Monkeypox Can Be Severe in People Living With HIV

People with advanced immune suppression are at greater risk for severe monkeypox complications and death.

October 28, 2022 By Liz Highleyman

People with advanced immune suppression, including those with untreated HIV, are at greater risk for severe monkeypox complications. A recent Centers for Disease Control and Prevention (CDC) analysis found that more than 80% of adults hospitalized with severe monkeypox had HIV. Most of them were Black men who were not on antiretroviral treatment.

“The occurrence of severe manifestations of monkeypox in patients who were most commonly immunocompromised because of AIDS highlights the importance of engaging all persons with HIV in sustained care and ending the HIV epidemic,” the study authors concluded. “Ensuring equitable access to resources for the diagnosis, treatment, and prevention of HIV and monkeypox remains a vital public health priority.”

The CDC has identified more than 28,000 cases of monkeypox in the United States and around 76,000 cases worldwide, mostly in countries that have not historically reported the disease. The overwhelming majority of cases in the current outbreak have been among gay men. Studies to date show that around 40% of people with monkeypox are living with HIV, but the proportion is substantially higher in some areas.

New monkeypox cases have declined dramatically in the United States and Europe, but the virus has increasingly moved into disadvantaged communities, similar to the trajectory of HIV. More than half of people with monkeypox in the United States are Black and Latino men who have sex with men, but they have not gotten their fair share of vaccines.

Initially, the current outbreak largely affected white gay men, many of whom traveled and attended events and venues where sex takes place. Within this group, most were either HIV-positive and on antiretroviral therapy or HIV-negative and on pre-exposure prophylaxis (PrEP). For example, an analysis of more than 500 cases in 16 countries, published in August, found that 96% of people with HIV were on antiretrovirals, 95% had an undetectable viral load and the median CD4 count was 680. This and other analyses showed that people with well-controlled HIV did not have worse monkeypox outcomes.

But it's a different story for HIV-positive people who are not on antiretroviral treatment and have advanced immune suppression, especially those with AIDS (defined as a CD4 count below 200). Previous reports from Africa found that people with HIV, who presumably were not as likely to be on effective treatment, did have more severe monkeypox and higher mortality.

Now, the same thing is happening in the United States. "Monkeypox and HIV have collided with tragic effects," Jonathan Mermin, MD, MPH, the CDC's incident manager for the monkeypox response, said in a statement.

As described in the October 26 edition of Morbidity and Mortality Weekly Report, the CDC provided clinical consultation for 57 people hospitalized with severe monkeypox between August 10 and October 10. All but three (95%) were men, 68% were Black and the median age was 34 years; 13 (23%) were experiencing homelessness. Overall, 47 (82%) were living with HIV, but only four (9%) were on antiretroviral therapy before their monkeypox diagnosis. Among those with a known CD4 cell measurement, 72% had a count below 50. Two patients (including one who was HIV positive) were undergoing chemotherapy for blood cancers, three were organ transplant recipients and three were pregnant—all conditions that can lead to immune suppression.

All of the hospitalized patients had severe skin manifestations, and 39 (68%) also had severe mucosal lesions. Some had involvement of other organs, including the lungs (21%), eyes (21%) and brain or spinal cord (7%). Most (93%) received oral TPOXX (tecovirimat), but 37 (65%) needed intravenous TPOXX. Half also received vaccinia immune globulin (injected antibodies) and a quarter received IV cidofovir. However, some patients experienced delays of up to four weeks between the time they first sought care and initiation of monkeypox treatment. Seventeen people (30%) required intensive care, and 12 people (21%) died. Monkeypox was considered a cause or contributing factor for five of these deaths; others were still under investigation.

The study authors advised health care providers to test all sexually active people with monkeypox symptoms for HIV, unless they are already known to be HIV positive. For patients with AIDS or other types of severe immune suppression, providers should consider starting monkeypox treatment early—potentially even before receiving test results or before severe manifestations occur. For people with severe disease and those who do not initially respond to TPOXX, providers should consider extending it beyond 14 days and adding cidofovir or antibody therapy. And for HIV-positive people who are not already on it, antiretroviral treatment should be started as soon as possible.

These findings underline the important of reaching disadvantaged groups to offer HIV treatment, other medical care and social services.

"Most patients in this cohort were Black men, and nearly one quarter of cases occurred in persons experiencing homelessness. These findings likely reflect inequities in access to resources for the prevention, early diagnosis and treatment of HIV infection, as well as missed opportunities to engage groups that have been socially or economically marginalized," the study authors wrote. "Public health outreach should strive to engage all persons with HIV infection in care and to

increase access to monkeypox vaccination, diagnosis and treatment. To accomplish these goals, it is critical to leverage existing HIV and sexually transmitted infection program resources and prioritize communities disproportionately affected by HIV."

> See the updated epi curve from @CDCgov that shows continued improvement in the #monkeypox outbreak. Urgent need for 1st and 2nd dose #Vaccinations in people at-risk and attention to the #HIV, #STI, #mentalhealth, and #homeless interacting epidemics (#syndemic) must continue. pic.twitter.com/Htpsk6UrpW
>
> — DrDemetre (@dr_demetre) October 26, 2022

U.S. deputy monkeypox coordinator Demetre Daskalakis, MD, MPH, refers to monkeypox, HIV, sexually transmitted infections (STIs), mental health conditions and homelessness as a "syndemic," or constellation of intersecting epidemics. The CDC recently updated its guidance to grantees, allowing them to use staff and funds earmarked for HIV and STIs to support the monkeypox response.

"Monkeypox alone is a clear example and reminder how epidemics strike unequally," Abraar Karan, MD, MPH, of Stanford Medicine said on Twitter. "[W]hile many think the monkeypox outbreak is over, these cases with low CD4 count and severe social challenges will continue to get sick until we have systems in place to protect their health."

Click here to read the CDC report.

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