

“The Monkeypox Virus: Through the Lens of EMS”


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Chronology

- May 7th – Person infected with Monkeypox identified in London after travel to Nigeria
 - May 14th - 2 additional cases identified in London – not linked to first case and no travel to endemic countries
 - May 19th – First case confirmed in the US in person recently returned from Canada
 - May 21st – multiple cases of Monkeypox in non-endemic countries reported to WHO – concern for community spread
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Confirmed Cases

38,019

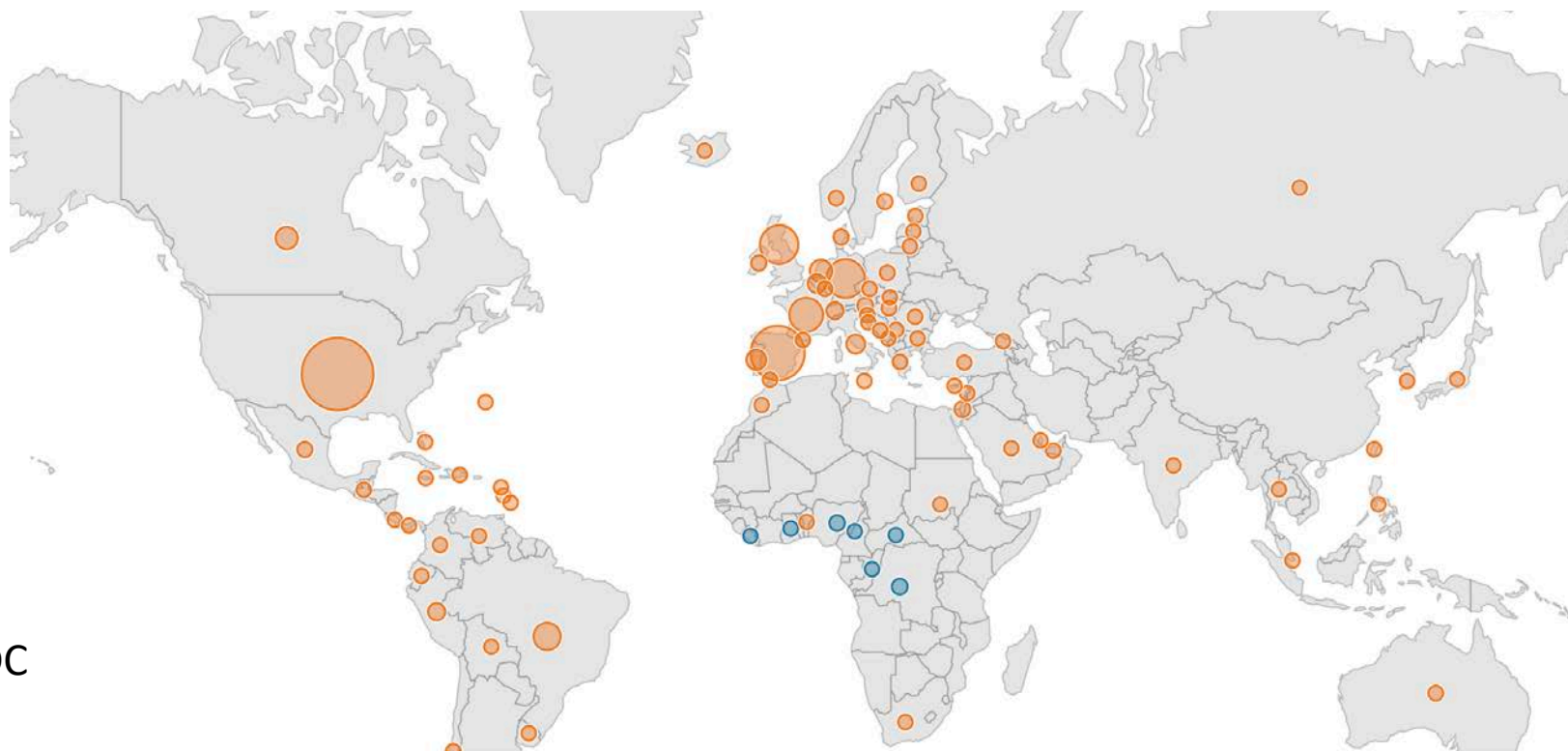
Total Cases

37,632

in locations that have not historically reported monkeypox


387

in locations that have historically reported monkeypox



Graphic/CDC

Monkeypox

- Orthopox virus – which also include smallpox, vaccinia and cowpox
 - Endemic in Central and West Africa
 - First human case reported in 1970
 - Prior to 2022 - exported from Africa on 6 occasions
 - 2003 – USA – 47 cases
 - 2018 – UK – 3 cases
 - 2018 – Israel – 1 case
 - 2019 – Singapore – 1 case
 - 2021 – UK – 3 cases
 - 2021 – USA – 2 cases
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Identify, Isolate, and Inform



Monkeypox: Identify

- Close contact/travel history
- Incubation
 - Typically 7-14 days(range 5-21 days)
- Clinical presentation
 - Prodrome of fever, malaise, headache, muscle aches, lymphadenopathy
 - After 1-3 days of prodrome a generalized rash appears typically on the face and then spreads to other parts of the body
 - Macules, papules, vesicles, pustules
 - Rash lasts 2-4 weeks



Child affected with monkeypox.

Monkeypox: Identify

Visual Examples of Monkeypox Rash



Photo Credit: NHS England High Consequence Infectious Diseases Network

- genital and perianal lesions and pain when swallowing
- not all patients have fever, swollen lymph nodes
- rash may develop in the perianal or genital region and not spread to other areas of the body
- link to endemic countries not required

Monkeypox: Isolate

- Case fatality rate
 - Central African clade (up to 10%)
 - West African clade (up to 1%)
 - Very few deaths reported in non-endemic countries
- Transmission
 - Direct or indirect contact with infectious body fluids and respiratory droplets – some risk of transmission via suspended droplet nuclei
 - Potentially infectious 5 days prior to rash onset
 - Infectious until crusting of skin lesions
- PPE
 - Standard + gown + N-95 + eye protection (CDC)


Monkeypox: Isolate

- Hierarchy of controls for EMS
 - Source control - apply surgical mask to patient
 - Apply barrier sheets as tolerated
 - Personnel in appropriate PPE (gloves, gown, N-95 respirator, face shield/goggles)
 - Limit number of personnel making contact
 - Separate driver compartment from patient compartment
 - Caution with aerosol generating procedures
 - Adjust air handling to introduce fresh air in both compartments
 - Turn exhaust fan on high in the patient compartment if so equipped

Monkeypox: Isolate

- Hierarchy of controls for EMS
 - EPA registered hospital grade disinfectant
 - Contact public health regarding classification of waste
 - Category A vs Category B
 - Monitor personnel for signs and symptoms of illness 21 days


Monkeypox: Inform

- Other responders
 - Supervisory personnel
 - Receiving facility
 - Public health authority
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Monkeypox: Medical therapy

- Supportive care
- Antivirals used to treat smallpox: e.g., Tecovirimat
- Vaccine – PEP and PrEP
 - JYNNEOS (Imvanex)
 - Licensed to prevent monkeypox and smallpox
 - ACAM 2000
 - Licensed to prevent smallpox

In summary...

- Be alert for suspicious rash
 - Identify, Isolate and Inform
 - Gown, gloves, N-95 respirator, face shield/eye protection
 - Private room, private bath
 - Linens and waste management
 - HCP health monitoring
 - PEP and PrEP with public health guidance
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Monkeypox Resources/References

