

Monkeypox in STI Clinics

June 14, 2022

Outline

1. Clinical presentation, and unique features of the current outbreak
2. Triage and testing processes in Florida and Massachusetts
3. Brief overview of monkeypox treatment and vaccination

What has been the impact of monkeypox at your clinic?

- A. No impact
- B. Patients have asked about it
- C. Changes in routine clinical processes
- D. Assessed a patient for monkeypox
- E. Cared for a patient with monkeypox
- F. Something else

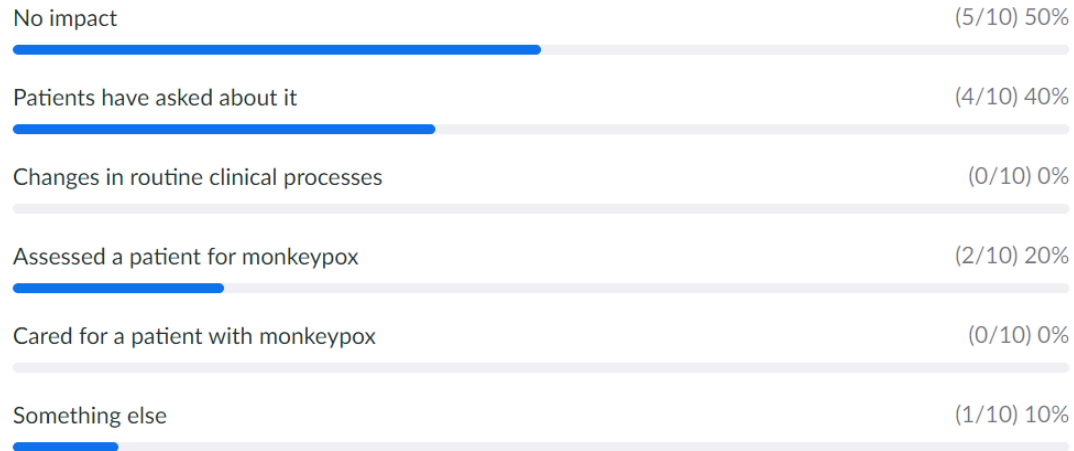


Poll Question!

1 questions | 10 participated

1. What has been the impact of monkeypox at your clinic? (Multiple Choice) *

10/10 (100%) answered



What is monkeypox?

- A viral illness in the same family as smallpox
- Endemic in Central and West Africa, especially the Democratic Republic of the Congo
- Typical risk factors: Travel to an endemic area, contact with animals (African rodents and monkeys)
- Clinical features:
 - Incubation period of 1-2 weeks
 - Prodrome of fever, malaise, headaches, weakness, lymphadenopathy
 - Rash (macular->papular->vesicular->pustular) that evolves and resolves over 2-3 weeks; rash may occur on the trunk, palms/soles, and mucous membranes
 - Severity may vary by strain (Central African more severe than West African strain)
- Human-to-human transmission: Respiratory droplets, direct contact with body fluids or sores of a person with the infection

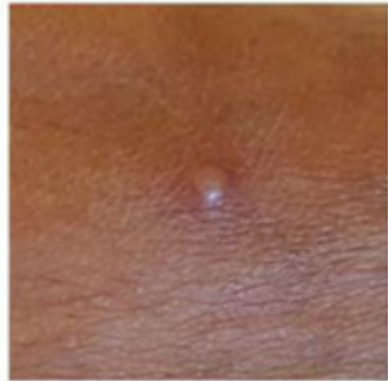
Visual Examples of Monkeypox Rash



Photo Credit: NHS England High Consequence Infectious Diseases Network

More Monkeypox Rash Photos

Photo credit: UK Health Security Agency



Characteristic rash:

- Well-circumscribed
- Deep-seated
- Umbilicated
- Same size and stage on the same part of the body
- Centrifugal (more on the face and extremities, including palms and soles)
- Lesions may be painful



