CDC Health Alert Network
Advisory of Monkeypox in a US Citizen Traveler

The likelihood of an outbreak of monkeypox is very unlikely. This post is offered to allow for information & guidance about Monkeypox to be reviewed by those that might encounter a contact/exposed person of the traveler diagnosed with it in Dallas, Texas and be ready to manage it with as little risk as possible to themselves or others.

Over 200 identified contacts, who then traveled to more than 27 destination states, are being monitored by Local Public Health authorities for the appearance of signs or symptoms of Monkeypox. There is also a chance there may have been other contacts with the infectious patient, particularly during his time in the airport, that were not identified, are therefore are not aware of any risk, and are not being monitored. A person from either group might utilize Fire and/or EMS services, should they become ill.

Contacts were identified as those that 1) had seats within 6 ft of the source during the first leg of the trip (Nigeria to Atlanta); 2) used a common lavatory on either the 1st leg, or the 2nd leg from Atlanta to Love Field in Dallas; and airline crew members who served the individual in the cabins or cleaned the lavatories on either plane. The second leg of the trip was determined to not have any seat related exposures due to the less than 3-hour flight. There may also have been inadvertent contact in the Hartsfield Atlanta or Love Field Dallas Airports that is unknown (i.e., in the restrooms). Those passengers may have gone on to any destination.

Sentinel Patient Information:

The infected individual had a two-day (and two plane) travel period, beginning on July 8th from Lagos, Liberia, via Atlanta, and then onto Love Field, Dallas on July 9, 2021. Those identified as having possible exposure to the infected individual are being monitored by public health authorities in their destination states in more than half of the country. The individual was infectious (capable of passing infection onto others) during the time on the two planes and while transiting through the airports and onto to their final destination.

The individual sought help at a Dallas Hospital Emergency Department on the 13th of July and is in isolation at an area hospital. Therein lies the small but valid risk. The plane passengers are readily identified by manifest, and those in the potentially exposed category, are being followed daily, by local Public Health Officials, for signs and symptoms of disease.

Although full PPE for EMS/HCWs in the presence of suspected Monkeypox, or any fever & unidentified rash, includes a gown, gloves, individually-fitted NIOSH approved N95 or better respirator, and eye protection, it is considered likely that the mask provision on all commercial airlines due to COVID, would likely limit the exposure to large respiratory droplet for those sitting near the infected passenger.

Human-to-Human Transmission:

1. Large respiratory droplet is the most common, occurring typically within 6 ft area, for a prolonged period of time (> 3 hours for this virus). This is considered indirect contact.

2. Direct contact with body fluids or material from the lesions

3. Contact with body fluids or lesion discharge through fomites (inanimate objects including clothing, bedding, tables, doorknobs, etc.) that are contaminated with body fluids or lesion material.

Animal-to-Human Transmission also occurs (it was responsible for the start of the 2003 Outbreak in the Upper Midwest) & is a major form of Transmission in endemic areas of Africa.

Disease Progress:

Incubation Period: the time from exposure to infection averages 5-13 days but can extend to 21 days from last exposure. A person is not contagious during this time & likely feels well.

Prodromal Infection: an early set of signs/symptoms; **may be contagious** during all or some of this time. The first symptoms include fatigue, fever, headache, and lymphadenopathy (swollen lymph glands); some will have cough & sore throat. Swollen lymph glands help differentiate between monkeypox and smallpox. Swollen glands may be found submandibular (under the jaw) & in the neck, axillary, and/or groin; they can be localized to one area, regional, or on much of the body & may be bilateral or confined to one side of the body.

