



CLINICAL GUIDELINES PROGRAM

NEW YORK STATE DEPARTMENT OF HEALTH AIDS INSTITUTE | HIV · HCV · SUBSTANCE USE · LGBT HEALTH

Mpox Vaccination in Adults With HIV

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RECOMMENDATIONS

Mpox Vaccine

- Clinicians should recommend vaccination against mpox (formerly “monkeypox”) for individuals ≥ 18 years old with HIV who are at high risk of or who have been exposed to mpox within the past 14 days and for whom vaccination may reduce the risk of infection or decrease symptoms if infection has occurred. (A2)
- Clinicians should use only the JYNNEOS (Imvamune or Imvanex) mpox vaccine for individuals with HIV, as it is the only available vaccine that is considered safe for administration in this population. (A*)
- Clinicians should recommend vaccination for adults with HIV, regardless of their CD4 cell count and degree of viral suppression. (A3)

Table: Mpox Vaccine [a]

Trade name	JYNNEOS (also called Imvamune or Imvanex)
Type of vaccine	Live virus that does not replicate efficiently in human cells
Administration	Two subcutaneous injections 4 weeks apart
Indication	Approved by FDA for prevention of smallpox or mpox in people ≥ 18 years old
Adverse reactions	Injection site reactions such as pain, swelling, and redness. Vaccination with JYNNEOS will not cause mpox infection.
Contraindications	Severe allergy to any component of the vaccine (gentamicin, ciprofloxacin, or egg protein)
Immune response	Maximal development of the immune response takes 2 weeks after second dose.
Pregnancy/ breastfeeding	No evidence of reproductive harm from animal data. Pregnancy and breastfeeding are not contraindications for vaccination.
Abbreviation: FDA, U.S. Food and Drug Administration.	
Note:	
a. See the FDA package insert and Centers for Disease Control and Prevention Interim Clinical Considerations for Use of JYNNEOS and ACAM2000 Vaccines During the 2022 U.S. Monkeypox Outbreak .	

Immunization: The Centers for Disease Control and Prevention (CDC) considers people with HIV to be at risk for severe mpox disease and recommends prioritization of those at risk for receipt of the JYNNEOS mpox vaccine [CDC 2022]. Vaccination is used to prevent mpox and as post-exposure prophylaxis; it protects against disease when administered before exposure. If administered after exposure, the vaccine may prevent development or decrease the severity of mpox disease. See CDC [Interim Clinical Considerations for Use of JYNNEOS and ACAM2000 Vaccines During the 2022 U.S. Monkeypox Outbreak](#).

Two vaccines against mpox are currently approved by the U.S. Food and Drug Administration: JYNNEOS (Imvamune or Imvanex) and ACAM2000. Only JYNNEOS is safe for people with HIV. The ACAM2000 vaccine is contraindicated in adults with HIV and their household contacts.

JYNNEOS contains live vaccinia virus, but the virus does not replicate in humans. JYNNEOS is considered safe to use in adults with HIV regardless of viral load or CD4 cell count. No data are available on the effectiveness of available mpox vaccines in this current outbreak.

The safety and immunogenicity of the JYNNEOS vaccine have been evaluated in adults with HIV; however, the immunogenicity is unknown in individuals who are not virally suppressed or who have with CD4 counts ≤ 200 cells/mm³. Vaccine efficacy may be lower in patients with low CD4 cell counts. However, given the risk of severe illness in immunosuppressed individuals, vaccination is recommended regardless of CD4 cell count and degree of viral suppression.

Vaccine dosing: The CDC recommends the mpox vaccine be given within 4 days of exposure to prevent disease. If given 4 to 14 days after exposure, vaccination may not prevent disease but may reduce symptoms [CDC 2022]. Peak immunogenicity is achieved 2 weeks after the second JYNNEOS dose [Rao, et al. 2022].

→ KEY POINTS

- JYNNEOS (Imvamune or Imvanex) is the only mpox vaccination safe for adults with HIV.
- Care should be taken to avoid language and behavior that marginalizes and stigmatizes communities at risk.

Presentation: A high index of suspicion is required because the clinical presentation of mpox disease can vary from a few scattered papules and mild constitutional symptoms to severe illness. Symptoms of mpox may include fever, headache, muscle aches, backache, swollen lymph nodes, moderate to severe pain, exhaustion, and rash that may include painful oral, anal, or genital lesions.

Mortality: Studies of mpox in remote, medically underserved areas of Central Africa have reported mortality of 11% in unvaccinated individuals [Durski, et al. 2018]. People with advanced HIV or who are not virally suppressed may be at risk of severe disease. To date, no deaths have been reported in the United States during the current outbreak.

Transmission: Although many of those affected in the current global outbreaks are men who have sex with men, the virus can be acquired by anyone who has been in close contact with someone with mpox. The virus that causes mpox is transmitted via the following:

- Direct skin-to-skin contact with an infectious rash, scabs, or body fluids
- Exposure to respiratory secretions during prolonged face-to-face contact or intimate physical contact, such as kissing, cuddling, or sex
- Touching objects or fabrics (e.g., clothing or linens) that have been in contact with the rash or body fluids of someone with mpox
- Being scratched or bitten by an infected animal

References

CDC. Interim clinical considerations for use of JYNNEOS and ACAM2000 vaccines during the 2022 U.S. monkeypox outbreak. 2022 Oct 19. <https://www.cdc.gov/poxvirus/monkeypox/considerations-for-monkeypox-vaccination.html> [accessed 2022 Oct 25]

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