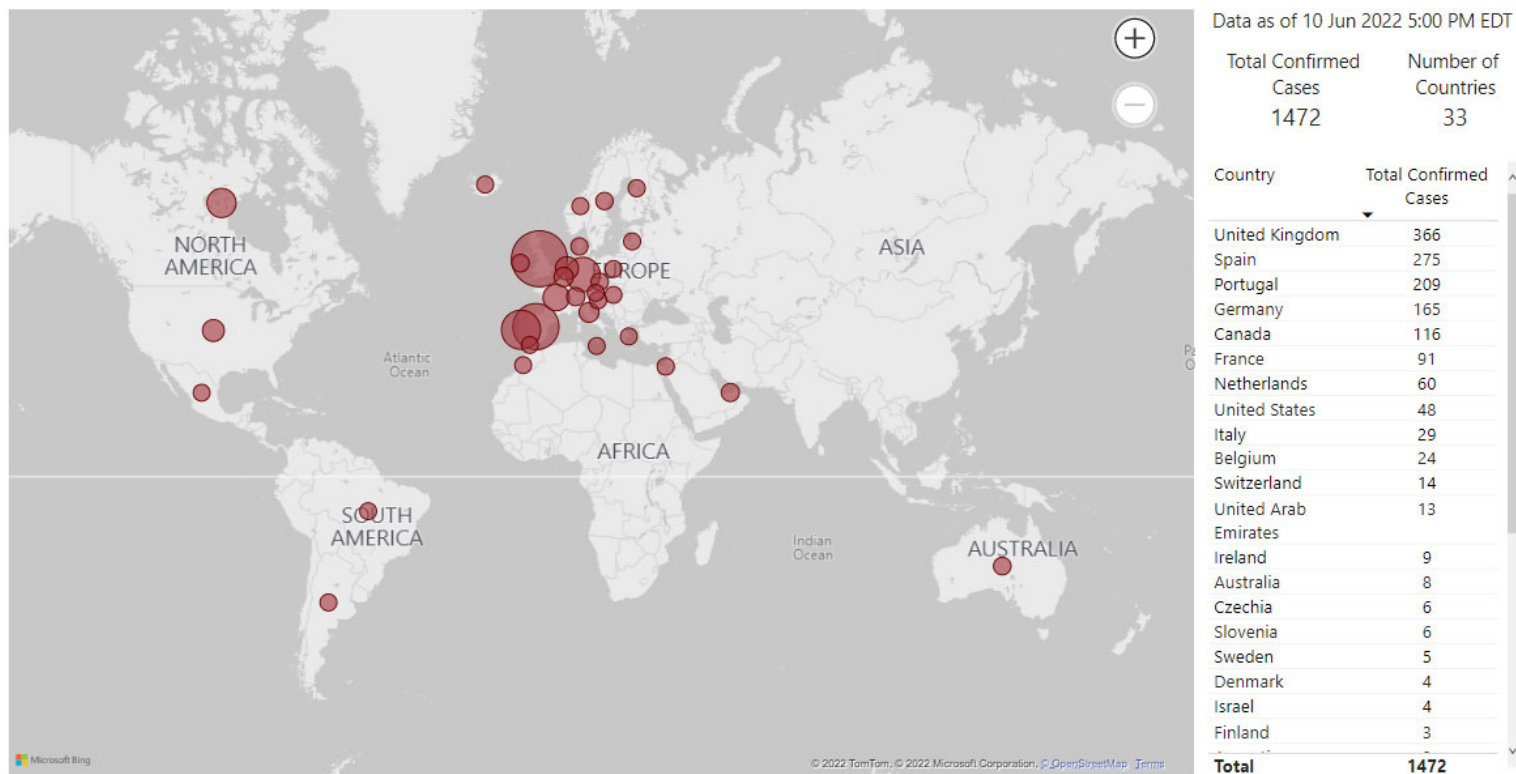


BREAKING NEWS

Mass. Health Officials confirm first case of monkeypox in 2022

14:45
BOSTON

2022 Monkeypox and Orthopoxvirus Outbreak Global Map



Notes: Numbers shown are sourced from publicly available official sources, such as the WHO, European CDC, US CDC, and Ministries of Health. Data are provided for situational awareness only and are subject to change. Confirmed cases include those confirmed as monkeypox virus and may include cases only confirmed as orthopoxvirus.

