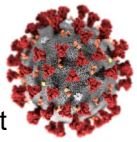
EPI SCOPE

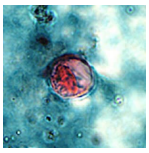
FLORIDA DEPARTMENT OF HEALTH IN SEMINOLE COUNTY EPIDEMIOLOGY NEWSLETTER // JULY 2022 ISSUE

What's Included?

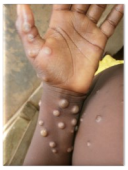
Fast Stats & Updates

COVID-19 case counts have **plateaued** in Seminole County. **68%** of eligible Seminole County residents have received at least one dose of a COVID-19 vaccine. **Visit the Florida Department of Health (FDOH) COVID-19 website for more information.**





It is cyclosporiasis ("Cyclo") season and case counts are currently increasing in Florida. Cyclo is caused by a parasite and leads to gastrointestinal illness. The parasite enters the body by consuming food or water that is contaminated with the parasite. Commercial testing is available for this parasite in stool and it is reportable to FDOH by the business day following diagnosis.



Monkeypox activity continues to increase in the U.S. **Florida is the state with the fourth highest number of cases.** Seminole County has reported two cases. Many cases report history of male-to-male sexual contact. For questions or to report a confirmed or suspect case of monkeypox, please call 407-665-3243 (business hours) or 407-665-3000, option 1 afterhours). Visit CDC, FDOH & FL CHARTS for more information and case data.

IMPACT OF COVID-19 ON ANTIMICROBIAL RESISTANCE

Keisha Nauth, MPH

Antimicrobials, which encompass antibiotics, antivirals, antifungals, and antiparasitics, are medicines that are used for treatment and prevention of infections not only in humans, but also in plants and animals. When microorganisms such as bacteria, fungi, parasites mutate and evolve, they may no longer respond to these medicines, also known as antimicrobial resistance (AR). In the U.S, there are more than 2.8 million AR infections and more than 35,000 deaths that occur each year. The concern with AR is that these germs will continue to grow and spread, which can make identification and containment difficult. Additionally, the treatment used for AR infections can lead to medical complications thereby delaying recovery for patients.

The Centers for Disease Control and Prevention (CDC) released a 2022 Special Report on COVID-19: U.S. Impact on Antimicrobial Resistance to highlight the challenges faced in the fight against antimicrobial resistance during a multi-year pandemic. When the COVID-19 pandemic started, there was a shift from tracking AR to tracking COVID-19 in the healthcare system. During this time there was an increase in antimicrobial use and compliance issues with infection prevention protocols; this in turn led to an increase, of approximately 15%, in healthcare-associated infections (HAIs) and AR infections (Table 1).

Table 1. Hospital-Onset Rate Change from 2019-2020

Resistant Pathogen*	Percent Increase
Carbapenem-resistant Acinetobacter	78%
Antifungal-resistant Candida auris	60% *
Carbapenem-resistant Enterobacterales	35%
Antifungal-resistant Candida	26%
ESBL-producing Enterobacterales	32%
Vancomycin-resistant Enterococcus	14%
Multidrug-resistant P. aeruginosa	32%
Methicillin-resistant Staphylococcus aureus	13%

**Candida auris* is not included in the rate calculation

While much of the work of AR was set back due to COVID-19, AR prevention and preparedness continues to be a top goal for CDC. Through increased surveillance, medical innovation and research the goal is to slow and prevent new and emerging resistant infections. As a result of AR prevention efforts, the response expected is an increase in the health of the population, as well as a reduction in healthcare costs.

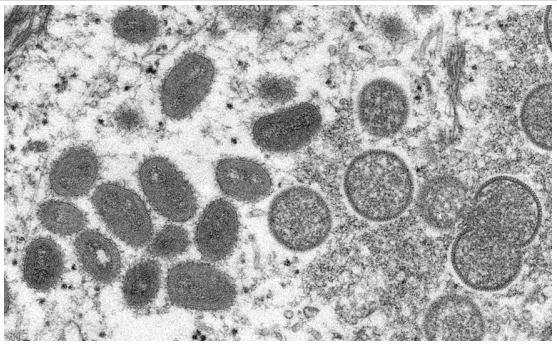
Through a collective effort between the individuals being prescribed, and the healthcare professionals prescribing antimicrobial therapy there are some steps that can be taken to prevent and control misuse and overuse of antimicrobials. These include:

- Education on infection prevention and control techniques
- Taking antimicrobial therapy as prescribed
- Not sharing or using leftover antibiotics
- Prescribing and dispensing antibiotics based on need and current guidelines
- Reporting all resistant infections to surveillance teams.

