Introduction on the Clinical Presentation, Diagnosis, Prevention and Treatment of Human MPOX Virus

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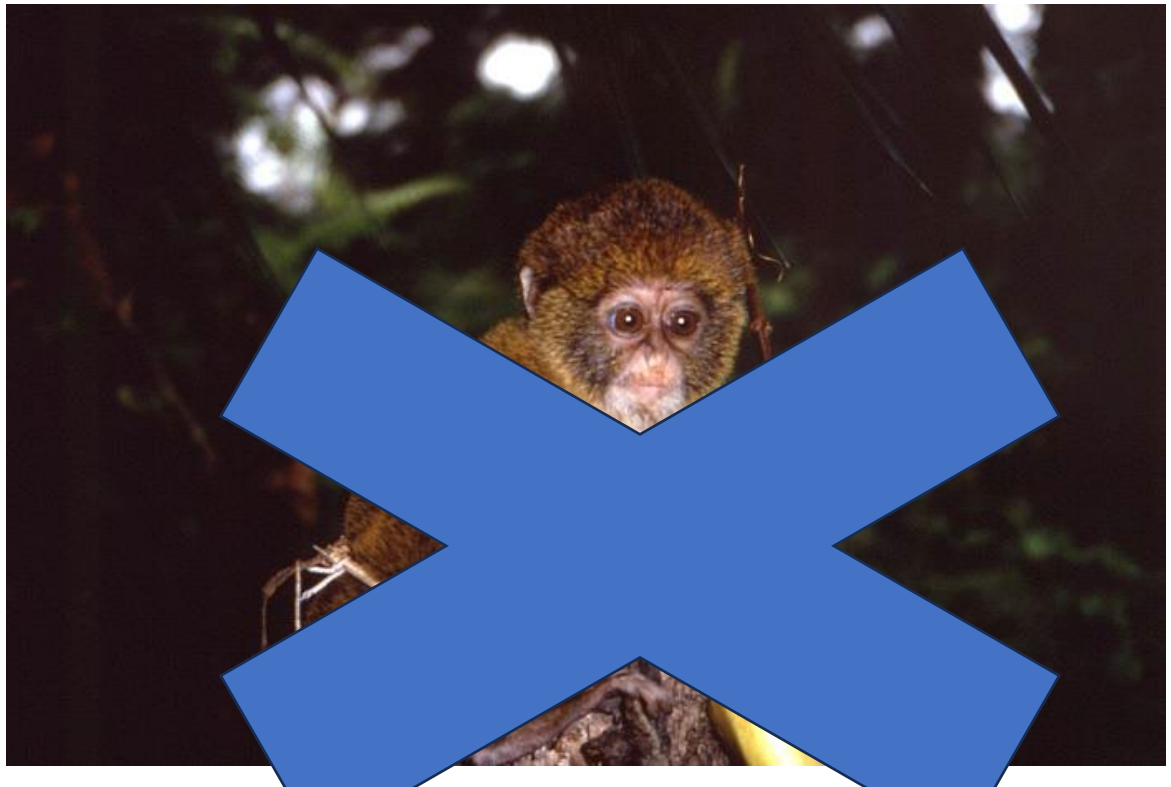
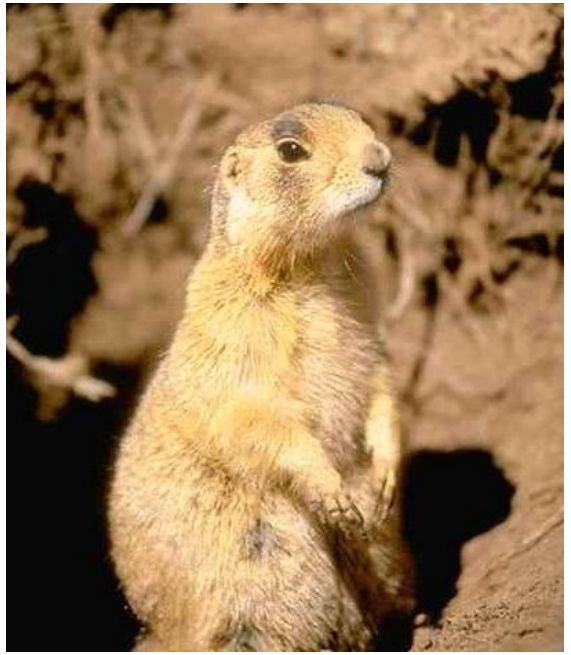


Disclosures:

No disclosures

Objectives

1. **Discuss the clinical presentation of Human MPOX Virus**
2. **Review modalities for the diagnosis of Human MPOX Virus**
3. **Review prevention strategies, as vaccination, for MPOX Virus**
4. **Discuss treatment options for MOX Virus**

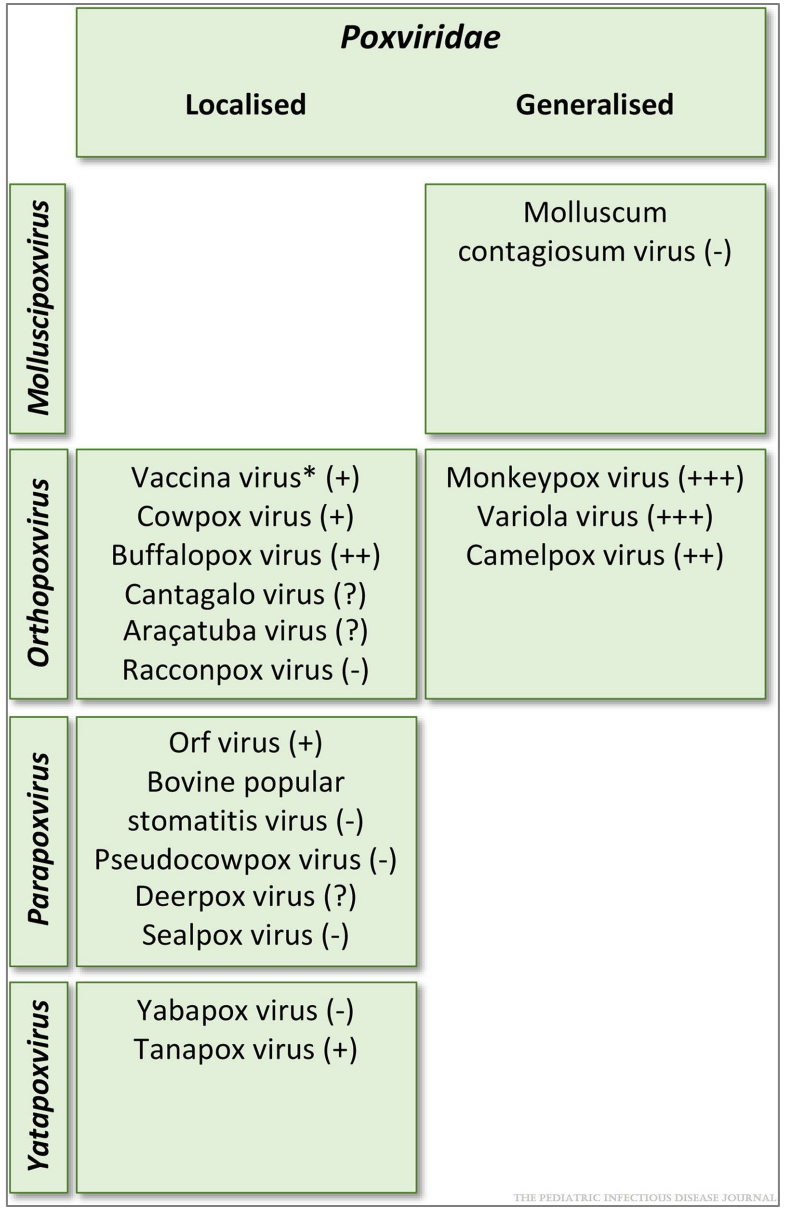


Prairie dog. Courtesy of Centers for Disease Control and Prevention

General Concepts of Human Mpox Virus (HMPXV)

- Family of the *Poxviridae,* Genus *Orthopoxvirus*
- Classification has changed:
  - WHO using roman numerals:
    - Clade I: Former Congo Basin (Central Africa): Mortality up to 10%
    - Clade II: Former West African Clade
      - IIa
      - IIb (Variant circulating in the 2022 global outbreak)
        - *Prior to 2022, cases in the U.S were mainly due to contact with animals*

Figure 1.



Monkeypox—What Pediatricians Need to Know

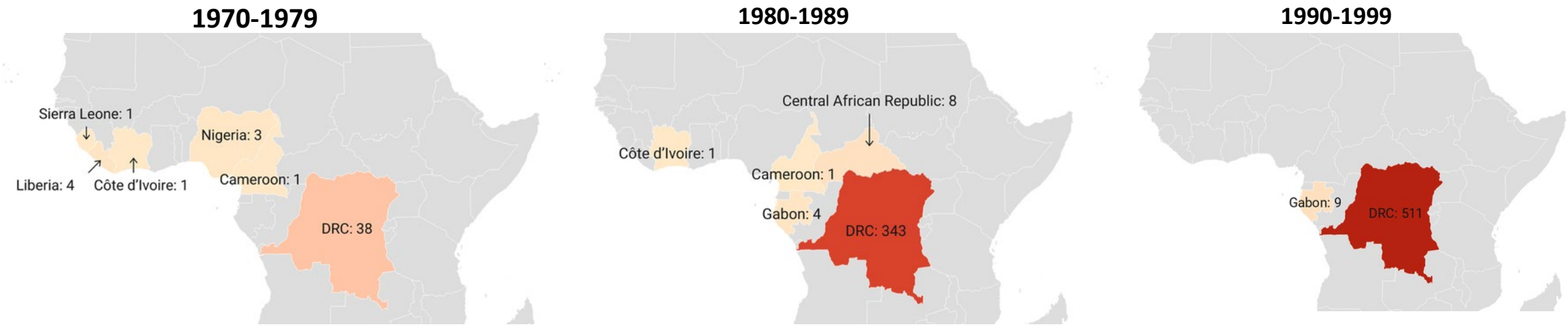
Zimmermann, Petra; Curtis, Nigel. The Pediatric Infectious Disease Journal : November 03, 2022doi: 10.1097/INF.0000000000003720

Poxviridae which have been isolated from humans divided by generalized or localized skin lesions (severity of systemic symptoms in brackets)

Historical Perspective: West and Central Africa

First isolated in 1958 from a primate

- 1970 First Human Case (central and West Africa)
- Since 1970s: Increasing annually in DRC and West Africa (Viral zoonosis)
- Mortality **Severity in children>adults**
  - Central Africa clade 1 (≈ 11%) : High reports of human-to-human transmisision
  - West African clade 2a (≈4%): Mild Illness with limited human-to-human transmission



Bunge EM, Hoet B, Chen L, Lienert F, Weidenthaler H, et al. (2022) The changing epidemiology of human monkeypox—A potential threat? A systematic review. PLOS Neglected Tropical Diseases 16(2): e0010141. https://doi.org/10.1371/journal.pntd.0010141
https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0010141

Historical Perspective: 2000-2009

Bunge EM, Hoet B, Chen L, Lienert F, Weidenthaler H, et al. (2022) The changing epidemiology of human monkeypox—A potential threat? A systematic review. PLOS Neglected Tropical Diseases 16(2): e0010141. https://doi.org/10.1371/journal.pntd.0010141
https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0010141