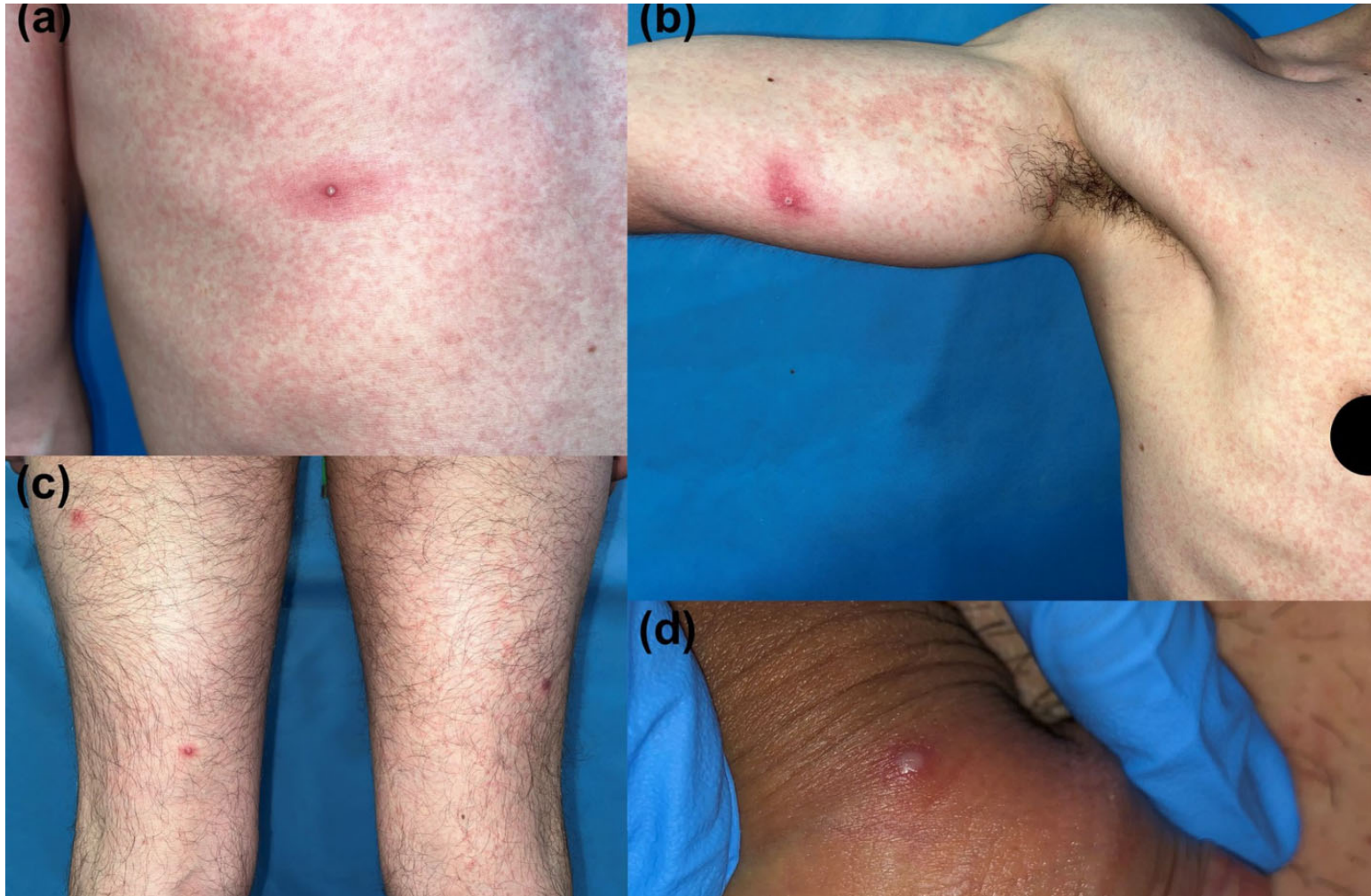
Features of the 2022 monkeypox outbreak

Features	Difference versus “classic” monkeypox
Prodrome	May be mild or absent; proctitis may be present
Rash	May arise in the perianal or genital region May mimic syphilis, HSV, chancroid, VZV
Epidemiology	Many affected people are gay, bisexual, or other MSM who have not traveled to endemic countries

TABLE 2. Clinical characteristics of patients with confirmed orthopoxvirus and monkeypox (N = 17) — United States, May 2022*

Characteristic	No. (%)		
	At illness onset	Prodromal period [†]	At any point in illness
Signs and symptoms[§] during illness			
→ Rash	5 (29)	NA	17 (100)
Fatigue or malaise	3 (18)	13 (76)	13 (76)
Chills	0 (—)	4 (24)	12 (71)
Lymphadenopathy	0 (—)	1 (6)	9 (53)
Inguinal	0 (—)	0 (—)	6 (35)
Cervical [¶]	0 (—)	1 (6)	3 (18)
Headache	2 (12)	5 (29)	8 (47)
→ Fever	6 (35)	5 (29)	7 (41)
Body ache	1 (6)	2 (12)	6 (35)
Sore throat or cough	2 (12)	3 (18)	5 (29)
Sweat	1 (6)	2 (12)	4 (24)
Other	3 (18)	4 (24)	13 (76)
Rash locations[§]			
Arm	4 (24)	NA	9 (53)
Trunk	1 (6)	NA	9 (53)
Leg	0 (—)	NA	8 (47)
Face	2 (12)	NA	7 (41)
Hand	1 (6)	NA	6 (35)
→ Perianal	5 (29)	NA	6 (35)
Oral	0 (—)	NA	5 (29)
Neck	1 (6)	NA	5 (29)
→ Genital (penis or vagina)	4 (24)	NA	4 (24)
Feet	1 (6)	NA	4 (24)

Abbreviation: NA = not applicable.