Monkeypox Has Several Distinct Phases:

Stage	Appearance	Duration
Enanthem	Sores (lesions) in the mouth & on tongue	
Macules	Flat rash on the skin beginning on face, then arms & legs, and then hands & feet, including palms & soles Spreads to all parts of body in 24 hours from core to distal	1-2 days
Papules	By 3rd day of rash, lesions become raised	1-2 days
Vesicles	By 4th to 5th day of rash, lesions are vesicular (**clear** fluid filled sacs)	1-2 days
Pustules	By 6th to 7th day, lesions are pustular (**opaque** fluid in sacs); sharply raised, typically round and firm to touch (but don't) Lesions will develop a depression in the center After 5-7 days, they will begin to crust	5-7 days
Scabs	By the end of the 2 weeks, the pustules will have changed from crusted to scabbed. After about a week the scabs begin to fall off	7-14 days
Monkeypox Resolved **No Longer Contagious**	**All scabs** have fallen off; **skin is healed;** skin may have pitted scars or be left lighter or darker in tone	Varies

See the following pages for what recommendations EMS should consider when managing a potential monkeypox patient. Always follow your Agency Protocols & Procedures unless instructed differently via Agency Official Channels.

Recommendations EMS Should Consider

A. As described above, everyone should have reviewed the circumstances of the Sentinel Travel patient and be aware of the **Prodromal Signs & Symptoms** and the **Rash Stages**, listed above, as well as the modes of transmission and the following EMS-specific info.

B. As always, those responding to EMS calls, even if not for transport, should have multiple sets of full PPE readily available for **Airborne**, **Contact**, **Respiratory Droplet**, & **Standard** Precautions. Note: most Monkeypox transmission is large respiratory droplet but airborne has also been substantiated and First Responders should err on the cautious side since we often enter the home (which may be full of droplet) with no control over ventilation, cleaning, etc. Then we put the patient in a truck for transport that will be carrying other patients and EMS personnel.

   Monkeypox, like COVID-19, requires:

   1. A **fit tested NIOSH-approved N95 or better Respirator**
   2. An impermeable **jumpsuit or gown**
   3. **Gloves** with a long enough cuff to easily cover (and anchor) the gown cuffs
   4. A **full-face shield** (preferable) or **goggles**. An open face shield or glasses that are not enclosed are not an acceptable substitute.

   Cheat sheets/cards for properly donning & doffing PPE should be available with a minimum of the buddy system for checking PPE before deploying to a patient. Even more preferable, is **a trained observer to the watch donning & doffing process and pause it, if needed**.

C. Minimize those exposed to any prospective patient with known exposure or recent travel (within 21 days) with fever (don't have to take it), swollen glands, mouth sores and/or rash/lesions, to only those needed to manage the patient.

D. In an ideal situation, another 1st Responder (ideally the Driver) can prepare the patient compartment by closing the door between the Cab & Patient Compartment. It is also preferable to either isolate the area where the stretcher will be placed with Visqueen or other flexible barrier, **or** secure unnecessary items behind barriers to avoid contamination. Any materials/equipment in the patient compartment, not secured behind barriers, will likely have to be considered contaminated and discarded as biohazardous waste or decontaminated using proper procedures.

   Follow your Agency's Policies and Procedures for all of "D".

   Prepare the patient compartment and cab to achieve the best ventilation possible for your truck's specific set-up. This information should be available ahead of time and may also be printed on a sheet & kept with important papers in the truck for reference.

E. Have a surgical mask ready to place on the patient (or have them do so) ASAP, if tolerated. In lieu of the mask, a non-rebreather mask with O_2 flowing can be placed on the patient if protocols allow.

F. Ideally, find out if the patient is <u>able to safely walk</u> to the door of the residence/building he is in (note that these patients can be pretty sick). If it is a multiple unit residence or a large building, it is preferable to meet him outside his apt, hotel room, or office. This is to avoid more contact with surfaces or bedding that may be contaminated with body fluids or rash discharge. If the patient cannot safety move himself, then attempt to not come in contact with or minimize contact with surfaces, bedding, clothes, etc. If sheeting him, use a clean sheet, preferably impermeable to move him; another impervious sheet or blanket can be on the stretcher to wrap the patient.

G. Allow only the patient in the transport vehicle (anyone else who has been with the patient is also exposed and may be infectious). If possible, get their names and contact information so you can give that to the hospital & public health for follow-up. It would be best if they could stay in place until someone contacts them.