Historical Perspective: 2010-2019

Bunge EM, Hoet B, Chen L, Lienert F, Weidenthaler H, et al. (2022) The changing epidemiology of human monkeypox—A potential threat? A systematic review. PLOS Neglected Tropical Diseases 16(2): e0010141. https://doi.org/10.1371/journal.pntd.0010141
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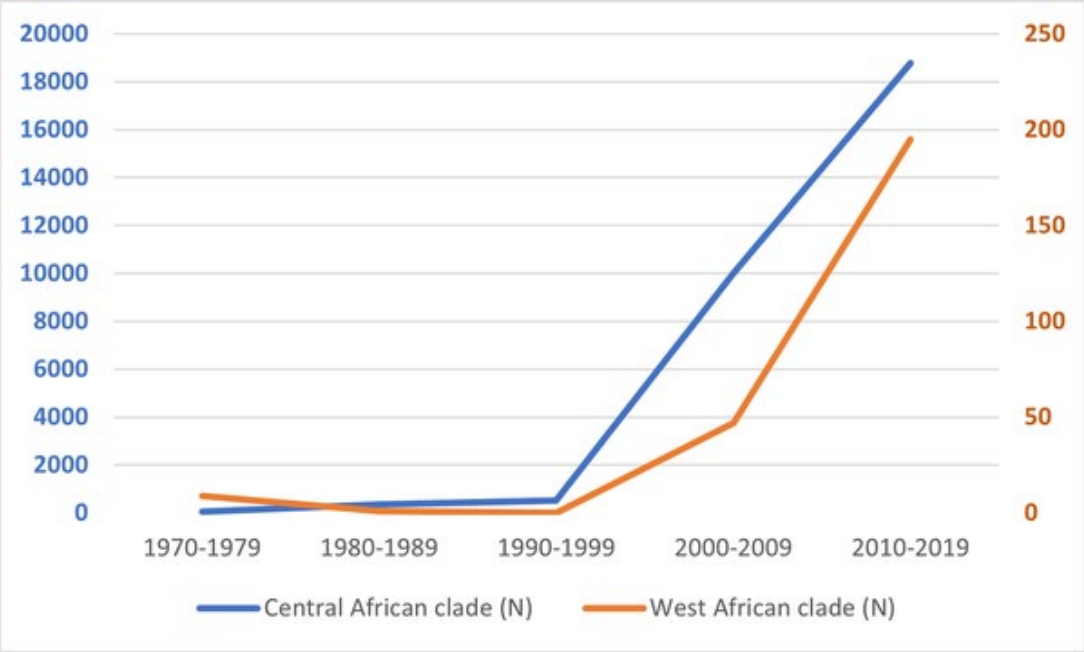


Decade	Central African Clade (N)	West African Clade (N)	Total Cases
1970–1979	38	9	47
1980–1989	355	1	356
1990–1999	520	0	520
2000–2009	92 confirmed 10,027 suspected[2]	47	139 10,027
2009–2019	85 confirmed 18,788 suspected[2]	195	280 18,788

[1] The five cases from Cameroon are not included in this table, as clade was not reported in any of the articles and WHO reported that Cameroon is the only country in which both clades have been detected [12].

[2] Suspected cases are from the Democratic Republic of the Congo, as number of suspected cases rather than confirmed cases were primarily reported. Suspected cases for other countries are not reported since testing of suspected cases was generally undertaken.

https://doi.org/10.1371/journal.pntd.0010141.t002

- https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0010141

2022-2023 Outbreak, Epidemiology: Global Map & Case Count

Legend

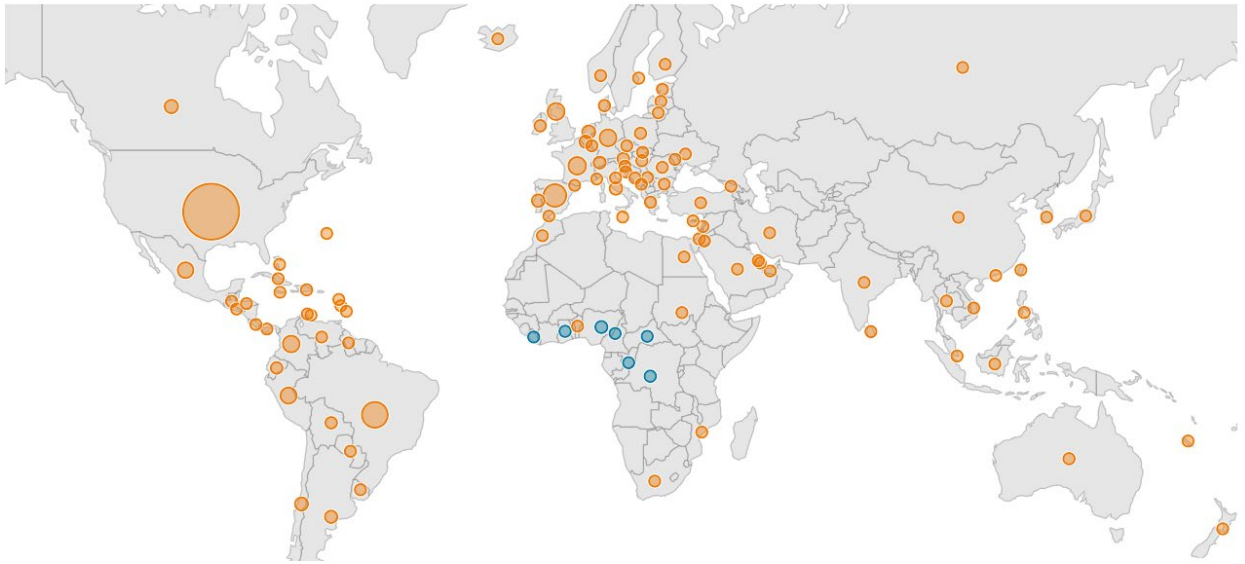
- Has not historically reported mpox
- Has historically reported mpox

Confirmed Cases

99,518	95,196	4,322
Total Cases	in locations that have not historically reported mpox	in locations that have historically reported mpox

Locations with cases

122	115	7
Total	Has not historically reported mpox	Has historically reported mpox



https://www.cdc.gov/poxvirus/monkeypox/response/2022/index.html

Ongoing 2022 Global Outbreak Cases and Data

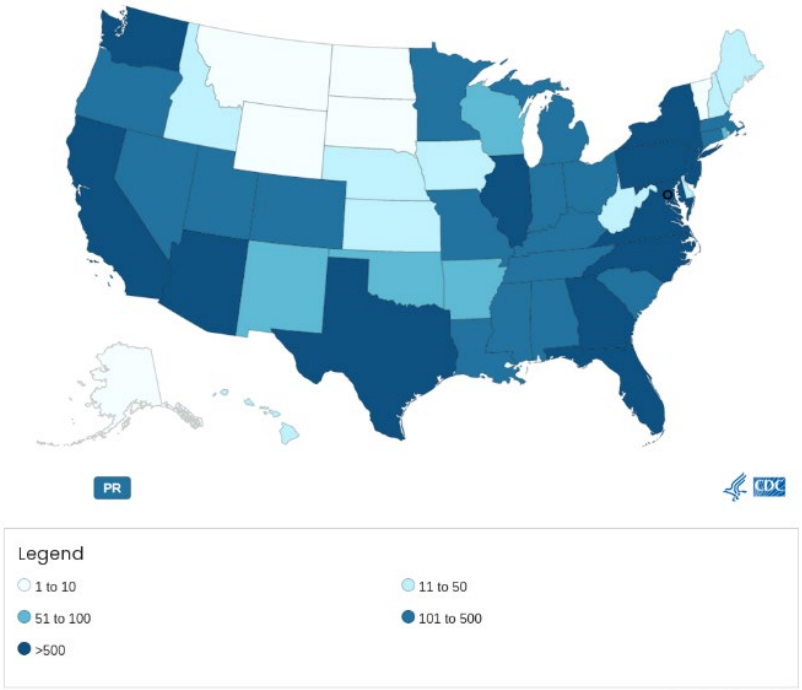
Print

- As of January 10, 2024, the data on this page are no longer being updated. Low-level transmission of the mpox clade II subtype is occurring in the U.S. **There has not been a marked change in weekly or monthly national case counts during the last 6 months.** Small clusters are managed by local and state health authorities. Mpox weekly case counts are posted at Weekly Statistics from the National Notifiable Diseases Surveillance System (NNDSS). To understand case counts during 2024, look at different reporting weeks for 2024, rather than comparing to the "Year to Date 2023" column.
    - The majority of U.S. cases continue to be in people who are not vaccinated or who have only received one dose of JYNNEOS. Two doses of JYNNEOS are recommended to provide maximum protection.

- As of May 1, 2024, U.S. case trends data will be updated the first week of each month. Case counts include those who tested positive for either mpox virus or orthopoxvirus as described in the case definition.

Ongoing 2022 Global Outbreak Cases and Data | CDC Archive

Epidemiology of 2022 Outbreak: USA



32,063 cases (as of 1/10/24)

- 58 deaths
- U.S. South was the region with the highest case counts

- Notable population disparities:
  - People living with HIV (PLWH):
    - 0.4% of population; 38% of mpox cases; 94% of deaths
  - Black (Non-Hispanic) individuals:
    - 12.1% of population; 33% of mpox cases; 86% of deaths

https://www.cdc.gov/poxvirus/monkeypox/response/2022/index.html

Epidemiology: USA

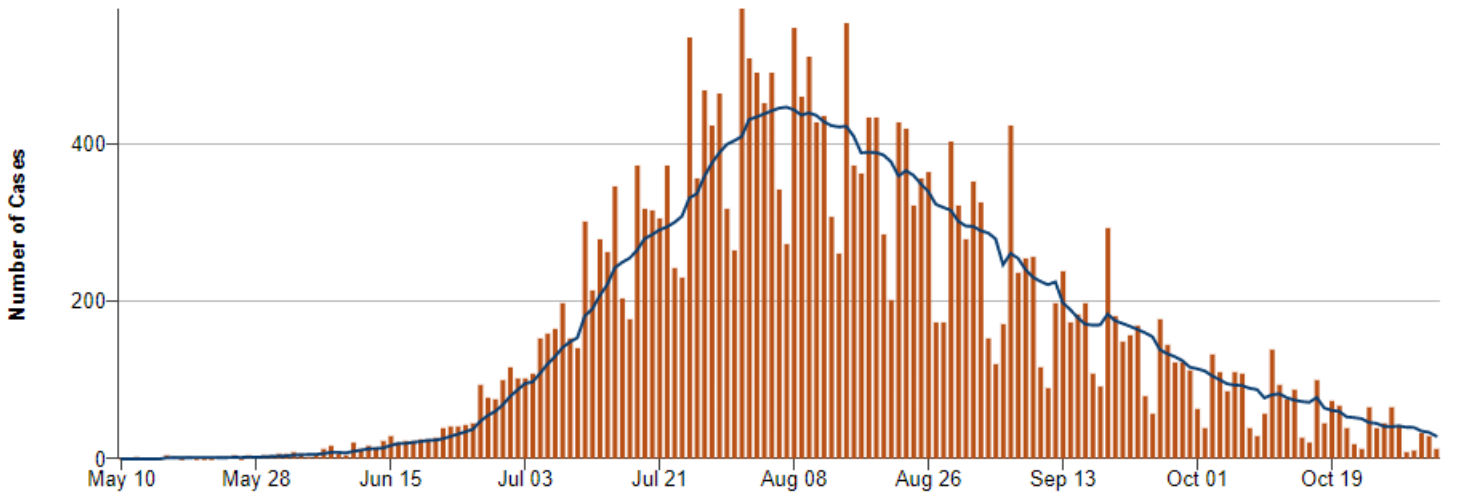
U.S. Monkeypox Case Trends Reported to CDC