(a)

(b)

(c)

(d)

Current definition for suspected case

1. New characteristic rash **OR**
2. Clinical suspicion for monkeypox (including STI commonly confused with monkeypox) and at least one of the following within the past 21 days:
 - Contact with a confirmed or probable case of monkeypox
 - Close or sexual contact with a person in a social network experiencing monkeypox transmission (e.g., MSM)
 - Travel to a country with monkeypox transmission
 - Contact with an animal or animal product endemic to Africa

Monkeypox can be excluded if:

- An alternative diagnosis fully explains the illness **OR**
- A person with prodromal symptoms does not develop a rash within 5 days of the onset of symptoms **OR**
- A high-quality specimen is negative for orthopoxvirus or monkeypox virus

If you suspect monkeypox in Florida:

- Contact local FDOH epidemiology immediately
- Obtain history
 - Medical history
 - Travel (e.g. location and flight info)
 - Signs and symptoms
 - Exposure history
 - Activities during the 21 days prior to first symptom onset
 - Potential contacts (e.g. sexual contacts)
 - Exposure to animals
- Photos of rashes, including progression, location on body and timeline

Laboratory testing in Florida

- History and photos for test approval from the Regional Epidemiologist: Dr. Danielle Stanek or Daniel Chacreton
- If meets criteria → obtain orthopoxvirus real-time PCR at the Bureau of Public Health Laboratories in Jacksonville or Tampa; if positive, the specimen will be sent to CDC for confirmation
- Important: 2 swabs for each lesion

Triage process at the MGH Sexual Health Clinic

- Ask patients about symptoms at the time of booking; if symptoms are present, ask specifically about rash
- If rash is present, engage the clinic RN for further phone or visual triage
- If PUI criteria are met, contact Biothreats and the State Epidemiologist

Table: In Person Visit Requirements based on initial phone or telemedicine triage

Person Under Investigation (PUI) Criteria Met	Clinical and epidemiologic features	Subsequent evaluation
Yes	Meets the current case definition for monkeypox (see First Steps Guide)	Follow the procedures on the First Steps Guide for patients who have not yet presented to care. Strict Isolation is required for in-person visits*.
Possible	Meets the clinical but not epidemiologic criteria for monkeypox (e.g., unexplained vesicular lesions) and it is not possible to further risk stratify based on the initial triage (see First Steps Guide)	Further evaluate the patient in person or via telemedicine. A priority in this evaluation is to define if the patient meets PUI criteria. Strict Isolation is required for in-person visits*.
No	Illness not compatible with monkeypox (see First Steps Guide)	Further evaluate, as needed, through a telemedicine or in-person visit*. The in-person visit can be performed under standard precautions.

Infection control: CDC recommendations

- Patient placement: Single room with the door closed; the patient should wear a mask if they leave the room.
- *(At MGH, use a negative pressure room.)*
- PPE for health care providers:
 - Gown
 - Gloves
 - Eye protection
 - N95

Monkeypox treatment

Tecovirimat (TPOXX)

- Approved for the treatment of smallpox
- Available on a compassionate use basis for monkeypox

Cidofovir

- Approved for the treatment of CMV in AIDS
- Available on a compassionate use basis for monkeypox

Vaccinia immune globulin

- Licensed by the FDA for treatment of complications of vaccinia vaccination
- CDC's expanded access protocol allows for use for monkeypox

ACAM2000 and JYNNEOS

	ACAM2000	JYNNEOS
Vaccine virus	Replication-competent vaccinia virus	Replication-deficient Modified vaccinia Ankara
“Take”	“Take” occurs	No “take” after vaccination
Inadvertent inoculation and autoinoculation	Risk exists	No risk
Serious adverse event	Risk exists	Fewer expected
Cardiac adverse events	Myopericarditis in 5.7 per 1,000 primary vaccinees	Risk believed to be lower than that for ACAM2000
Effectiveness	FDA assessed by comparing immunologic response and “take” rates to Dryvax*	FDA assessed by comparing immunologic response to ACAM2000 & animal studies
Administration	Percutaneously by multiple puncture technique in single dose	Subcutaneously in 2 doses, 28 days apart

*Both ACAM2000 and Dryvax are derived from the NYC Board of Health strain of vaccinia; ACAM2000 is a “second generation” smallpox vaccine derived from a clone of Dryvax, purified, and produced using modern cell culture technology.

Monkeypox post-exposure prophylaxis

Time after exposure	Goal
Within 4 days of exposure	Prevent development of monkeypox
Between 4-14 days after exposure	Reduce the severity of monkeypox infection