Sources: CDC: Where Resistance Spreads; CDC: About Antimicrobial Resistance Antimicrobial Resistance; CDC: COVID-19 Reverses Progress in Fight Against Antimicrobial Resistance in U.S.; CDC: Antibiotic Resistance Questions and Answers; World Health Organization: Antibiotic Resistance

MONKEYPOX UPDATE

Carley Robinson, MPH



Monkeypox continues to spread across the United States. As of July 26, 19,188 cases of monkeypox/orthopoxvirus have been reported globally and 3,591 cases have been reported in the United States. Florida currently has the fourth highest number of monkeypox/orthopoxvirus cases in the United States with 309 cases, preceded in the list by New York, California and Illinois. Cases have primarily been identified among those who have reported male to male sexual contact during their incubation period; however, any direct contact with respiratory secretions and fluid from monkeypox lesions constitutes an exposure and can lead to infection. Local transmission of monkeypox in the United States is occurring, so while foreign travel during their incubation period should still be assessed, lack thereof should not rule out the possibility of monkeypox if other risk factors and clinical presentation are indicative of monkeypox.

Monkeypox is an orthopoxvirus in the same family as smallpox. The incubation period for monkeypox ranges from 5-21 days with an average of 5-13 days. Prodromal symptoms can include fever, chills, lymphadenopathy, malaise, headache, and muscle aches, followed by a rash, which has been historically characterized by a centrifugally distributed rash with synchronistic progression.

- Smaller lesions
- Lesions in different stages side-by-side
- Scattered or diffuse rash, sometimes limited to one body site
- Prodromal symptoms mild or non-existent
- Fever and lymphadenopathy not as common
- Co-infection with sexually transmitted infections (STIs)

However, with the current outbreak, illness has been characterized as:

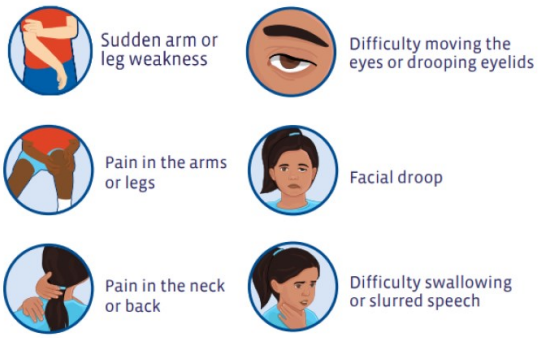
If you suspect a patient of having monkeypox, please alert the Florida Department of Health in Seminole County (DOH-Seminole) Epidemiology Program immediately. Testing is available commercially and should be ordered in addition to rule-out tests for STIs and varicella. Once notified, the Epidemiology Program will work with the clinician and patient to obtain sexual and travel history, risk factors, symptomology and onset, as well as pictures of the rash. If a case is confirmed, the epidemiology team will conduct contact tracing and administer vaccine to those who are believed to have a significant exposure. Treatment for cases can be procured through your local health department, in coordination with the CDC.

Sources: CDC: Monkeypox; Florida Department of Health: Monkeypox

ACUTE FLACCID MYELITIS AWARENESS

Taylor Kwiatkowski, MPH

July is recognized by the Centers for Disease Control and Prevention (CDC) as Acute Flaccid Myelitis (AFM) Awareness Month. The significance acts as a reminder for clinicians and providers on important information to assist with the identification and notification of suspect AFM cases.



AFM is a rare but serious disease which can be caused by a variety of viruses including, but not limited to, enteroviruses, flaviviruses, herpesviruses and adenoviruses. AFM impacts the nervous system, causing muscles and reflexes in the body to weaken. Onset of symptoms can be sudden, with arm or leg weakness, loss of muscle tone and loss of reflexes being the most common symptoms. Symptoms may also include facial droop or weakness, drooping eyelids, difficulty moving their eyes and difficulty with swallowing or slurred speech. In severe cases, AFM can progress to respiratory failure and cause serious neurologic complications.

The CDC began tracking AFM in 2014 when the first increase of AFM was identified in the United States (U.S.). Since then, two additional increases have been observed in 2016 and 2018. Over 90% of AFM cases are reported in children with a majority occurring between August and November. If a patient is suspected of having AFM, they should be immediately hospitalized as AFM can progress rapidly and require urgent medical care, such as respiratory assistance. Testing for AFM includes magnetic resonance imaging (MRI) and laboratory testing of cerebrospinal fluid (CSF), respiratory secretions, blood and stool. Specimens should be collected as soon as possible following symptom onset for forwarding to CDC for diagnosis.