Data as Reported to CDC as of 02 Nov 2022 2:00 PM EDT

Español | Print

Trends of monkeypox cases reported to CDC since May 17, 2022, the start of the response to the current outbreak in the United States. Data include cases with reporting date.*

Daily Monkeypox Cases Reported* and 7 Day Daily Average



https://www.cdc.gov/poxvirus/monkeypox/response/2022/index.html

Epidemiology: Louisiana

CASES OF MPOX

Total Louisiana Infections

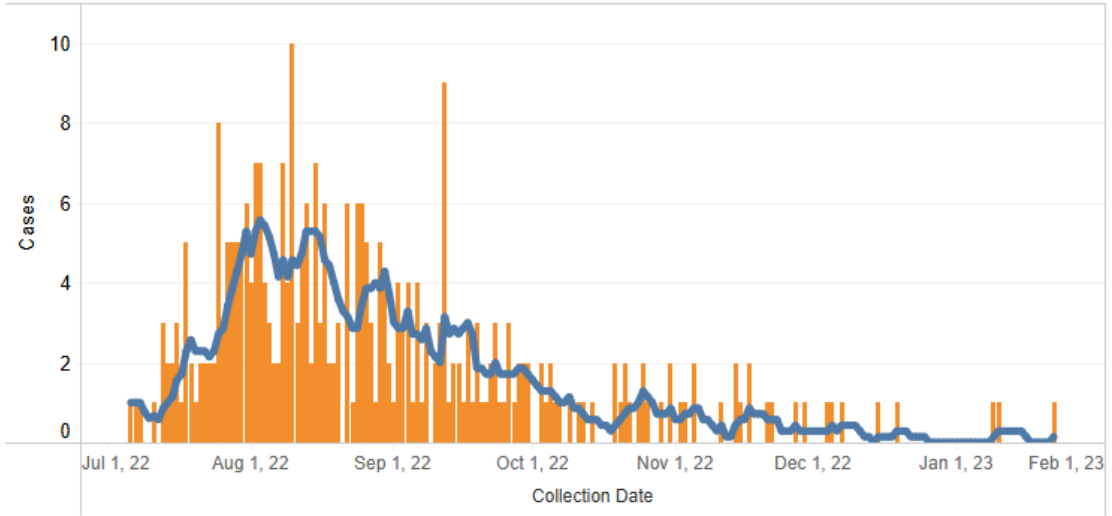
309

New Infections

0

From 2/13/2023 to 2/19/2023

LDH Region	
Under Investigation	--
1 - Southeast	203
2 - Capital Region	38
3 - South Central	18
4 - Acadiana	12
5 - Southwest	--
6 - Central	--
7 - Northwest	12
8 - Northeast	11
9 - Northshore	13



Cases reported through 2/19/2023

MPOX VACCINATIONS

People Initiating Vaccinations*

9,448

People Completing Vaccinations*

5,586

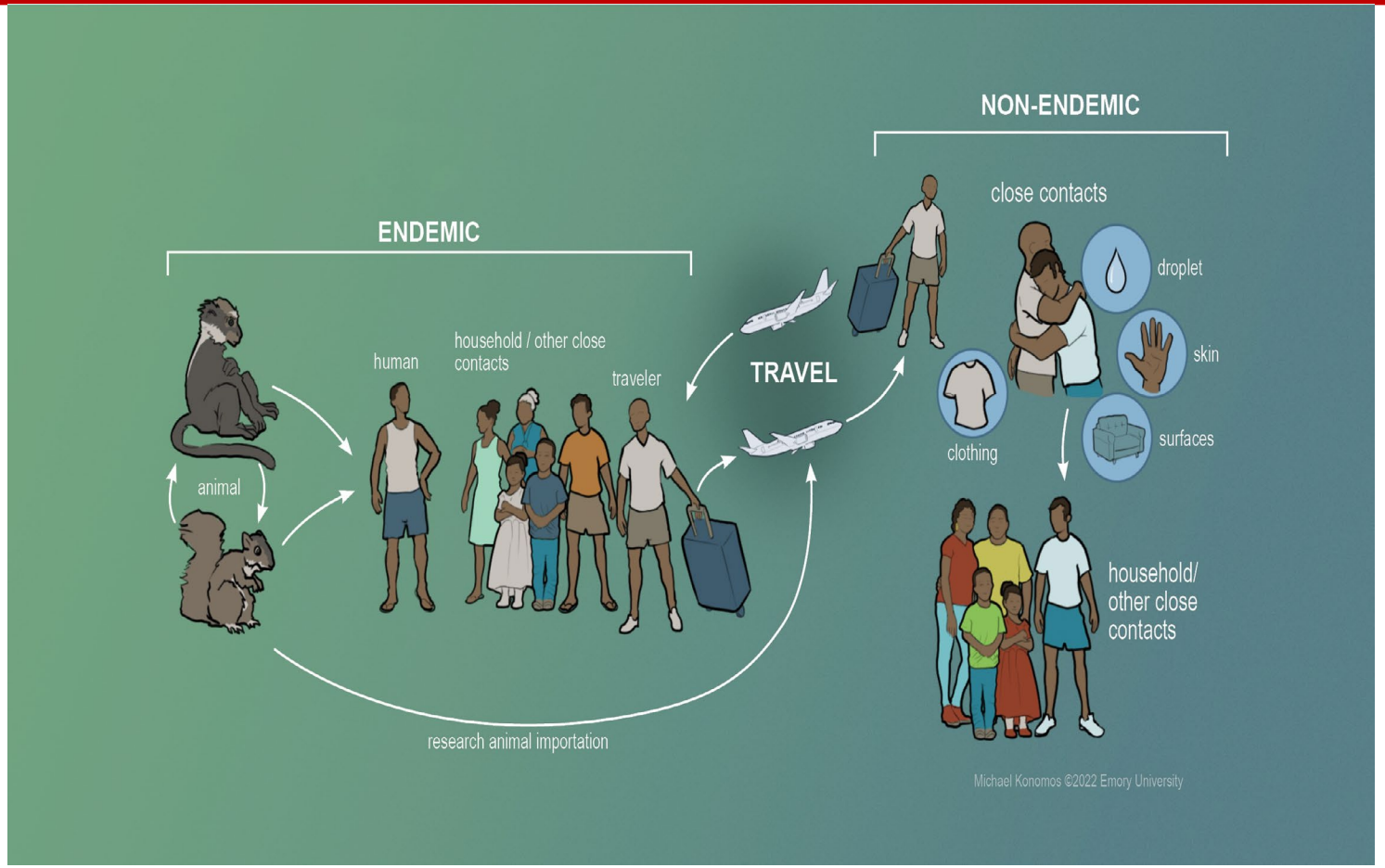
Recipients by Region

1 - Southeast	5,653
2 - Capital Region	733
3 - South Central	341
4 - Acadiana	412
5 - Southwest	100
6 - Central	128
7 - Northwest	276
8 - Northeast	144
9 - Northshore	388
Out of State	927
Unknown	346

Mpox Information | Louisiana Department of Health

Transmission:

- Person-Person:
  - Direct contact with an infectious rash, scabs, or body fluids
  - Respiratory secretions during prolonged, face-to face contact, or during intimate physical contact
  - Clothing or linens
  - Mother to child transmission
- Unknown:
  - Semen or vaginal fluids



Open Forum Infect Dis, Volume 9, Issue 7, July 2022, ofac310, https://doi.org/10.1093/ofid/ofac310

Duration of infectiousness:

From initiation of symptoms until the rash has fully healed and new layer of skin is formed (2-4 weeks).

Changing Landscape of Classic MPOX to Current Outbreak

Characteristics	Classic Monkeypox	2022 Outbreak
Zoonotic Transmission	Yes	No
Transmission • Close skin-to-skin • Respiratory secretions • Fomites	 Yes Yes Yes	 Yes, Yes, Yes Yes Yes
Person-to-Person Spread	Occurred but not as well defined	Extensive in MSM
Co-infections	Yes (Varicella)	Yes: STDs
Differentials	Varicella	Extensive*

Classical MPOX

Start as papules and progresses to pustules/Vesicle→pox like lesion

Face→Spreading to the body→palms, soles

- (Disseminated viremia)

https://www.nejm.org/doi/full/10.1056/NEJMc060792

Differences in 2022 outbreak clinical presentation compared to endemic MPOX:

- Less prodromal symptoms
  - Less fevers, chills, lymphadenopathy, myalgias
  - Rash generally more mild
    - Fewer lesions
    - More localized
      - ■ Rash may be localized to only skin around the anorectum, genitals, or mouth/ lips (sites of sexual contact)
    - More common mucosal involvement of rectum, urethra, and/or oropharynx
    - Frequent concomitant chlamydia, syphilis, gonorrhea, and/or HIV diagnoses

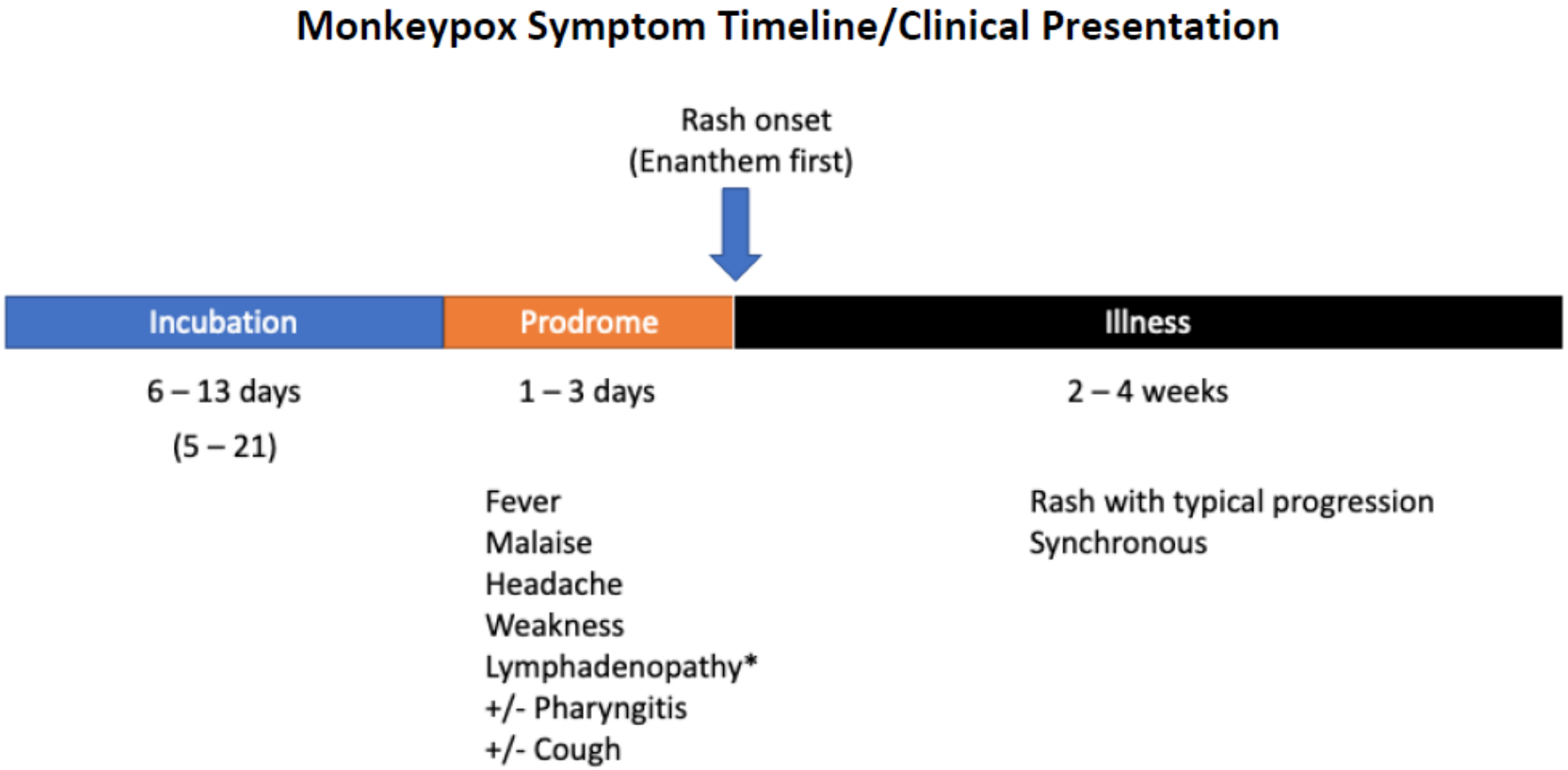
https://www.cdc.gov/poxvirus/monkeypox/clinicians/case-definition.html

