

## Monkeypox.....A New Source of Exposure Claims?

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### Introduction

Monkeypox is an infectious disease caused by the Monkeypox virus. The Monkeypox virus is a member of the Variola Virus family, and is somewhat closely related to the Smallpox virus. Its symptoms can be similar to Smallpox, but they are milder than Smallpox. Common symptoms of Monkeypox include: a rash, fever, chills, swollen lymph nodes, exhaustion, muscle aches, headaches, and respiratory symptoms. These symptoms usually develop within three weeks of exposure, and can last between two and four weeks. Monkeypox is primarily spread through contact, and most commonly this is through skin-to-skin contact with a scab and/or rash on an infected individual, or through infected bodily fluids. It can also spread by direct contact by touching contaminated objects that an infected person has touched, and even through contact with respiratory secretions. It can also spread via contact with infected animals.

### Relevance to the Industry

As an infectious disease, Monkeypox has the capability to become a new source of exposure claims in the Workers Compensation realm. Examples of industries where this could happen include healthcare workers treating infected patients, and first responders. This mechanism would be similar to how the Covid-19 pandemic created a new category of exposure injury claims. As with any occupational infectious exposure risk – the incidence of the numbers of exposures should be mitigated as long as high risk employees are following good infection prevention training practices, employing universal precautions, and are wearing appropriate personal protective equipment (PPE).

It is highly unlikely that the current Monkeypox outbreak would ever affect the industry in the same magnitude as COVID-19 though. So far, this outbreak is much smaller. The general fatality rate of Monkeypox generally ranges between 1-14% (which is higher than COVID-19), but in this current outbreak has been almost non-existent. As of 08/09/2022, only 12 deaths have been reported worldwide from the current outbreak. Monkeypox is harder to spread than COVID-19, and is easier to trace and detect since it is mostly spread via the skin rashes/blisters (in contrast to respiratory droplet transmission with COVID-19).

### Current Outbreak

Monkeypox was originally discovered in 1958 when outbreaks occurred in different groups of research monkeys. The first known case of Monkeypox in humans occurred in 1970. Traditionally, outbreaks of cases have been limited to countries in Africa, with cases in other countries generally limited to people that had just visited traditionally affected regions in certain African countries. This all changed in May of 2022, when this current Monkeypox outbreak began. Unlike past outbreaks, this current one is spreading rapidly in countries that do not typically see the disease. As of 08/09/2022, there were over 30,100 confirmed cases, happening in 88 different countries. Over 29,000 of these cases (in 81 different countries) are happening in areas that are not historically known to have Monkeypox. As of 08/09/2022,

the United States has seen over 7,000 cases, and on August 5<sup>th</sup> President Joe Biden declared the current outbreak to be a public health emergency.

### **Treatment/Prevention**

Unlike the COVID-19 outbreak, which was a novel virus that at the time did not have any treatments or vaccines (which have since been developed), Monkeypox is an established disease that has been known for over sixty years. Fortunately, we already have vaccines and medications that can be used to prevent and treat Monkeypox.

#### ***Vaccines***

**Jynneos™** is the only vaccine currently approved by the Food and Drug Administration (FDA) in the United States for Monkeypox prevention. It is approved to treat both Monkeypox as well as the Smallpox virus. It was developed originally for use against potential bioterrorism attacks involving Smallpox. It requires two doses (given 14 days apart) for full effect. While there is not a standard occupational post-exposure prophylaxis (PEP) regimen, the CDC states that vaccines be given within four days of potential exposure to Monkeypox as a “standard PEP regimen”. If the vaccine is given between four and fourteen days after exposure, it may not prevent infection but might still be helpful by reducing severity of symptoms of the disease. Vaccination after the onset of Monkeypox symptoms is not expected to provide any benefit.

“**ACAM2000**” is another vaccine currently FDA-approved in the United States for Smallpox prevention only. But, it is also being used off-label for Monkeypox prevention as well. This is another option that will be vital in this current outbreak. In contrast to the two-dose regimen of Jynneos, ACAM2000 only requires a single dose. Just like Jynneos, it can also be used for PEP after Monkeypox exposure. It should also be given within four days of exposure for PEP.

#### ***Medications***

There are currently no medications approved by the FDA in the United States to treat Monkeypox viral infections. But, other antivirals have off-label uses for Monkeypox, especially those that are used for Smallpox.

**TPOXX (Tecovirimat)** is one such option. It is currently FDA-approved for Smallpox infections. It is available in both 200 mg oral tablets, and 200 mg injection solutions for intravenous use. The dosing regimen for Monkeypox is typically 600 mg every eight or twelve hours (depending on patient’s weight) typically for a fourteen day course (and sometimes as long as ninety days). Its effectiveness for Monkeypox has not been confirmed with clinical trials, although animal trials have shown promise. It is included in the CDC’s Monkeypox Clinical Guidelines as a potential option. This is likely the most studied medication for Monkeypox so far.

Other options are being studied and considered as well. The Treatment Guidelines mention two other medications as potential options. **Vistide™** (Cidofovir) is an antiviral medication currently FDA-approved to treat cytomegalovirus infections, and **Tembexa™** (Brincidofovir) is an antiviral medication currently FDA-approved to treat smallpox infections. Further studies are required, as there is currently no data available on how effective they might be for Monkeypox infections. There is also a **Vaccinia Immune Globulin** intravenous treatment available, but like the others it currently has no data available for use with Monkeypox infections.

## **Availability/Cost**

The previously mentioned vaccines and medications that could possibly be used for Monkeypox do not currently have much price data available. Their average wholesale prices (AWP's) are listed at fractions of a cent. That is because the federal government is currently the entity controlling and distributing supplies of these products through their various controlled access programs. The Monkeypox vaccines are only currently available through government health department vaccine clinics. Patients must meet very strict demographic inclusion criteria to be eligible for the vaccines, meaning they are not available to the general population yet. The medications are only available through an expanded access Investigational New Drug (EA-IND) program. Clinicians and participating pharmacies have to make requests for them through their state health departments. Supplies of these medications are only available through the United States government's strategic national stockpile.

## **CorVel Clinical Team Input:**

The current outbreak of Monkeypox is certainly cause for concern both nationally and globally. While it is doubtful that this outbreak will ever become even fractionally as concerning as the COVID-19 global pandemic has been, it still demands the attention of the international community. It is very likely that this Monkeypox outbreak can and will lead to exposure claims affecting the Worker's Compensation injury claim industry.

## **CorVel Action Plan:**

As all of the vaccines and treatments for Monkeypox are only available (and supplied/paid for) under tightly controlled government access programs, they will not be expected to be processed through our PBM anytime soon. We will continue to monitor the situation, including treatment/vaccine access updates, as well as claim activity. If and when the vaccines become more available, we will explore adding them to our Exposure injury formularies. We will also continue to monitor relevant regulatory activity.

## **References:**

Center for Disease Control (CDC). MonkeyPox Virus. Available at:

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

Center for Disease Control (CDC). Monkeypox Vaccination Strategies. Available at:

<https://www.cdc.gov/poxvirus/monkeypox/interim-considerations/overview.html>

Center for Disease Control (CDC). Monkeypox Treatment Information for Healthcare Professionals.

Available at: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/treatment.html>