As of July 1, 2022, there have been 18 patients under investigation for AFM in the U.S., and of those, eight have been confirmed as AFM. One of the confirmed cases resides in Florida. As it is unclear what triggers AFM in a patient, there are no specific actions to take to prevent AFM. The CDC recommends taking steps to lower the risk of contracting a virus such as washing hands often with soap and water, avoid close contact with people who are sick and staying up to date on recommended vaccines.

For more information on AFM, please visit the CDC AFM website and the FDOH AFM information page. To report a case of suspected AFM, call the Florida Department of Health in Seminole County (DOH-Seminole) at 407-665-3243 (afterhours: 407-665-3000, option 1).

This is an official

CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network
July 12, 2022, 1:15 PM ET
CDCHAN-00469

Recent Reports of Human Parechovirus (PeV) in the United States—2022

Summary
The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to inform clinicians and public health departments that parechovirus (PeV) is currently circulating in the United States. Since May 2022, CDC has received reports from healthcare providers in multiple states of PeV infections in neonates and young infants. Parechoviruses are a group of viruses known to cause a spectrum of disease in humans. Clinicians are encouraged to include PeV in the differential diagnoses of infants presenting with fever, sepsis-like syndrome, or neurologic illness (seizures, meningitis) without another known cause and to test for PeV in children with signs and symptoms compatible with PeV infection (see below). Commercial laboratory assays, multiplex platforms for meningitis and encephalitis, and testing through state public health laboratories (SPHLs) are available to test cerebrospinal fluid (CSF) for PeV to confirm a diagnosis. CDC laboratory support is also available for testing and typing patient specimens.

To date, all PeV positive specimens tested and typed at CDC were type PeV-A3. Because there is presently no systematic surveillance for PeVs in the United States, it is not clear how the number of PeV cases reported in 2022 compares to previous seasons. PeV laboratory testing has become more widely available in recent years, and it is possible that increased testing has led to a higher number of PeV diagnoses compared with previous years.

Background
Human parechoviruses (PeVs), members of the *Picornaviridae* family, are common childhood pathogens associated with various clinical manifestations, ranging from asymptomatic or mild symptoms to severe illness. PeV share the same taxonomic family with enteroviruses. There are four species, of which only PeV-A is known to cause disease in humans. PeV-A has multiple types; PeV-A3 is most often associated with severe disease. Symptoms such as upper respiratory tract infection, fever, and rash are common in children between 6 months and 5 years, with most children having been infected by the time they start kindergarten. However, in infants less than 3 months, severe illness can occur, including sepsis-like illness, seizures, and meningitis or meningoencephalitis, particularly in infants younger than 1 month. Upon examination, the spinal fluid in infants with PeV often has few to no white blood cells. Long-term neurodevelopmental outcomes can occur, although this is rare. There is no specific treatment for PeV infection (1). However, diagnosing PeV in infants might change management strategies and provide important health information for families.

Both symptomatic and asymptomatic infected individuals can transmit PeV via the fecal-oral and respiratory routes. Shedding from the upper respiratory tract can occur for 1-3 weeks and from gastrointestinal tract for as long as 6 months after infection. The incubation period is unknown. PeVs are widespread and circulate worldwide. Some types show a clear seasonality of later summer and fall, similar to enteroviruses. PeV-A3 has been seen to demonstrate a cyclical pattern with peaks occurring biennially (2-4).

Recommendations for Clinicians

- Be aware that PeVs circulate in the summer and fall. In the absence of an identified pathogen, consider PeV infection in a neonate or infant presenting with fever, sepsis-like syndrome, or signs of neurologic involvement.
- Become familiar with specimen collection, storage, and shipping procedures. Testing for PeV is available at commercial clinical laboratories and SPHLs, and hospitals may use multiplex meningitis and encephalitis panels for CSF testing that include PeV. Testing and typing for PeV are also available at CDC when other options are unavailable; clinicians should still work with their state public health department to send specimens to CDC. Please contact PicornaLab@cdc.gov before submitting specimens. Accepted specimens include CSF, throat or nasopharyngeal swabs, blood, and stool.
- Consider cohorting an infant hospitalized with detected PeV infection with other affected infant(s) to avoid healthcare-associated transmission in nurseries or neonatal intensive care units.
- Use Contact, Droplet, and Standard Precautions. In most clinical situations, alcohol-based hand sanitizer (ABHS) is preferred for cleaning hands with an alcohol content of at least 60%. However, soap and water is the preferred method after patient care involving diapering or toileting, before eating or feeding, and if hands are visibly soiled (e.g., dirt, blood, body fluids). Although non-enveloped viruses may be less susceptible to alcohol than enveloped viruses, ABHS offers benefits in skin tolerance, compliance, and overall effectiveness, especially when combined with glove use. See Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings –Recommendations of the HICPAC for more information.
- Consult the state health department with questions about PeV.