CDC 2022 Case Definition

- Suspect, probable, and confirmed
  - Suspect:
    - New characteristic rash or meets one epidemiological criteria (exposure within 21 days) and has a high clinical suspicion
  - Probable:
    - No suspicion of other recent *Orthopoxvirus* exposure **and** demonstrates one of the following:
      - *Orthopoxvirus* DNA by polymerase chain reaction of a clinical specimen **OR**
      - Orthopoxvirus using immunohistochemical or electron microscopy testing methods **OR**
      - Demonstration of detectable levels of anti-orthopoxvirus IgM ab during the period of 4 to 56 days after rash onset
  - Confirmed:
    - Demonstration of viral DNA by PCR or Next generation sequencing of a clinical specimen **or** isolation of the virus in culture from a clinical specimen

https://www.cdc.gov/poxvirus/monkeypox/clinicians/case-definition.html

Clinical presentation



Clinical presentation

Images of individual monkeypox lesions

a) Early vesticle, 3mm diameter

b) Small pustule, 2mm diameter

c) Umbilicated pustule, 3-4mm diameter

d) Ulcerated lesion 5mm diameter

e) Crusting of mature lesions

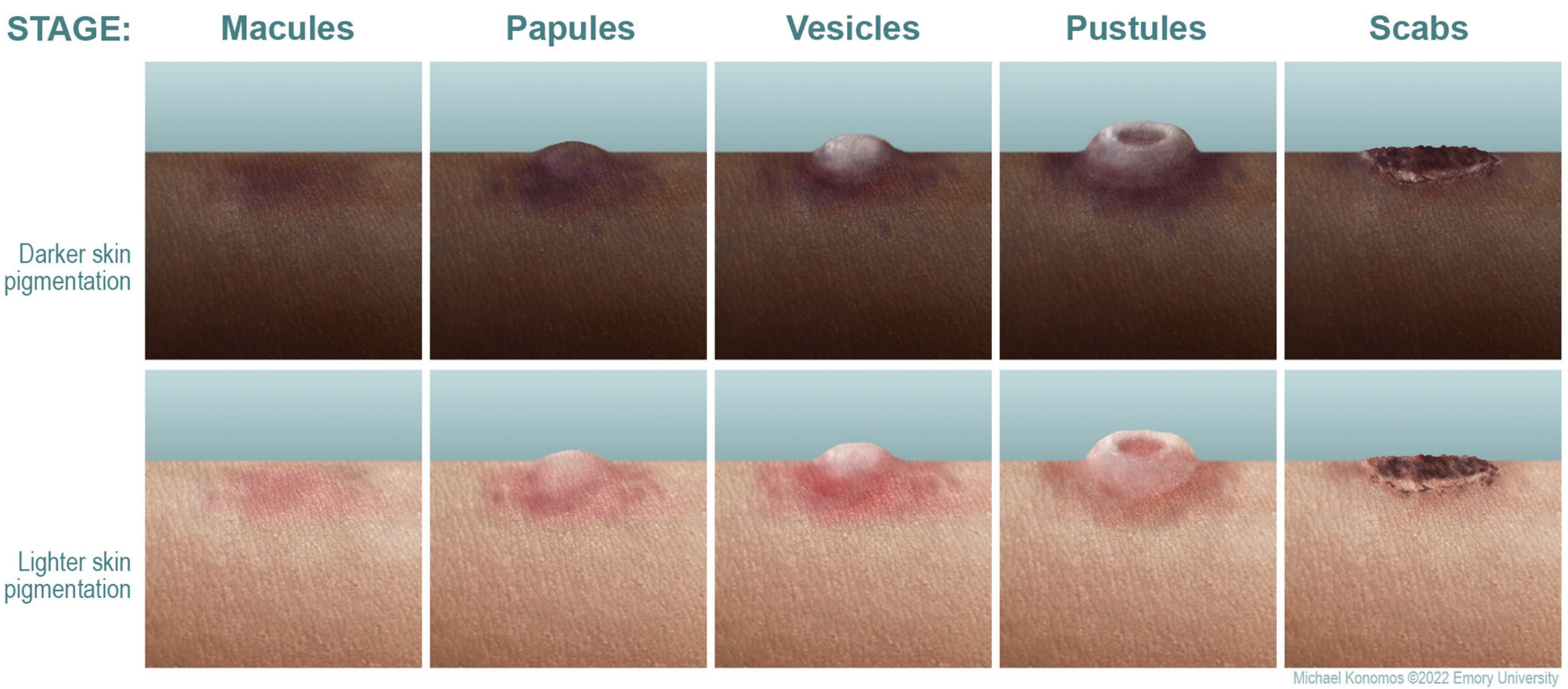
f) Partially removed scab

https://www.gov.uk/guidance/monkeypox

Clinical presentation

www.thelancet.com/infection **Vol 22 August 2022**
https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00228-6/fulltext

Rash Progression



Clinicians should be aware of how lesions may present on the spectrum of skin pigmentation.

MPOX Rash: The 6 P's for 2022 outbreak

- Morphology: **P**apular → **P**ustular
- Location: **P**eri-anal (often with Proctitis)
  Penis
  Pharynx
  Periphery (limbs > torso)

Borrowed from Emory, Echo program

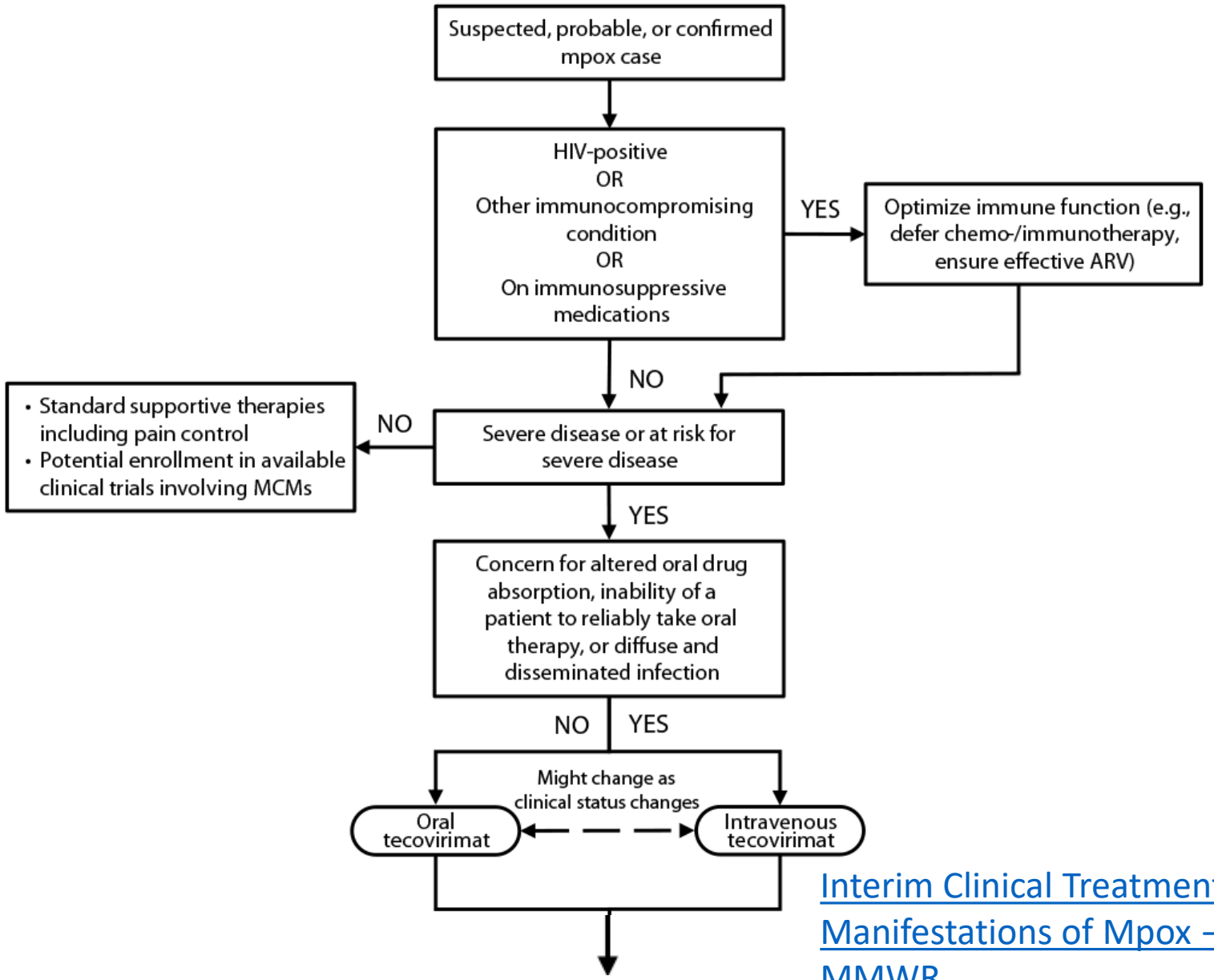
Differential: Lesions

Disease	Images		Comments
Herpes simplex			Very painful polycyclic lesions that evolve to crust, usually in people with a history of herpes.
Primary or secondary syphilis		 © Portal del Sur	**Primary:** firm, painless chancre with a clean base. **Secondary:** roseola or disseminated papules that affect the palms and the soles of the feet.
Chickenpox		 © Wikimedia/Noj Han	Starts on the upper back as asynchronous papules that evolve into vesicles and scabs.
Impetigo			Meliceric (yellowish) crusts, sometimes with blisters, caused by bacterial infection.
Hand-mouth-foot disease		 © O. Sued	Although it is common in childhood, it can occur in adults. Caused by various enteroviruses. Fever, and lesions on the mucosa, mouth, palms, and buttocks.

