Mpox (MONKEYPOX)

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SANTA BARBARA COUNTY PUBLIC HEALTH DEPARTMENT

Clinical Presentation

- The MPox virus is a member of the Orthopoxvirus family (Smallpox). Endemic in few West and Central African countries, most likely through infected rodent bites
- Transmitted through close skin lesion to skin contact **or** prolonged face to face contact via respiratory droplets **or** contaminated materials such as bedding

MPox is NOT spread through:

- **Casual brief conversations**
- **Walking by someone with monkeypox, like in a grocery store**

- Incubation period average 7-14 days (non-contagious during this period)
- Flu-like symptoms (fever, headache, muscle ache), fatigue, and lymphadenopathy
- Rash typically develops after the fever; can last 2-4 weeks

Local Epidemiology

- Confirmed Cases as of August 12, 2022: 5
- Suspect Cases Evaluated: 24
- Contacts to Confirmed Cases Evaluated: 40
- Vaccinations Administered: 35

California MPox Cases as of August 9, 2022

1733 confirmed/probable cases

+598 increase since last report (8/2)

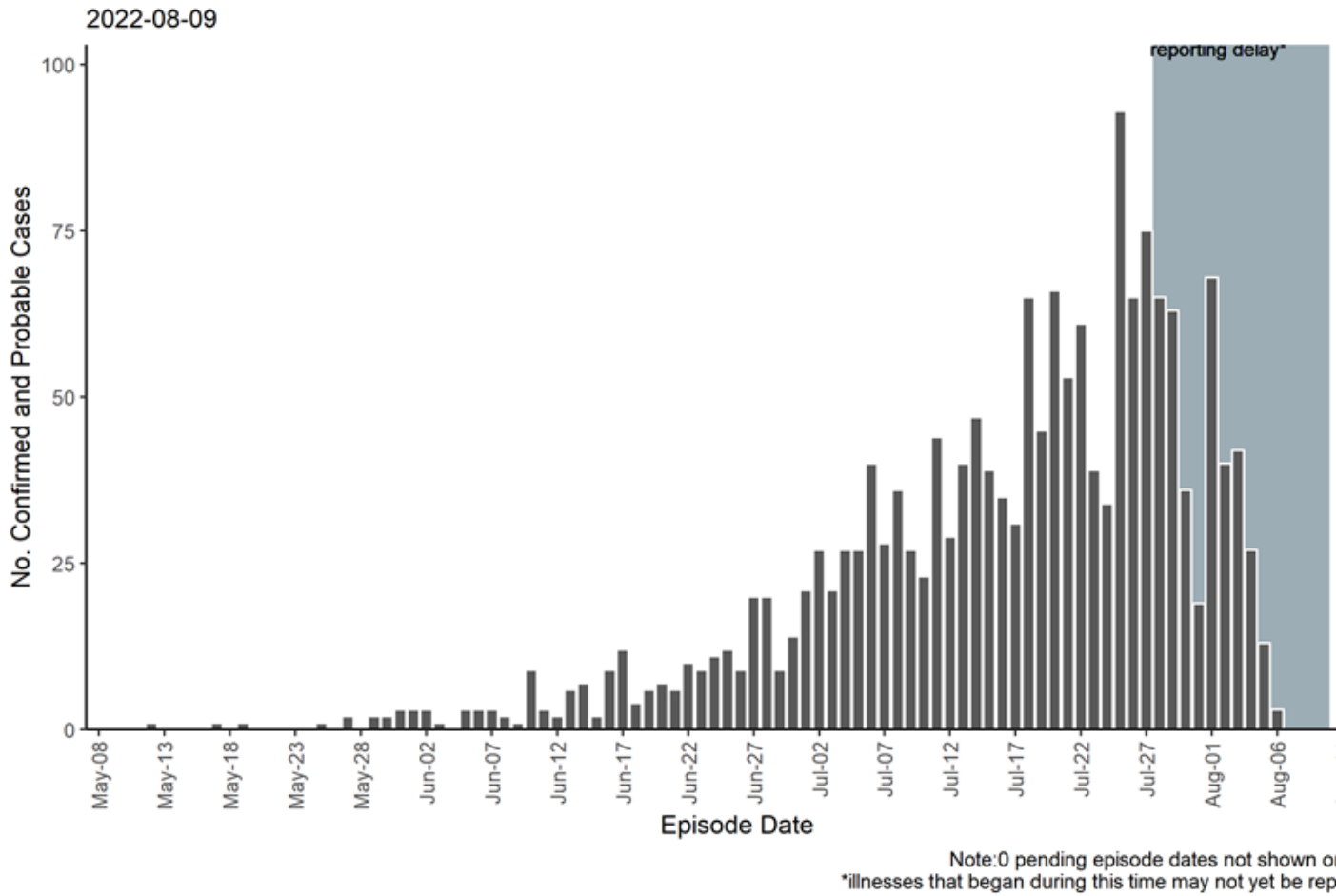
30 local health jurisdictions

+ 2 since last report (8/2)

36 hospitalizations

+ 22 since last report (8/2)

No deaths



California Department of Public Health

Risks and Precautions

- The risk to the general population is very low
- **MPox is much less contagious than COVID-19**
- This virus is spread by prolonged skin to skin contact or via droplets during close face to face contact (kissing, cuddling)
- Avoid intimate contacts with persons who have skin lesions
- Limit the number of intimate partners
- Disclose to partners if you experience any symptoms or have skin lesion(s)

Treatment for severe cases

Tecovirimat (TPOXX)- Expanded Access/Investigational Use Only:

- Priority: Severe or at-risk for severe MPox disease
- 10 courses (oral) available for use in Santa Barbara County

Vaccination

Jynneos Vaccine for Prevention of disease:

- 220 regular doses available for high risk groups and for post exposure prophylaxis of contacts
- FDA granted EUA on August 9, 2022 for use of 1/5 of a regular dose given intradermally
  - Which means 1,100 available doses based on EUA

◦ Vaccine is being distributed to infectious disease clinics and other entities to protect the most at-risk population

Outreach & Vaccination

- MPX Community Town Hall (8/17) with Pacific Pride Foundation
  - Including Dr Ansorg, Dr. Fenzi, Dr. Fitzgibbons among others as panelists

- Special vaccination events by PHD in cooperation with PPF, Planned Parenthood are being coordinated for North and South County

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Thank You

References

Monkeypox. (2022, June 30). Centers for Disease Control and Prevention. www.cdc.gov/poxvirus/monkeyvirus/index.html

Monkeypox. (2022, July 15). California Department of Public Health. www.cdph.ca.gov/Programs/CID/DCDC/Pages/Monkeypox.aspx

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Monkeypox. (2022, May 19). World Health Organization. www.who.int/news-room/fact-sheets/detail/monkeypox

EUA for intradermal use of smaller dose of Jynneos scientific background

and BN. The development of the immune response to JYNNEOS over time following subcutaneous and intradermal administration was nearly identical, and the log_2 transformed peak titers obtained following intradermal administration were non-inferior to those obtained following subcutaneous administration (Table 4).

Table 4. Comparison of log_2 transformed peak titers following SC and ID vaccine administration