Recommendations for Public Health Departments and Public Health Jurisdictions

- Be aware of circulating PeV and be prepared to receive inquiries about cases from healthcare providers in your jurisdiction.
- Upload reports of specimens that test positive for PeV to the National Enterovirus Surveillance System (NESS) to improve surveillance for this pathogen.
- Direct specimen testing questions to CDC at PicornaLab@cdc.gov.

For More Information

- Non-polio Enterovirus
- Laboratory Testing for Non-polio Enterovirus
- Specimen Collection, Storage, and Shipment
- National Enterovirus Surveillance System (NESS) | CDC

References

1. Harvala H, Griffiths M, Solomon T, Simmonds. Distinct systemic and central nervous system disease patterns in enterovirus and parechovirus-infected children. J Infect. 2014 Jul;69(1):69-74. doi: 10.1016/j.jinf.2014.02.017. E. Epub 2014 Mar 22
2. Harvala H, McLeish N, Kondracka J, McIntyre CL, et al. Comparison of human parechovirus and enterovirus detection frequencies in cerebrospinal fluid samples collected over a 5-year period in Edinburgh: HPeV type 3 identified as the most common picornavirus type. J Med Virol. 2011 May;83(5):889-96. doi: 10.1002/jmv.22023
3. Van der Sanden S, de Bruin E, Vennema H, Swanink C, et. Al. Prevalence of human parechovirus in the Netherlands in 2000 to 2007. J Clin Microbiol. 2008 Sep;46(9):2884-9. doi: 10.1128/JCM.00168-08. Epub 2008 Jul 9
4. Abedi GR, Watson JT, Nix WA, Oberste SM, Gerber SI. Enterovirus and Parechovirus Surveillance – United States, 2014 – 2016. *MMWR* Morb Mortal Wkly Rep 2018;67:515-518. doi: http://dx.doi.org/10.15585/mmwr.mm6718a2.

The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on

critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.

Categories of Health Alert Network messages

Health Alert	Requires immediate action or attention. Conveys the highest level of importance about a public health event.
Health Advisory	Requires immediate action. Provides important information about a public health event.
Health Update	May require immediate action. Provides updated information about a public health event.
HAN Info Service	Does not require immediate action. Provides general information about a public health event.

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##

SEMINOLE COUNTY MONTHLY SURVEILLANCE DATA

Confirmed and probable cases of select notifiable diseases as per 64D-3, Florida Administrative Code

These data are provisional and subject to change.