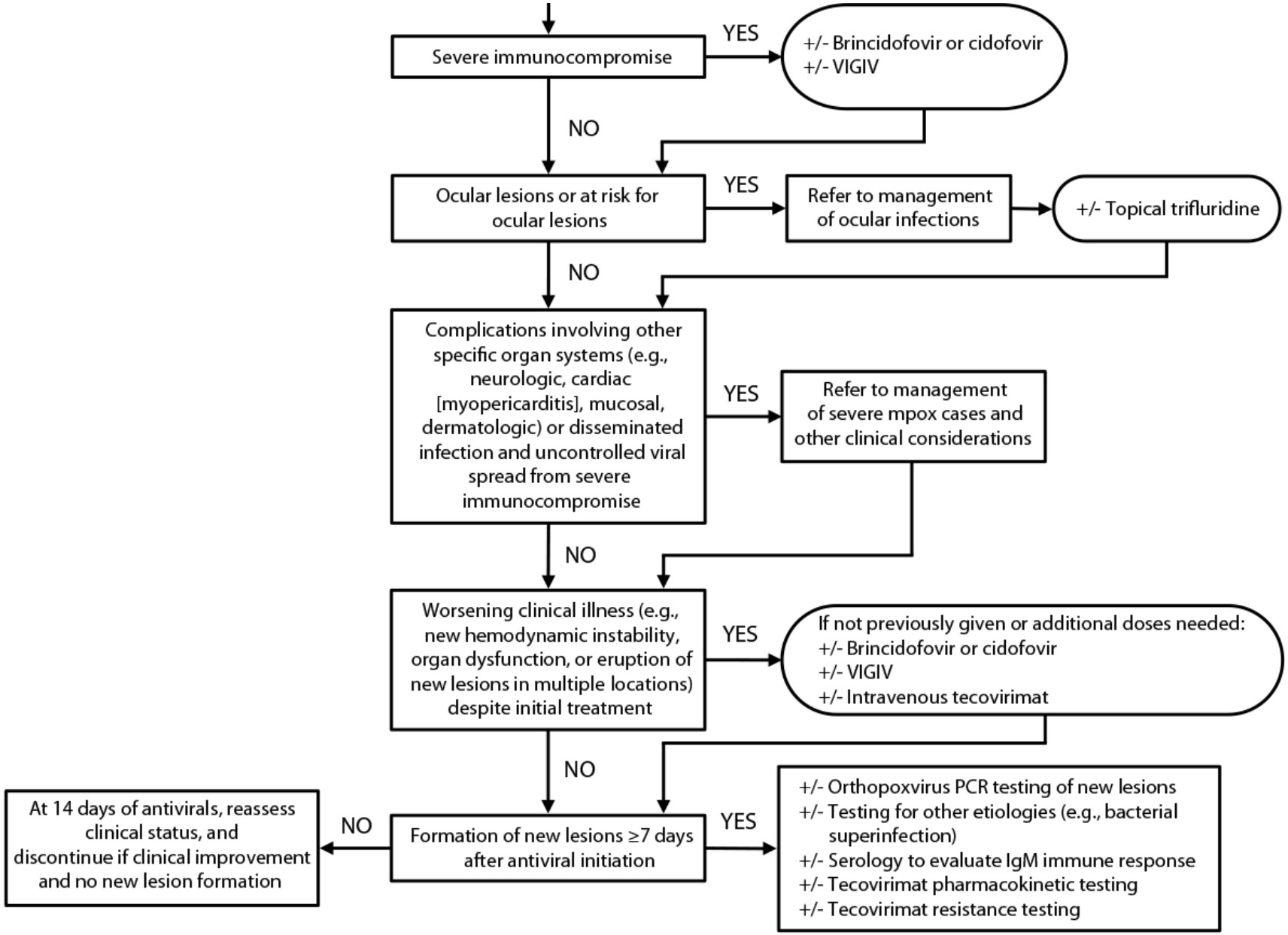
PAHO, Guidance on Clinical Suspicion and Differential Diagnosis of Monkeypox, June 2022
https://iris.paho.org/handle/10665.2/56218

Courtesy of the Federation of Spanish Medical Scientific Associations. Diagnóstico diferencial de las lesiones cutáneas de viruela del mono. Madrid: FACME; 2022. Available from: https://seorl.net/wp-content/uploads/2022/06/01.06.2022-DIAGNOSTICO-DIFERENCIAL-LESIONES-CUTANEAS-.pdf

FIGURE. Approach to treatment[*,†,§] of patients with severe[¶] or at risk[**] for severe manifestations of mpox[††] — United States, February 2023[§§]



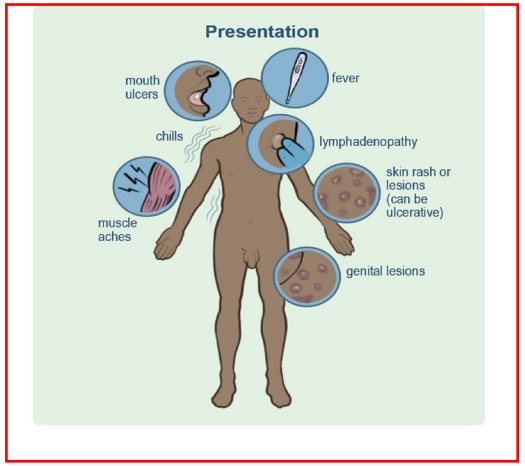
[Interim Clinical Treatment Considerations for Severe Manifestations of Mpox — United States, February 2023 | MMWR]

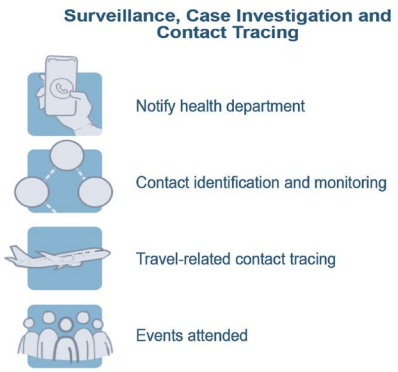


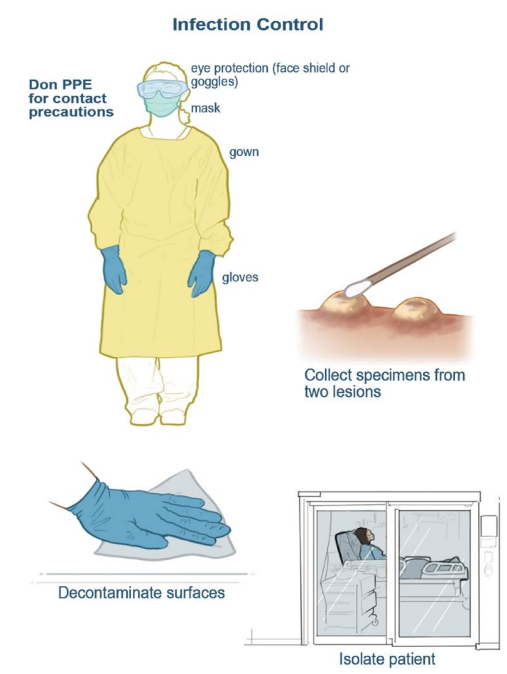
ons for Severe Manifestations of Mpox — United States, February 2023 | MMWR

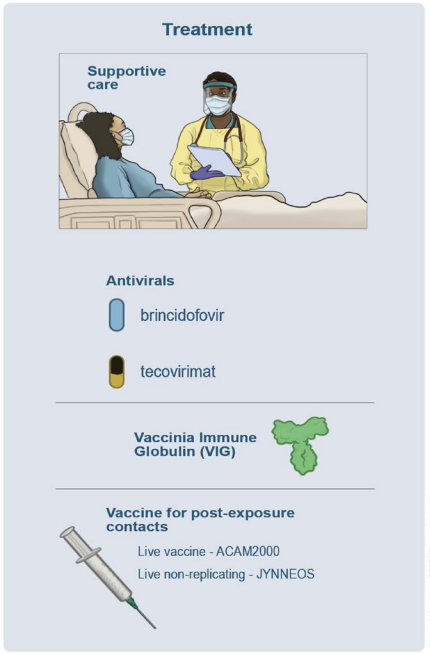
Clinical Protocols and Infection Control

Sites of Infection









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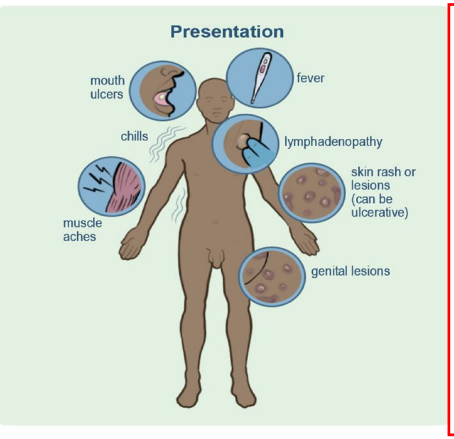
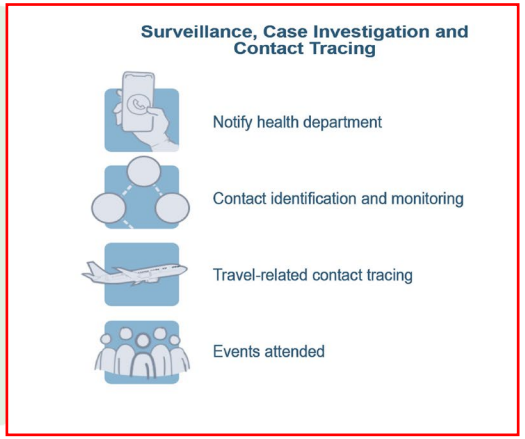
Clinical Protocols and Infection Control

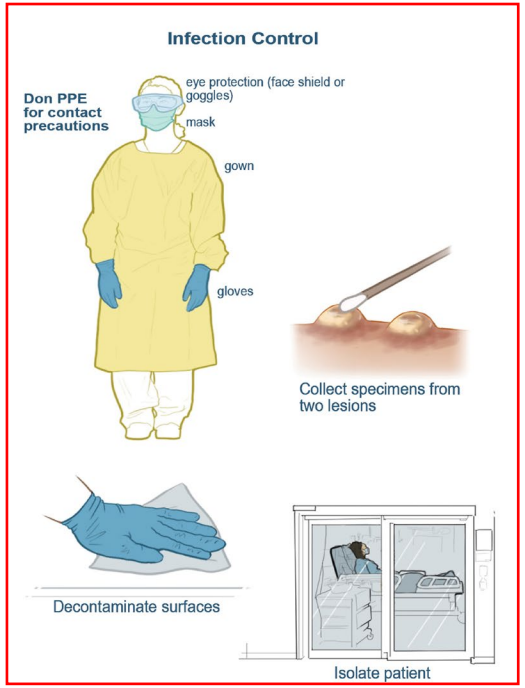
PPE/Notification/IPC

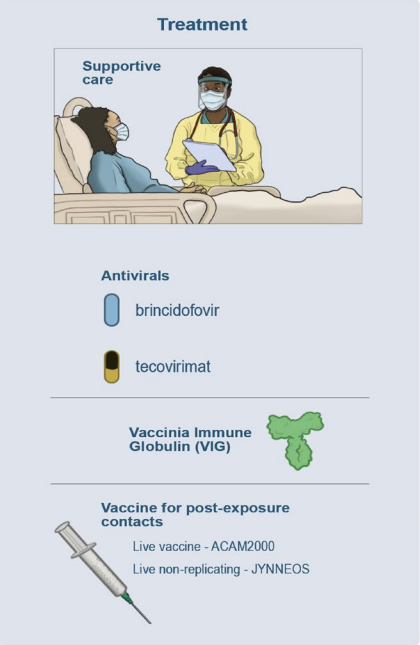
CDC: Monitoring and Risk Assessment:
https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html