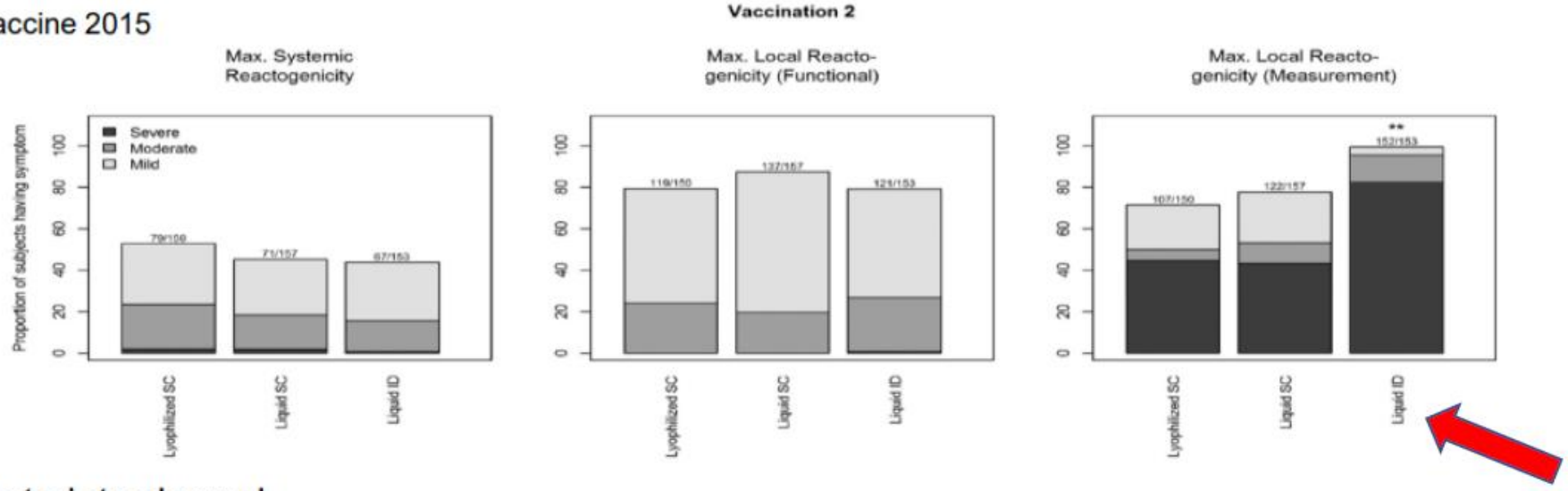
Assay	SC peak titer	ID peak titer	Difference	97.5% CI
SLU PRNT	8.37	8.36	0.005	0.43, 0.44
BN PRNT	5.63	5.90	-0.27	-0.77, 0.23
SLU ELISA	9.66	9.52	0.14	-0.21, 0.49
BN ELISA	9.59	9.57	0.02	-0.31, 0.35

CI, confidence interval

2015 study: Comparison of lyophilized versus liquid modified vaccinia Ankara (MVA) formulations and subcutaneous versus **intradermal routes** of administration in healthy vaccinia-naïve subjects

Study visit day	Group		
	Lyophilized SC1x10^8 N=145 GMT [95% CI]	Liquid SC 1x10^8 N=149 GMT [95% CI]	Liquid ID 2x10^7 N=146 GMT [95% CI]
Day 0	7.5 [,]	7.7 [7.4, 8.0]	7.7 [7.4, 7.9]
Day 14	10.9 [9.9, 12.0]	10.0 [9.0, 11.1]	10.3 [9.3, 11.3]
Day 28	10.8 [9.9, 11.9]	9.6 [8.7, 10.6]	10.8 [9.9, 11.9]
Day 42	77.6 [62.3, 96.7]	45.2 [36.4, 56.2]	54.4 [43.7, 67.8]
Peak post vaccination 2	87.8 [71.2, 108.3]	**49.5 [40.0, 61.3]**	**59.6 [48.1, 74.0]**

Frey et al, Vaccine 2015



Downside to intradermal
- not as easy to administer (though is done for Tuberculin skin test)
- will have increased erythema/induration

https://www.sciencedirect.com/science/article/pii/S0264410X15008762
https://cdn.who.int/media/docs/default-source/blue-print/john-beigel_randomized-evidence_who-monkeypox-vaccine-research_2aug2022.pdf