	Seminole Monthly Total		Year to Date Total		Seminole County Annual Totals		
Disease	**June 2022**	**June 2021**	**Seminole 2022**	**Florida 2022**	**2021**	**2020**	**2019**
A. Vaccine Preventable							
Measles	**0**	**0**	**0**	**0**	0	0	0
Mumps	**0**	**0**	**1**	**7**	0	0	1
Pertussis	**0**	**0**	**0**	**34**	1	10	6
Varicella	**1**	**0**	**10**	**234**	15	18	24
B. CNS Diseases & Bacteremias							
Creutzfeldt-Jakob Disease (CJD)	**0**	**0**	**0**	**43**	1	0	1
Meningitis (Bacterial, Cryptococcal, Mycotic)	**0**	**0**	**0**	**74**	0	1	2
Meningococcal Disease	**1**	**0**	**3**	**46**	0	0	0
C. Enteric Infections							
Campylobacteriosis	**6**	**2**	**31**	**1918**	56	38	75
Cryptosporidiosis	**0**	**0**	**4**	**253**	3	4	4
Cyclosporiasis	**1**	**0**	**1**	**28**	10	6	25
E. coli Shiga Toxin (+)	**2**	**0**	**5**	**450**	29	6	7
Giardiasis	**1**	**1**	**10**	**549**	14	16	14
Hemolytic Uremic Syndrome (HUS)	**0**	**0**	**0**	**5**	0	0	0
Listeriosis	**0**	**0**	**1**	**29**	0	0	0
Salmonellosis	**7**	**6**	**21**	**2382**	90	76	120
Shigellosis	**2**	**0**	**7**	**362**	9	12	22
D. Viral Hepatitis							
Hepatitis A	**1**	**0**	**10**	**209**	1	10	48
Hepatitis B in Pregnant Women	**0**	**0**	**5**	**202**	2	2	13
Hepatitis B, Acute	**1**	**2**	**7**	**344**	11	8	16
Hepatitis C, Acute	**1**	**2**	**10**	**720**	22	28	15
E. Vectorborne/Zoonoses							
Animal Rabies	**0**	**0**	**0**	**31**	1	7	2
Rabies, possible exposure	**8**	**9**	**36**	**2336**	81	134	180
Chikungunya Fever	**0**	**0**	**0**	**0**	0	0	0
Dengue	**0**	**0**	**0**	**0**	0	0	5
Eastern Equine Encephalitis	**0**	**0**	**0**	**0**	0	0	0
Lyme Disease	**0**	**0**	**0**	**98**	4	3	4
Malaria	**0**	**1**	**0**	**23**	2	0	3
West Nile Virus	**0**	**0**	**0**	**0**	0	0	0
Zika Virus Disease	**0**	**0**	**0**	**0**	0	0	0
F. Others							
Chlamydia	**127**	**203**	**893**	**n/a**	1,898	1,730	2,002
Gonorrhea	**58**	**67**	**314**	**n/a**	683	591	620
Hansen's Disease	**0**	**0**	**0**	**5**	1	1	0
Legionellosis	**2**	**0**	**8**	**265**	14	13	8
Mercury Poisoning	**0**	**0**	**0**	**20**	0	0	0
Syphilis, Total	**15**	**15**	**121**	**n/a**	254	151	148
Syphilis, Infectious (Primary and Secondary)	**6**	**6**	**34**	**n/a**	86	51	45
Syphilis, Early Latent	**7**	**3**	**44**	**n/a**	85	61	55
Syphilis, Congenital	**0**	**0**	**0**	**n/a**	2	1	0
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	**2**	**6**	**43**	**n/a**	81	38	48
Tuberculosis	**1**	**0**	**4**	**n/a**	5	7	4
Vibrio Infections	**0**	**1**	**0**	**118**	2	5	2

***n/a—Data not available**

Florida Department of Health in Seminole County

400 W Airport Blvd, Sanford, FL 32773
Phone: 407-665-3000
http://seminole.floridahealth.gov

Donna Walsh, MPA, BSN, RN
Health Officer

Ana Scuteri, MPH
Assistant County Health Department Director

Sarah Alvarez Wright, MPH, BSN
Executive Community Health Nursing Director

Dr. Meena Joseph, MD
Medical Director

Vacant
Business & Community Relations Director

Mirna Chamorro
Public Information Officer

Epi Scope Editor

Kevin M. Baker, MPH, CPH, CHES
Epidemiology Program Manager

Disease Reporting

Epidemiology Program
Phone:
COVID-19: 407-665-3000, option 6
Non-COVID-19: 407-665-3243
Fax: 407-845-6055

Afterhours Urgent Disease Reporting and Consultations
Phone: 407-665-3000, option 1

Tuberculosis Program
Phone: 407-665-3243
Fax: 407-665-3279

STD Program
Phone: 407-665-3384
Fax: 407-845-6134

HIV/AIDS Program
Phone: 407-723-5065
Fax: 407-858-5985

Email Address*

DiseaseControlSeminole@FLHealth.gov

**Do not include any confidential information in email.*

ADDITIONAL INFORMATION AND RESOURCES

Florida Department of Health Websites

Florida Department of Health

Florida Department of Health in Seminole County

General Public Health Surveillance & Data Resources

Florida Statewide Weekly Influenza Surveillance Report—Flu Review

CDC U.S. Weekly Influenza Surveillance Report—FluView

Florida Health CHARTS—Public Health Data

Agency for Health Care Administration Data

COVID-19 Surveillance & Data Resources

Florida Department of Health—COVID-19 Data and Information

CDC—U.S. COVID-19 Data

World Health Organization—Nationwide COVID-19 Data

Practitioner Resources

Florida Department of Health Practitioner Disease Report Form

Florida Department of Health—Report Food and Waterborne Illness

Health Alerts and Advisories

CDC Travel Health Notices

FDA Food Recalls

Epi Scope Information

The Epi Scope is a monthly newsletter provided at no cost to consumers to share epidemiological data and trends, public health and health care guidance and current events to Seminole County stakeholders.

To subscribe to the Epi Scope distribution list, please visit the Florida Department of Health in Seminole County Epi Scope webpage.