CDC: Infection Prevention and Control:
https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-healthcare.html









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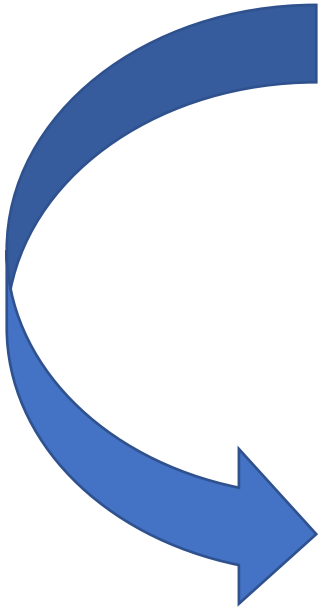
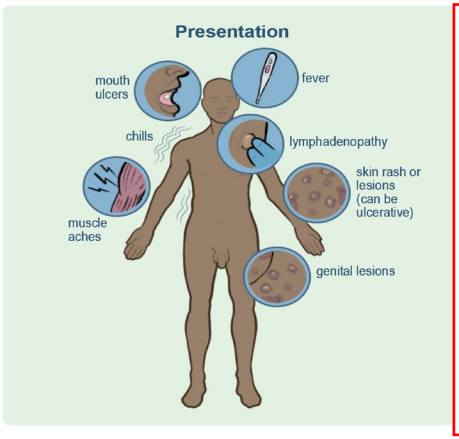
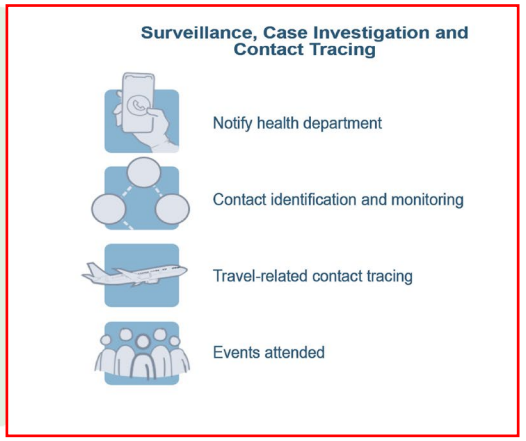
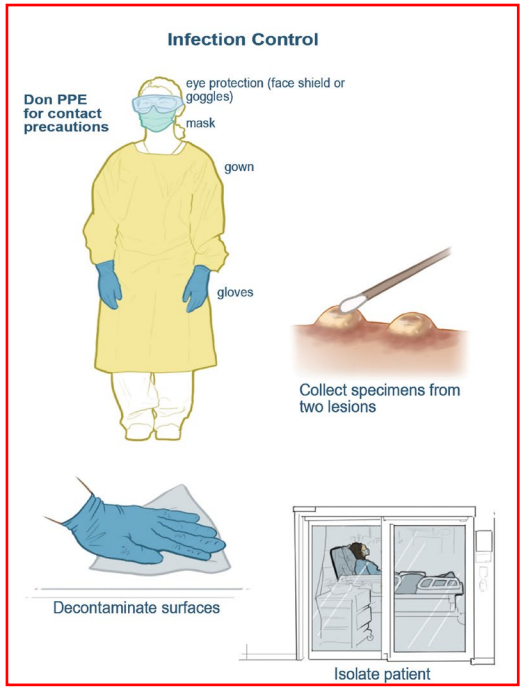
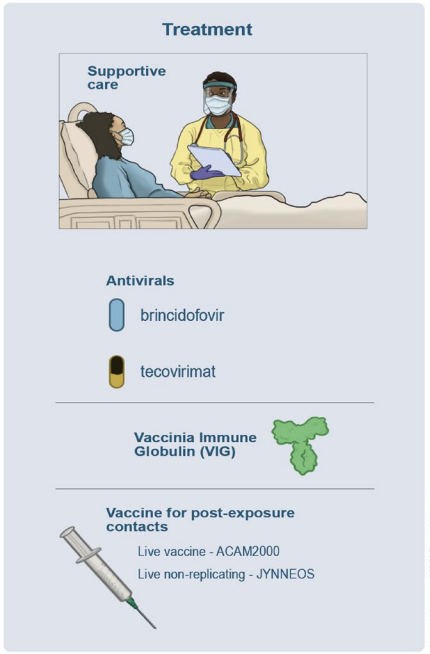
Diagnosis











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How to Dx HMPXV

- PCR for skin lesion or fluid
- Serology
  - Contact local/state health department for guidance

Tips from CDC on proper collection

https://www.cdc.gov/poxvirus/monkeypox/clinicians/prep-collection-specimens.html#:~:text=Collect%20two%20swabs%20from%20each,adequate%20viral%20DNA%20is%20collected.

CDC Testing algorithm:

https://www.cdc.gov/poxvirus/monkeypox/lab-personnel/lab-procedures.html

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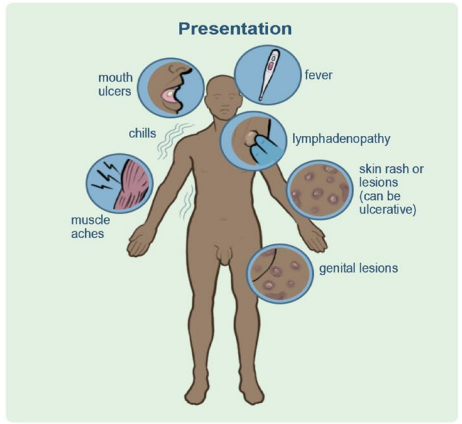

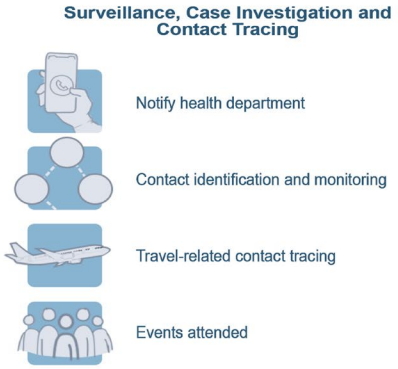

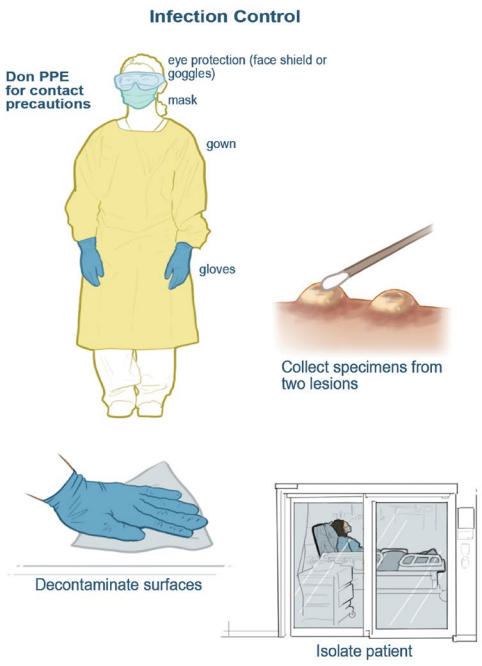

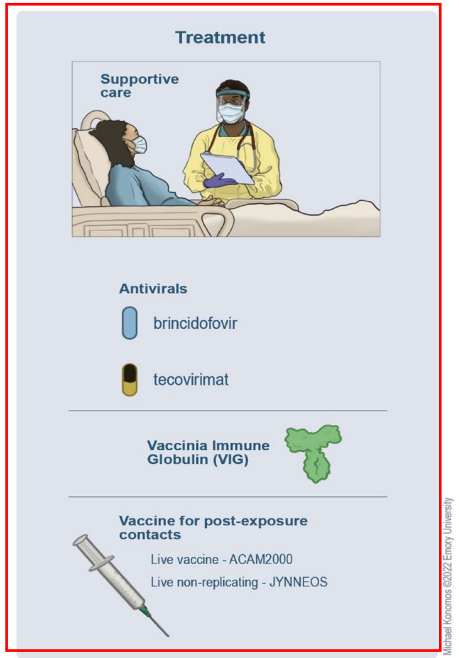

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Treatment:

- Unclear if treatment is helpful
  - CDC: severe cases, high risk groups
- Antivirals:
  - Tecovirimat (e-IND, CDC)
  - Brincidofovir (e-IND): LFT rise
  - Cidofovir
- Vaccina Immune Globulin IV

CDC, Interim Guidance for Prevention and Treatment
https://www.cdc.gov/mmwr/volumes/71/wr/mm7132e4.htm#:~:text=Tecovirimat is the first-line,selecting treatment (Table 2).

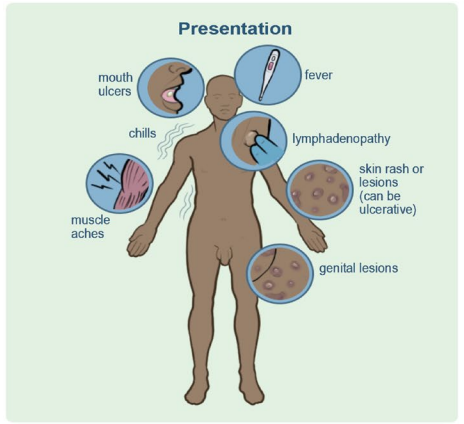
Open Forum Infect Dis, Volume 9, Issue 7, July 2022, ofac310, https://doi.org/10.1093/ofid/ofac310

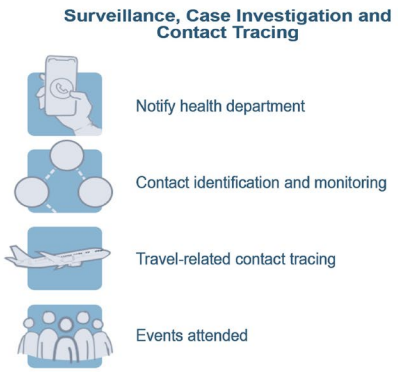
Clinical Protocols and Infection Control

