Mpox Vaccine Effectiveness & Ongoing Importance of Two-Dose Vaccine

CDC releases studies on the two-dose mpox vaccine. Plus: Global reports show growing cases of a new group of mpox in the Congo.

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In its Morbidity and Mortality Weekly Report, CDC has released the results of studies highlighting the protection offered by the two-dose JYNNEOS mpox vaccine; the importance of completing the two-dose vaccination series for persons at risk for mpox exposure, who have not previously recovered from mpox (including certain gay, bisexual, and other men who have sex with men); and importance of ongoing U.S. preparedness in light of increasing mpox clade I cases in the Democratic Republic of the Congo (DRC). Read the study summaries below.

Monkeypox Virus Infections After 2 Preexposure Doses of JYNNEOS Vaccine — United States, May 2022–May 2024

What is already known about this topic?

Two JYNNEOS vaccine doses prevent mpox; however, infection in fully vaccinated persons can occur.

What is added by this report?

Monkeypox virus infection after receipt of 2 JYNNEOS doses is estimated to have occurred in <1% of fully vaccinated persons and comprises a small proportion of national cases. Among persons who experienced infection after having received a complete 2-dose series and for whom complete data were available, infections have been milder than those among unvaccinated persons. Disparate time intervals from vaccination to infection among fully vaccinated persons suggest that immunity is not waning.

What are the implications for public health practice?

To optimize protection, persons recommended to receive mpox vaccination should complete the 2-dose JYNNEOS vaccination series. No additional vaccine doses are recommended at this time.

Notes from the Field: Clade II Mpox Surveillance Update — United States, October 2023–April 2024

What is already known about this topic?

Since the global mpox outbreak began in 2022, mpox cases have continued to occur in the United States.

What is added by this report?

After the peak of the 2022 mpox outbreak, when approximately 3,000 cases per week were reported, cases declined sharply and remain significantly lower (approximately 59 reported cases per week during October 1, 2023–April 30, 2024). Most new mpox cases occur in unvaccinated persons.

What are the implications for public health practice?

CDC recommends that persons at risk for mpox exposure, who have not previously recovered from mpox (including certain gay, bisexual, and other men who have sex with men) complete the 2-dose JYNNEOS vaccination series.

U.S. Preparedness and Response to Increasing Clade I Mpox Cases in the Democratic Republic of the Congo — United States, 2024

What is already known about this topic?

Compared with clade II monkeypox virus (MPXV), which caused the 2022 global mpox outbreak, clade I MPXV can result in more persons with severe illness and higher mortality.

What is added by this report?

The increasing number of reported suspected clade I mpox cases in the Democratic Republic of the Congo (DRC) poses a global threat for potential spread. No clade I cases have been reported in countries without endemic transmission. CDC is supporting DRC's response and containment efforts and ensuring U.S. preparedness by increasing awareness and surveillance, expanding clade I diagnostic testing capacity, and communicating guidance.

What are the implications for public health practice?

U.S. clinicians and public health practitioners should be alert for possible cases in travelers from DRC and request clade-specific testing. Appropriate medical treatment is critical given the potential for severe illness, and contact tracing and containment strategies, including isolation, behavior modification and vaccination, will be important to prevent spread if any U.S. clade I mpox cases occur.

For more information on mpox, visit CDC's page on mpox.

And see HIV.gov's related post "Help Scientists Find a Safe and Effective Mpox Treatment" to learn about the STOMP trial.

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