H. The Driver should discard into a red bag, any PPE he was wearing if he was within 6 ft of the patient or close to the patient's belongings. If the cab and patient compartment have a closed separated door, he can discard everything **but if there is no door or other barrier, he must maintain an N95 respirator or better during the drive**. If he is going to attend the patient again, he must re don full PPE after arriving at the hospital, but before opening the patient doors.

I. Assess the patient and treat, as needed, per Protocol for this type of patient, minimizing respiratory droplet producing procedures and contact with lesions as much as possible. If not already included in Protocol and Procedures, consider calling via phone (preferred so the conversation can be private) or Radio, per protocol, for medical oversight assistance.

J. Give an early warning to the hospital via phone or radio, per protocol, and convey that you have a patient requiring a negative pressure room who is on Airborne & Contact precautions. Ideally, they will meet you with a hospital stretcher to prevent your stretcher, which is considered contaminated, from having to roll into the hospital. As always, refer to your Protocols & Procedures for guidance. Find out if they want you to accompany the patient inside. If so, you'll have to **<u>change</u>** your PPE to avoid contaminating the area on the way to the room. Do this per Policy & Procedure. Upon arrival at the hospital, professionally repeat the warning of a potentially infectious patient, in case those receiving the pt, did not get the message.

K. If the hospital also suspects Monkeypox, all the biohazard waste should be marked appropriately, double bagged, and likely left at the hospital. Few Fire or EMS stations are prepared to store Level A biohazard waste. Non-disposable equipment that was in the patient compartment, and within 6 feet of the patient at any time or in direct contact, should be double bagged in biohazardous bags and secured unless you know or are given instructions on how/where to manage it. The truck should also be disinfected, per Policy, for Level A contamination using an EPA-registered disinfectant

capable of killing Vaccina. Make sure to use the two-step process of cleaning any debris & then disinfect method. Follow the manufacturer's instructions for disinfectant concentration, time on surface, and care during use. Full PPE is required. Use a trained observer to monitor the doffing of PPE or use the buddy system and Doffing Cheat Sheets or Cards. Decon yourselves, per Policy, which should also be on Cheat Sheets/Cards. Take a personal shower ASAP (different from the decon wash/shower) and dress in new clothes upon your return to quarters or as directed.

L. According to your Agency Policy and Procedures, notify your Supervisor, Designated Infection Control Officer, Occupational Health, and/or the Medical Director to assure all notifications, paperwork, & follow-up is completed. Determine if anyone had an unprotected exposure to the patient or breach in PPE. Consult with the Receiving Hospital Infection Control or Occupational Health Staff & the Local Health Dept for assistance with needed follow-up and surveillance for any personnel on the call.

Again, there is very little likelihood that an EMS or Fire crew will be called for a possible monkeypox case, but the same procedures apply to other types of infectious illness such as measles, TB, Ebola, or when there is a patient with an unidentified rash & fever. **Always follow your Agency's Protocol & Procedures unless you seek assistance through your Chain of Command to deviate.**

Although there is a complete Monkeypox Resources & Links Page that will be posted with this article, these three links will get you started. The NETEC link is EMS-specific. The first CDC link outlines specifics of what constitutes exposures to this patient. These resources should be reviewed by at least the Designated Infection Control Officer. Policy and Procedure questions not already in writing can be established with Operations & Medical Direction.

CDC – *Monitoring Persons Exposed to Monkeypox with Specific Definitions & Criteria for the Travel Patient July 2021*:
https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html

NETEC – *EMS Considerations for Monkeypox* – Identify, Isolate, & Inform:
https://netec.org/2021/07/23/monkeypox-ems/

Health Alert Network Notice of Monkeypox Case & Surveillance in USA:
https://emergency.cdc.gov/han/2021/han00446.asp?ACSTrackingID=USCDC_511-DM61767&ACSTrackingLabel=HAN%20446%20-%20General%20Public&deliveryName=USCDC_511-DM61767