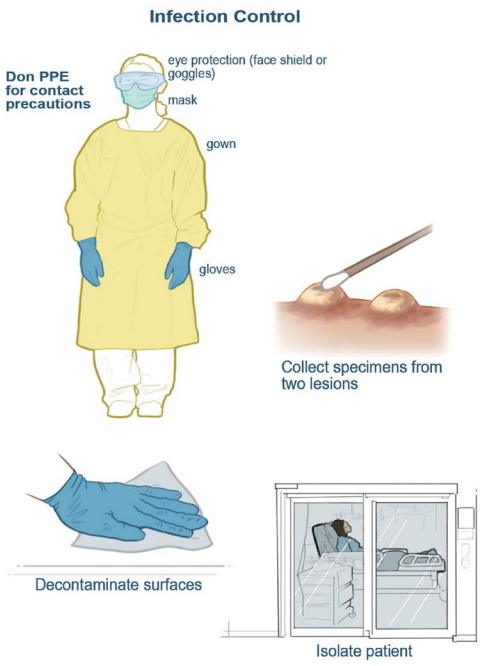
Pediatric Considerations for Treatment
Patients with severe disease
Patients with complications from Monkeypox infection
Populations currently thought to be at increased risk for severe disease: • Less than 8 years of age • Immunocompromising conditions • Patients with atopic dermatitis or other exfoliative skin disease, i.e. eczema, severe acne, severe dermatitis, including in the diaper area Infections involving eyes, face, genitalia

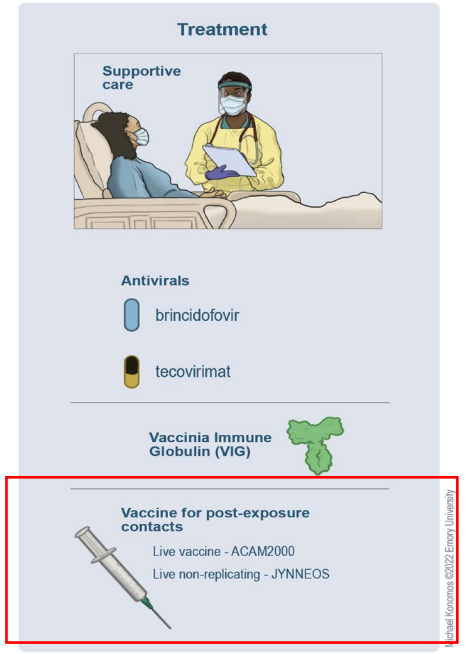
State and territorial health authorities can direct requests for treatment of MPOX to the CDC Emergency Operations Center **(770-488-7100)**

Pre Exposure Prophylaxis









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Pre-exposure Prophylaxis:

- **Use in Epidemiological Risk Groups**
  - High risk groups
  - Personnel in research lab
  - Public health response team

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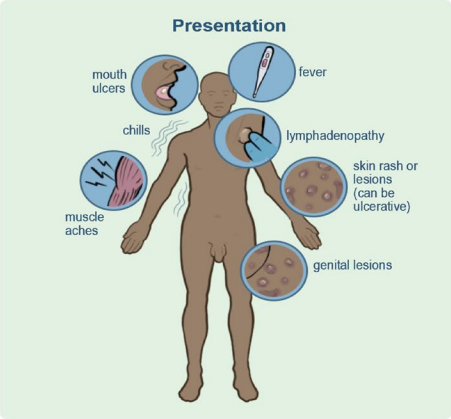
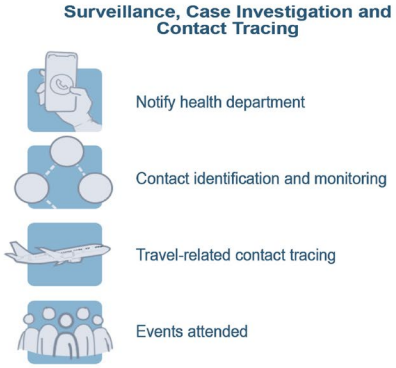
Post Exposure Prophylaxis

Patients who are at risk for monkeypox and are interested in a vaccine can receive it.



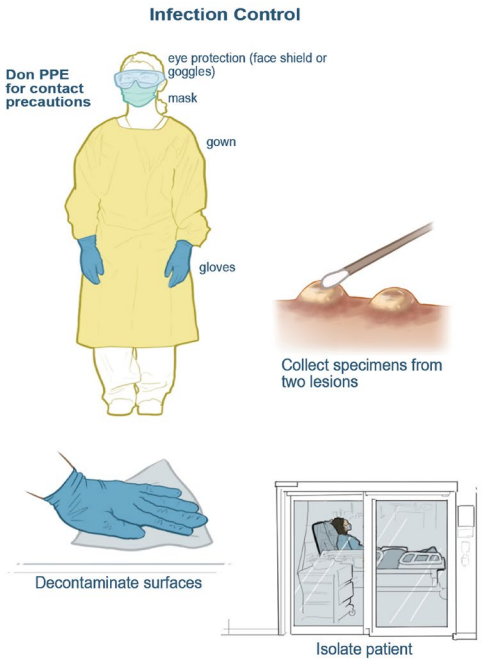


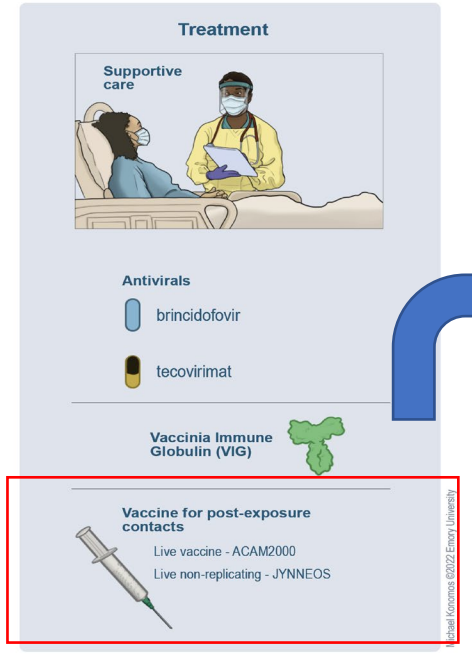
ACIP: Occupational exposure or high risk

- JYNNEOS (Live virus, non-replicating): safer
- ACAM200 (live virus): ≈85% efficacy in Africa

- **CDC: Post-exposure**
  - Administer vaccine within 4 days: Prevent Disease
  - 4- 14 days: Reduce symptoms

****85% effective in preventing HMPXV: Duration of protection is unknown**





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Vaccinia immune globulin (IND):
Available for patients that are not eligible For vaccination for PEP

CDC, Interim Guidance
https://www.cdc.gov/poxvirus/monkeypox/clinicians/vaccines/vaccine-considerations.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fpoxvirus%2Fmonkeypox%2Fhealth-departments%2Fvaccine-considerations.html

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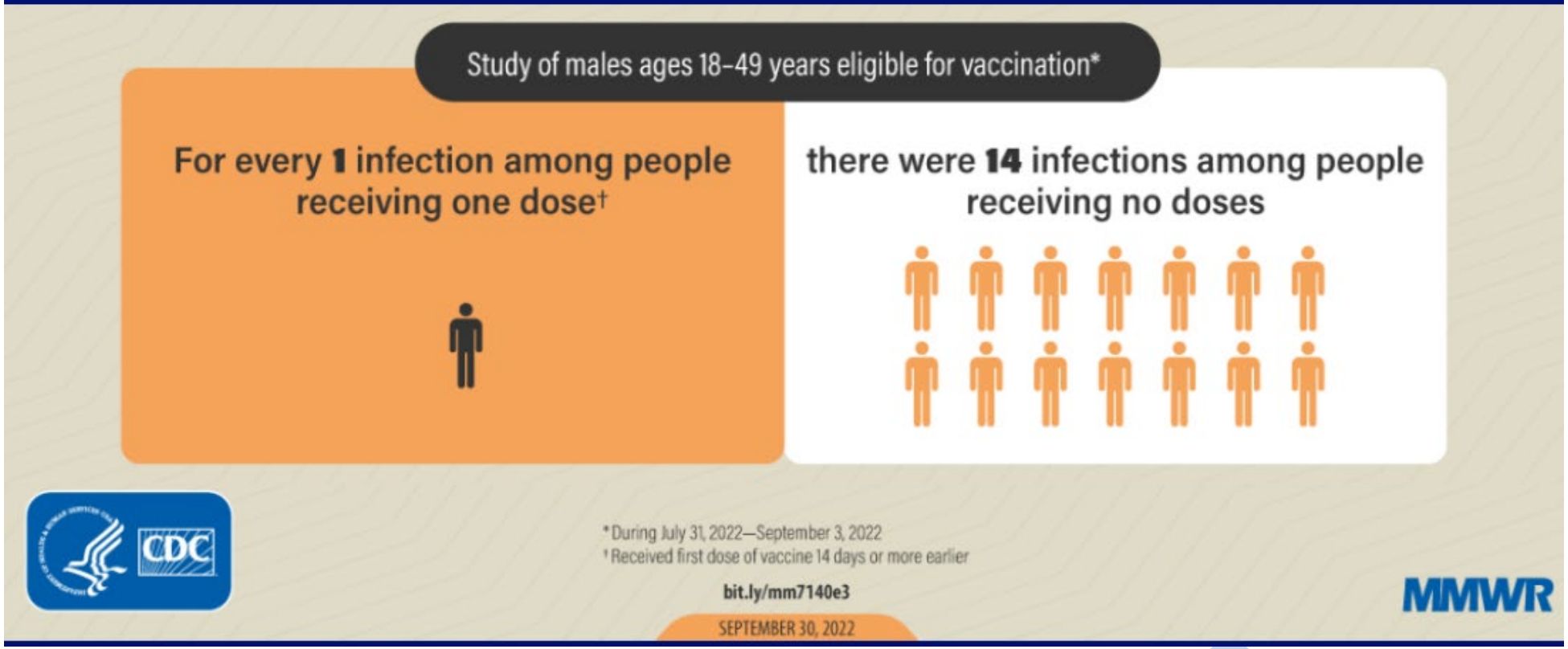
Incidence of Monkeypox Among Unvaccinated Persons Compared with Persons Receiving ≥1 JYNNEOS Vaccine Dose — 32 U.S. Jurisdictions, July 31–September 3, 2022



https://www.cdc.gov/mmwr/volumes/71/wr/mm7140e3.htm

Follow up Recommendations

- During duration of rash:
  - **Isolate**: stay home, except for medical reasons
  - **No visits**: avoid close contact with others and pets
  - **Ideally no sexual activity**. WHO: **recommends condom use for up to 12 weeks**
  - Cover rash with clothing, bandages, or gloves
  - Do not share items, avoid close contact, and adhere to strict hand washing/use of alcohol-based sanitizer
  - Disinfect frequently touched surfaces: **prevent fomite transmission**
  - **Wear face mask** if have close contacts in same home: **potential respiratory droplet**
  - Use Separate bathrooms
- Patients are considered non-infectious upon crusting of lesions
  - Should isolate in the meantime: until all skin lesions have healed with new skin layer **(Ranges 2-4 weeks)**
- Monitor for Rare complications:
  - Bacterial superinfection (abscess, cellulitis)→Patients can have bacteremia
  - Encephalitis, pneumonia, keratitis, corneal scarring

Summary: Emerging Infectious Diseases

- Global impact: Rapid spread
- **Have low threshold for testing**: Need for detailed history specially if sexually active
- It is a milder disease than historical cases but **disease can be severe**
- **Many unknowns** at this point and CDC monitoring closely
  - Studies are ongoing for efficacy of treatment options, duration of protection after vaccination, dynamics of transmission, and long term associated morbidity

Toolkits:

- CDC Case definitions:
  - https://www.cdc.gov/poxvirus/monkeypox/clinicians/case-definition.html
- CDC: Monitoring and Risk Assessment:
  - https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html
- CDC: Infection Prevention and Control:
  - https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-healthcare.html
- CDC Toolkit for Institutions of Higher Education:
  - https://www.cdc.gov/poxvirus/monkeypox/community/higher-education.html
- Tips from CDC on proper collection:
  - https://www.cdc.gov/poxvirus/monkeypox/clinicians/prep-collection-specimens.html#:~:text=Collect%20two%20swabs%20from%20each,adequate%20viral%20DNA%20is%20collected
- CDC Testing algorithm:
  - https://www.cdc.gov/poxvirus/monkeypox/lab-personnel/lab-procedures.html
- CDC, Interim Guidance for Prevention and Treatment
  - https://www.cdc.gov/mmwr/volumes/71/wr/mm7132e4.htm#:~:text=Tecovirimat%20is%20the%20first-line,selecting%20treatment%20(Table%202).
- CDC, Interim Guidance
  - https://www.cdc.gov/poxvirus/monkeypox/clinicians/vaccines/vaccine-considerations.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fpoxvirus%2Fmonkeypox%2Fhealth-departments%2Fvaccine-considerations.html

Important Phone numbers:

- State and territorial health authorities can direct requests for treatment of monkeypox to the CDC Emergency Operations Center **(770-488-7100)**

Sites where vaccine is available in La

Updated: February 14, 2024

Healthcare Provider Locations: No walk-ins accepted. You must call ahead and get an appointment.

