

Case Presentation: Mpox Clade 1b

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Patient information

- 35 year-old male with **HIV** presents to the ED with a **painful rash and fever**.
- Four days prior, he had observed nodular penile lesions, initially pruritic but progressing to painful vesicles and ulcerations.
- Yesterday he developed fevers and similar lesions to his face, trunk, and extremities. He reports oral lesions with pain.
- He had recently returned from **Central Africa (Rwanda)** 9 days prior where he endorses unprotected sexual contact with another male the day before departing back to the US.
- Exam is notable for fever, bilateral inguinal and axillary lymphadenopathy, and multiple discrete pustules and vesicles across the face, trunk, arms, oropharynx, and penis. Lesions on the trunk have begun to **coalesce** with surrounding **warmth and erythema**. No ocular lesions are identified. He is able to tolerate PO.
- Tests for HSV, syphilis, gonorrhea, and chlamydia are negative. A swab of the penile lesion returns **positive** for orthopoxvirus. Subsequent genetic analysis identifies **Mpox Clade 1b**.

Patient information (continued)

- The patient has **HIV** and reports intermittent compliance with HIV medication. His last CD4 count is **154** cells/mm³.
- He lives in an apartment with 1 roommate who is currently asymptomatic.
- His last sexual contact was 10 days ago while in Rwanda.



Vaccination History

- The patient is up-to-date on routine childhood vaccinations, including Varicella-Zoster vaccine
- The patient had not received the JYNNEOS Mpox vaccine



Follow-Up

- The patient is admitted to a single-patient airborne isolation room
 - PPE includes gowns, gloves, eye protection, and an N95 respirator.
- Oral tecovirimat is initiated in addition to supportive care and pain control.
 - Brincidofovir, Vaccinia Immune Globulin, and Cidofovir are considered but held pending evaluation of response to tecovirimat
- HIV medications are continued (bictegravir / emtricitabine / tenofovir alafenamide)
- Vancomycin is initiated for secondary cellulitis.
- Public health was notified and performed contact tracing for all close contacts, including household contacts.
- By hospital day 3, mpox lesions and secondary cellulitis have shown improvement

Key Takeaways

- Mpox Clade I has been associated with higher rates of severe illness and increased transmissibility compared to Clade II; however, clinical management (including infection control measures and treatment) are similar for Clade I and Clade II
- Mpox Clade I should be considered in anyone with Mpox symptoms and recent (≤ 21 days) travel to Central or Eastern Africa
 - Notify public health and perform clade-specific testing in any orthopox-positive patient with recent travel to areas where Clade I Mpox is spreading
- The 2-dose JYNNEOS vaccine should be recommended for adults traveling to an area where Clade I is spreading and who anticipates participating in high-risk sexual practices



References

Recent Case Reports of Clade I Mpox

- de Jong R, Schauer J, Kossow A, Scharkus S, Jurke A. **Response of the German public health service to the first imported mpox clade Ib case in Germany, October 2024.** Euro Surveill. 2024 Nov;29(48):2400743. doi: 10.2807/1560-7917.ES.2024.29.28.2400743. PMID: 39611210; PMCID: PMC11605798.
- Shete AM, Chenayil S, Sahay RR, Sindhu CB, Yadav S, Gawande P, Patil DY, Kumar A, Mohandas S, Yadav PD. **Genomic analysis confirmed the importation of first mPox Clade Ib case in Kerala, India from Dubai, UAE.** J Infect. 2024 Dec;89(6):106342. doi: 10.1016/j.jinf.2024.106342. Epub 2024 Nov 4. PMID: 39505069.
- Treutiger CJ, Filén F, Rehn M, Aarum J, Jacks A, Gisslén M, Sturegård E, Karlberg ML, Karlsson Lindsjö O, Sonden K. **First case of mpox with monkeypox virus clade Ib outside Africa in a returning traveller, Sweden, August 2024: public health measures.** Euro Surveill. 2024 Nov;29(48):2400740. doi: 10.2807/1560-7917.ES.2024.29.48.2400740. PMID: 39611206; PMCID: PMC11605805.

Guidance on Clinical Management

- The Center for Disease Control and Prevention. <https://www.cdc.gov/mpox/hcp/clinical-care/index.html>
- Rao AK, Schrodtt CA, Minhaj FS, et al. **Interim Clinical Treatment Considerations for Severe Manifestations of Mpox — United States, February 2023.** MMWR Morb Mortal Wkly Rep 2023;72:232–243. DOI: <http://dx.doi.org/10.15585/mmwr.mm7209a4>
- Maredia H, Sartori-Valinotti JC, Ranganath N, Tosh PK, O'Horo JC, Shah AS. **Supportive Care Management Recommendations for Mucocutaneous Manifestations of Monkeypox Infection.** Mayo Clin Proc. 2023 Jun;98(6):828-832. doi: 10.1016/j.mayocp.2023.01.019. Epub 2023 Apr 29. PMID: 37125977; PMCID: PMC10148669.

Guidance on Home Isolation

- The Center for Disease Control and Prevention. <https://www.cdc.gov/mpox/hcp/infection-control/at-home.html>