances.

How should the environment be cleaned after caring for a patient infected with monkeypox?
Standard cleaning and disinfection procedures should be performed using an EPA-registered hospital-grade disinfectant with an emerging viral pathogen claim. Products with Emerging Viral Pathogens claims may be found on EPA’s List Q. Follow the manufacturer’s directions for concentration, contact time, and care and handling.

Soiled laundry (e.g., bedding, towels, personal clothing) should be handled in accordance with CDC’s recommended standard practices (PDF-see sec. G, page 113 of 241 pages), avoiding contact with lesion material that may be present on the laundry. Soiled laundry should be gently and promptly contained in an appropriate laundry bag and never be shaken or handled in manner that may disperse infectious material per CDC’s recommendations for Infection Prevention and Control Monkeypox in Healthcare Settings.

Activities such as dry dusting, sweeping, or vacuuming should be avoided. Wet cleaning methods are preferred.

Is any type of special internal disinfection required for dialysis machines used for a patient with monkeypox?
Standard cleaning practices are appropriate. No additional internal disinfection is required.

How long is a patient with monkeypox contagious?
Individuals with monkeypox are considered contagious until the lesion scabs are completely gone, and new, healthy skin is present.

A patient who visited the dialysis facility two days ago has now been diagnosed with monkeypox. The patient had lesions at the time of the visit which were completely covered by the patient’s clothing. Are facility staff considered exposed? Are other patients considered exposed?
Any exposure intervention should be coordinated with your local public health department. The risk definitions are defined by the CDC’s guidance regarding the Monitoring of People Who Have Been Exposed.

What is the treatment for monkeypox?
Most individuals infected with monkeypox have mild disease and recover without medical intervention.

Treatment could be considered for patients at risk for progression to severe disease including:

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- Immunocompromised individuals
- Children, especially younger than 8 years of age
- People with a history or presence of atopic dermatitis, persons with other active exfoliative skin conditions (e.g., eczema, burns, impetigo, varicella zoster virus infection, herpes simplex virus infection, severe acne, severe diaper dermatitis with extensive areas of denuded skin, psoriasis, or Darier disease [keratosis follicularis])
- Pregnant or breastfeeding persons
- People with one or more complications (e.g., secondary bacterial skin infection; gastroenteritis with severe nausea/vomiting, diarrhea, or dehydration; bronchopneumonia; concurrent disease or other comorbidities)
- Lesions involving the eyes, mouth, genitals, or anus

**Treatment options may be found on the CDC website.**
Hospitalization may be necessary for management of severe disease (hemorrhagic disease, confluent lesions, sepsis, encephalitis) or to manage worsening of underlying comorbidities.

**Who should assess the patient to determine the individual is no longer contagious and may be allowed to leave isolation?**
The best course of action is evaluation by a medical provider who is knowledgeable about the monkeypox disease course; this provider can be the patient’s PCP, nephrologist, or an infectious disease specialist depending on the situation and the patient’s plan of care. Patients can be instructed on how to monitor their progress, but it may be difficult for the patient to view all their lesions to determine healing.

**May pregnant employees take care of patients with monkeypox?**
Data regarding monkeypox infection in pregnancy are limited. It is unknown if pregnant people are more susceptible to monkeypox virus or if infection is more severe in pregnancy. **The monkeypox virus can be transmitted to the fetus during pregnancy or to the newborn by close contact during and after birth.** Adverse pregnancy outcomes, including spontaneous pregnancy loss and stillbirth, have been reported in cases of confirmed monkeypox infection during pregnancy, as well as preterm delivery and neonatal monkeypox infection.

Pregnant persons should be counseled about how to protect themselves from communicable diseases through appropriate use of PPE and hand hygiene. Some facilities may choose to not assign pregnant persons to care for patients with known or suspected monkeypox when non-pregnant healthcare providers are available.

**Considerations for Monkeypox in People Who are Pregnant, or Breastfeeding** can be found in the following CDC website.
May immunocompromised employees care for patients with monkeypox?
Immunocompromised persons should be counseled about how to protect themselves from communicable diseases through appropriate use of PPE and hand hygiene. Some facilities may choose to not assign immunocompromised persons to care for patients with known or suspected monkeypox when non-immunocompromised healthcare providers are available.

How should patients exposed to monkeypox be managed?
Patients with monkeypox should be assessed for symptoms for 21 days after last exposure.

**Symptoms** of concern include:
- Fever ≥100.4°F (38°C)
- Chills
- New lymphadenopathy (periauricular, axillary, cervical, or inguinal)
- New skin rash

What do dialysis patients need to know about monkeypox?
Patients should receive education on the clinical presentation of monkeypox, what to do if they have questions or develop symptoms, and when to communicate with their dialysis providers.

What do dialysis center staff need to know about monkeypox?
Staff members should receive education on the clinical presentation of monkeypox, know how to report patients with suspected infection to dialysis clinicians, and recognize when they need to report their own exposures. Dialysis facility staff should know how to refer a patient for testing when signs and symptoms of monkeypox are present.

Can healthcare providers continue to work if symptomatic? When can they return to work?
Healthcare providers may not work while symptomatic with monkeypox. They can return to work when they are asymptomatic and have had resolution of the rash, all scabs have fallen off, and new skin has formed underneath.

Is there guidance for management of pediatric patients exposed or infected with monkeypox?
CDC [Clinical Considerations for Monkeypox in Children and Adolescents](https://www.cdc.gov/monkeypox/pediatric/index.html) provides considerations on clinical management for those under age 18 and is intended to assist in the development of a plan for management of monkeypox exposure, as well as suspected or confirmed diagnosis.