Parish	Location Name	Street Address	City	Main Phone
Vermilion	Vermilion Parish Health Unit	2501 Charity St	Abbeville	(337) 893-1443
Rapides	CLASS	1785 Jackson Street	Alexandria	(318) 442-1010
Rapides	Christus Community Clinic	3000 MacArthur Drive	Alexandria	(318) 528-6800
Madison	Morehouse Parish Health Unit	650 School Road	Bastrop	(318) 283-0806
Rapides	Rapides Parish Health Unit	5604-A Coliseum Blvd	Alexandria	(318) 487-5282
East Baton Rouge	East Baton Rouge Parish Health Unit	353 N. 12th Street	Baton Rouge	(225) 242-4862
East Baton Rouge	Open Health Care Clinic	3801 North Blvd	Baton Rouge	(225) 655-6422
East Baton Rouge	Capitol City Family Health	4000 Gus Young Ave	Baton Rouge	(225) 388-5861
East Baton Rouge	Our Lady of the Lake MidCity Pharmacy	1401 N. Foster Drive	Baton Rouge	(225) 358-4853
East Baton Rouge	Our Lady of the Lake Physician Group - Picardy	626 Picardy Avenue	Baton Rouge	(225) 765-5500
Washington	Washington Health Unit-Bogalusa	626 Carolina Ave	Bogalusa	(985) 732-6615
Caldwell	Winters Clinic	421 Main Street	Columbia	(318) 649-6157
Acadia	Acadia Parish Health Unit	1029 Capitol Ave	Crowley	(337) 788-7507
Jefferson	Priority Health Care	12 Westbank Expressway	Gretna	(504) 509-4800
Tangipahoa	Northoaks Urgent Care and Occ. Health	1900 S Morrison Blvd #200	Hammond	(985) 230-5726
Tangipahoa	Tangipahoa Health Unit	15481 W Club Deluxe Rd	Hammond	(985) 543-4165
Jefferson	Westbank Pharmacy	3709 Westbank Expressway Suite 1-C	Harvey	(504) 340-0777
Terrebonne	Start Community Health Center	235 Civic Center Blvd	Houma	(985) 333-2020
Lafayette	Acadiana Cares	809 Martin Luther King Jr Dr	Lafayette	(337) 233-2437
Lafayette	Ochsner Lafayette General Infectious Disease Clinic	116 B Hospital Drive	Lafayette	(337) 703-3390
Lafayette	Lafayette Foundation Clinic	117 Caillouet Place	Lafayette	(337) 988-9737
Lafayette	Lafayette Parish Health Unit	220 West Willow St. bldg. A	Lafayette	(337) 262-5616
Calcasieu	Calcasieu Parish Health Unit	3236 Kirkman Street	Lake Charles	(337) 478-6020
Calcasieu	Common Street Clinic	425 Kingsley St	Lake Charles	(337) 439-5861
St. John	The Urgent Care	1706 Cannes Drive	LaPlace	(985) 359-2273
Livingston	Livingston Health Unit	20399 Government Blvd	Livingston	(225) 686-7017
St. Tammany	Mandeville Pharmacy	1655 U.S. Hwy 190	Mandeville	(985) 778-2306
St. Tammany	VIP Intensive Urgent Care	10 St. Ann Dr	Mandeville	(985) 788-7676
Avoyelles	Avoyelles Parish Health Unit	657 Government Street	Marksville	(318) 964-2699
Ouachita	Ouachita Parish Health Unit	1650 Desiard St	Monroe	(318) 361-7370

Sites where vaccine is available in La

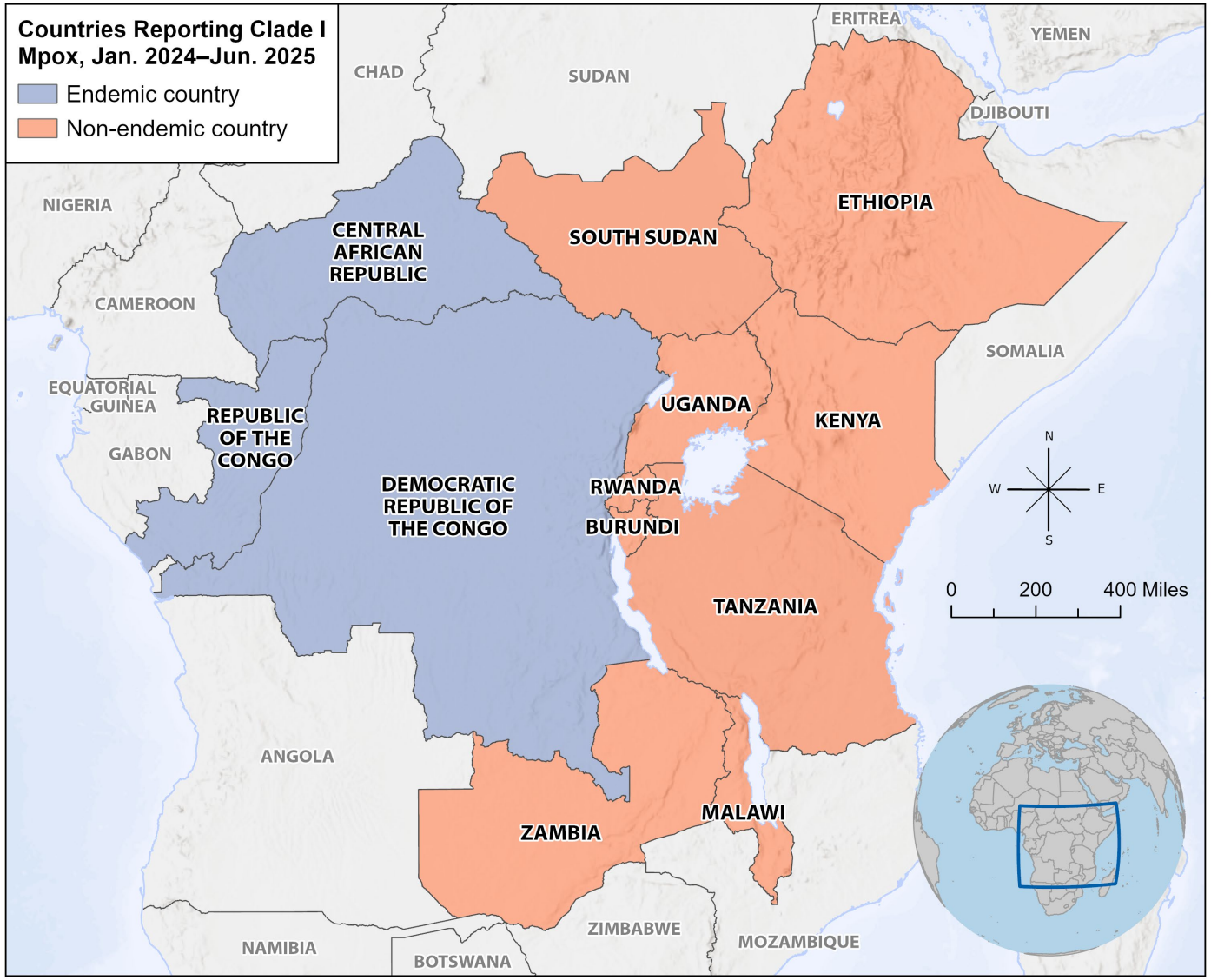
Iberia	Iberia Parish Health Unit	715 Weldon St B	New Iberia	(337)373-0021
Orleans	Metropolitan Health Services District	3100 General De Gaulle Drive	New Orleans	(504) 568-3130
Orleans	Crescent Care Health and Wellness Center	1631 Elysian Fields Ave.	New Orleans	(504) 821-2601
Orleans	DePaul CHC/Carrollton	3201 S Carrollton Ave	New Orleans	(504)207-3060
Orleans	Ochsner	1516 Jefferson Hwy	New Orleans	(504) 842-3000
Orleans	Tulane University School of Medicine	1430 Tulane Avenue	New Orleans	(504) 988-6224
Orleans	UMC	2000 Canal St	New Orleans	(504) 702-3000
Orleans	Travel Clinic NOLA	900 Camp Street	New Orleans	(504) 982-6824
Orleans	Tulane Total Health Clinic	711 N Broad St	New Orleans	(504) 988-3002
Orleans	St. Thomas CHC/Magazine Street	1936 Magazine St	New Orleans	(504) 529-5558
Orleans	New Orleans HCC	2900 Magazine Street	New Orleans	(504) 208-2000
St. Landry	St. Landry Parish Health Unit	308 W Bloch St	Opelousas	(337) 948-0220
Caddo	LSUHSC-S North Campus Extension (mobile unit)	2627 Linwood Ave	Shreveport	(318) 813-1907
Caddo	URGENTEMS, Inc	201 Market St	Shreveport	(318) 299-6512
Caddo	Philadelphia Center Wellness Clinic	2020 Centenary Blvd	Shreveport	(318) 222-6633
St. Martin	St. Martin Parish Health Unit	303 W Port St	St. Martinville	(337) 394-3097
Ouachita	Parkway Pharmacy	10374 US-165; suite C	Sterlington	(318) 812-2305
Lafourche	Lafourche Parish Health Unit (Thibodaux)	2535 Veterans Blvd.	Thibodaux	(985) 447-0921
St. James	St. James Parish Health Unit	29170 Health Unit St	Vacherie	(225) 265-2181
Evangeline	Evangeline Parish Health Unit	1010 W Lasalle St	Ville Platte	(337)363-1135
Ouachita	GoCare CHC/West Monroe	1801 N 7th St	West Monroe	(318) 325-1092
Franklin	Franklin Medical Center	2106 Loop Road	Winnsboro	(318) 435-9411

Prevention Strategies for Mpox, including Vaccinating People at Risk via Sexual Exposure, for U.S. Travelers Visiting Countries with Clade I Mpox Outbreaks

Print

Distributed via the CDC Health Alert Network
September 23, 2024, 12:45 PM ET
CDCHAN-00516

Countries with Sustained Clade I Mpox Transmission, Central and Eastern Africa



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