Death of Los Angeles County man infected with monkeypox under investigation by health officials

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On Thursday, Los Angeles County, California, health officials confirmed the death of a man recently diagnosed with monkeypox. This brings the number of fatalities with confirmed monkeypox infection to two in the United States. On August 30, Harris County, Texas, reported the first such death in the US in a severely immunocompromised individual. Dr. John Hellerstedt of the Texas Department of State Health Services said at the time that the case was under investigation to determine the role the infection played in his death.

Like Hellerstedt, the Los Angeles County Department of Public Health’s Chief medical officer, Dr. Rita Singhal, was careful not to attribute the cause of death to the monkeypox virus until an autopsy was conducted and its contribution to his demise could be determined.

Singhal said about the death, “We are early in the investigation and do not have additional details available at this time. As soon as details become available, we will share them while maintaining confidentiality and privacy.”

California, with 4,346 monkeypox cases to date, has the highest number of infections among any state in the country, including 14 cases among those 19 and younger. Overall, the US has seen more than 22,000 cases since May, of which 89 confirmed or suspected cases are among children or adolescents. Leading the way in this category is Florida with 27 pediatric cases.

The global case count for non-endemic regions during the 2022 monkeypox outbreak has reached over 64,000, affecting more than 100 countries and territories. While international cases have been trending downward since mid-August, the decline has been steepest across Europe, by 70 percent on a seven-day average over a month. However, cases appear to have steadied recently.

By comparison, the seven-day average in cases in the US declined by only 35 percent and has stabilized at around 500 cases per day. Meanwhile, Latin America, where cases have risen above 10,000 confirmed cases, is seeing a continued climb in the seven-day average. In particular, with close to 6,000 confirmed infections, Brazil remains the epicenter in South America. Besides the confirmed cases, more than 5,900 suspected cases suggest a significant undercounting of such infections.

Including the two deaths in the US, global deaths due to monkeypox in non-endemic countries remain low at 16. However, adding endemic countries to the tally, the global case count rises to over 68,000, and the death count jumps considerably. Most of these deaths have occurred in the Democratic Republic of Congo (DRC).

In their September 8, 2022, weekly updates on the monkeypox outbreak in the African Union, the Africa Centres for Disease Control and Prevention wrote that there had been 695 additional cases (37 confirmed and 658 suspected) from the DRC, Egypt and Nigeria last week. This represents a 50 percent increase from the previous update on August 31. The 17 new monkeypox deaths from last week in Africa occurred in the DRC.

However, the monkeypox epidemic in endemic regions has been ongoing. Since January 2022, the cumulative case count among African Union member states has reached 4,244 (520 confirmed and 3,724 suspected) and 124 deaths. Most of these cases (2,938) and deaths (110) occurred in the DRC, where the deadlier Clade I of the monkeypox virus is endemic. The case fatality ratio (CFR) there stands at 3.7 percent.

Meanwhile, cases in Nigeria have risen 71 percent from the previous week, standing at 136 new cases. Overall, since the New Year, 981 cases and six deaths have been reported from 34 states and the federal capital territory. Egypt said it saw its first case of monkeypox last week. The implication is that without ending the monkeypox pandemic everywhere, it will continue to threaten every other country. The deadlier clade from Central Africa may indeed surface in different regions.

As to the issues surrounding the death of the man infected
with the virus in California, the Los Angeles Public Health press conference was notable for the continued emphasis on the LGBTQ+ community. Los Angeles County has documented over 1,700 infections, the most in any county in the state. Singhal explained that 95 percent of those were among men, and 95 percent identified as LGBTQ+.

With Jynneos smallpox vaccine shortages being somewhat mitigated, Los Angeles County health officials are expanding eligibility criteria, though immunocompromised individuals such as people with HIV continue to be prioritized.

Singhal said that the sooner the vaccines are given after exposure, the greater the potential benefit against developing more severe disease. However, they have administered the vaccine to individuals two weeks from exposure. Supportive care and monitoring are also recommended once someone develops monkeypox disease.

As of last week, Los Angeles County has received 57,000 vials of Jynneos, which equates to 113,000 doses. Close to 43,000 vials and close to 61,700 doses have been administered. Of these, 51,000 (84 percent) have been given a first dose and 10,000 (16 percent) a second dose. However, only one-third of those due for their second dose have received them. Singhal strongly urged those not having received the complete series to do so.

It was also noted that TPOXX (tecovirimat), an antiviral approved in 2018 for use against smallpox, was used predominately in the outpatient setting for patients with painful lesions in sensitive areas. A quarter of the 311 patients they had data from were immunocompromised, and half were HIV positive. These treatments were given to patients who manifested overt monkeypox disease. Additionally, they asked those with monkeypox disease to isolate themselves at home, cover their rashes, and avoid close contact and sharing with others and pets.

The guidance presented is consistent with the US Centers for Disease Control and Prevention's (CDC) recommendations based on their recent study on monkeypox infections in the US among almost 2,000 persons across eight US jurisdictions. They highlighted the fact that there was a high prevalence of HIV and other sexually transmitted infections (STI’s) among those infected with monkeypox.

They wrote, “Among 1,969 persons with monkeypox during May 17 to July 22, 2022, HIV prevalence was 38 percent, and 41 percent had received a diagnosis of one or more other reportable STI’s in the preceding year.” The CDC also noted that those with HIV had a higher rate of hospitalization (8 percent vs. 3 percent).

This is consistent with the current predominance of confirmed monkeypox infection among men who have sex with men (MSM) and sex workers, specifically among persons with recent access to HIV and sexual health services. The CDC wrote that their findings indicate “that reported monkeypox cases are occurring among persons with recent access to HIV and sexual health services. Referral bias might partially explain these findings, as persons with monkeypox signs and symptoms who have established connections with HIV or sexual health providers might be more likely to seek care, and these providers might be more likely to recognize and test for the monkeypox virus. Monkeypox signs and symptoms might have led persons with HIV infection who have not been in HIV care to reengage in care.”

With 1.6 million gay and bisexual men who are HIV positive in the US or who take medications to reduce their risk of HIV, they are undoubtedly the group most threatened by the monkeypox virus. Resources need to be directed to this community to stop the spread of infection. However, the failure to acknowledge the intersection of multiple social networks in these communities means the potential for the monkeypox virus to spread undetected more broadly.

Also, at least 7 million people in the US are immunocompromised, including those with cancer, stem cell transplant and organ transplant, affecting all ages. Children and pregnant women constitute an important group at higher risk of complications if they unknowingly contract monkeypox. Yet, there is no comprehensive and thoughtful public health initiative to eradicate the virus, let alone offer appropriate guidance based on the evolving evidence during the pandemic to protect the entire population.

An original systematic review on the availability, scope and quality of recommendations for the clinical management of monkeypox published in July in the *British Medical Journal* (formerly the *British Medical Journal*) found a “dearth” of high-quality guidelines to assist frontline caregivers.

Many cited sources were of poor quality, without documentation or explicit links to the evidence supporting their recommendations. Guidelines for therapeutics and post-exposure prophylaxis were frequently contradictory. The authors wrote, “We observe[d] a tendency of guidelines being developed rapidly in response to outbreaks, never to be revisited again, but still being available in public domains. Failure to recall out-of-date guidelines as new evidence emerges, poses a risk to patient care.”