FLORIDA DEPARTMENT OF HEALTH IN PINELLAS COUNTY

EPI WATCH

Monthly Epidemiology and Preparedness Newsletter

July 2014

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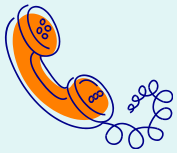
For more information, or to add your e-mail address to the distribution list, please contact the Editor.

Disease Reporting

To report diseases and clusters of illness
(*other than TB/STD/HIV/AIDS*)
Phone: (727) 507-4346
Fax: (727) 507-4347



For TB, STD or HIV/AIDS Reporting
Phone: (727) 824-6932

Animal Bite Reporting
Phone: (727) 524-4410 x7665

Changes to Rule 64D-3.029, *Florida Administrative Code,* Reportable Diseases and Conditions in Florida

All practitioners, hospitals, medical facilities, schools, nursing homes, laboratories, and other locations providing health services in Florida are required to notify the Florida Department of Health (DOH) of diseases or conditions of public health significance under Section 381.0031, *Florida Statutes* and Chapter 64D-3, *Florida Administrative Code* (*FAC*).

Revisions have been made to the ***Table of Reportable Diseases or Conditions to Be Reported*, Rule 64D-3.029, *FAC*, effective June 4, 2014**. Revisions in 2014 were made in part to comply with the Governor's rule reduction initiative to simplify and streamline language in all administrative rules. Additional changes were made to reflect current public health needs for disease reporting and to align with national public health priorities.

A short description of the revisions to rule 64D-3.029, *FAC*, is included below. The full text of the revised rule is posted on the Disease Reporting Information for Health Care Providers and Laboratories website (http://floridahealth.gov/diseasereporting).

Summary of changes for general communicable diseases reporting:

1. Removed diseases from the list of reportable diseases and conditions:
    a. Encephalitis, other (non-arboviral)
    b. Endemic typhus fever (*Rickettsia typhi*)
    c. Invasive streptococcal disease, group A
    d. *Staphylococcus aureus*, community-associated mortality
    e. Toxoplasmosis
2. Added diseases and conditions to the list of reportable diseases and conditions:
    a. Neonatal abstinence syndrome
3. Updated diseases and conditions on the list of reportable diseases and conditions:
    a. Arboviral infections not otherwise listed: now explicitly listed as reportable
    b. Possible exposure to herpes B virus: now explicitly listed as reportable (previously captured under possible exposure to rabies)
    c. Vibriosis: now includes other closely related species *Photobacterium damselae* (formerly *Vibrio damselae*) and *Grimontia hollisae* (formerly *Vibrio hollisae*)
    d. Rocky Mountain spotted fever: expanded to include all spotted fever rickettsioses
4. Separated health care provider and laboratory reporting requirements for organisms:
    a. Human papillomavirus (HPV)
        - Health care providers: health care providers are only required to report HPV-associated laryngeal papillomas or recurrent respiratory papillomatosis in children <6 years old and anogenital papillomas in children <12 years old.
        - Laboratories: laboratories participating in electronic laboratory reporting (ELR) are required to report all positive HPV DNA test results.
    a. *Haemophilus influenzae*
        - Health care providers: health care providers are only required to report invasive disease in children <5 years old.
        - Laboratories: laboratories participating in ELR are required to submit isolates from normally sterile sites from all ages.
    a. *Streptococcus pneumoniae*
        - Health care providers: health care providers are only required to report invasive disease in children <6 years old.
        - Laboratories: laboratories participating in ELR are required to submit isolates from normally sterile sites from all ages.
5. Updated viral hepatitis reporting requirements for laboratories:
    a. **All** laboratories should report:
        - Any associated viral hepatitis testing (positive and negative results) *after* an initial positive hepatitis result is received.
        - All liver function test results.
        - Pregnancy status at time of testing.
    b. Laboratories participating in **ELR** should report all tests (positive and negative), including screening tests (positive and negative), and pregnancy status at time of testing.
6. Expanded antimicrobial resistance surveillance by requiring laboratories participating in electronic laboratory reporting to report susceptibilities:
    a. All bacteria individually listed in the list of reportable diseases and conditions (e.g., *Neisseria meningitidis, Salmonella* species, *Neisseria gonorrhoeae*)
    b. *Acinetobacter baumannii*
    c. *Citrobacter* species
    d. *Enterococcus* species
    e. *Enterobacter* species
    f. *Escherichia coli*
    g. *Klebsiella* species
    h. *Pseudomonas aeruginosa*
    i. *Serratia* species
7. Added reporting of all (positive and negative) influenza and respiratory syncytial virus (RSV) results for all laboratories participating in ELR
8. Expanded required isolate submission to the Bureau of Public Health Laboratories to include:
    a. *Listeria monocytogenes*
    b. *Mycobacterium tuberculosis*

Thank you for your collaboration in helping to protect the health and safety of all Floridians and visitors. For further information, please contact the Epidemiology Program at 727-507-4346.

Naegleria fowleri and the Risk of Primary Amebic Meningoencephalitis

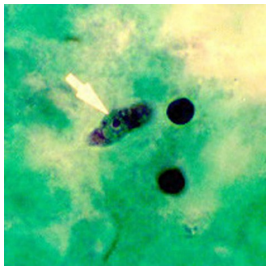
BY ANDREA LEAPLEY, MPH

Naegleria fowleri is an ameba that is found in warm freshwater such as lakes, rivers, and hot springs as well as in soil. When *N. fowleri* enters the body through the nose, it travels to the brain where it destroys brain tissue, causing a deadly infection called primary amebic meningoencephalitis (PAM). The first case of PAM was identified in Australia in 1965. The fatal infection occurred in 1961 and several years later, it was found to be caused by a newly identified organism, *Naegleria fowleri.* The first cases in the United States occurred in Florida in 1962, shortly after the Australian case. Subsequent retrospective pathology studies have found cases of PAM in Virginia dating back as far as 1937.

Individuals can become infected with *N. fowleri* when it enters the body through the nose. This is possible when a person goes swimming or diving in warm freshwater, uses contaminated water to cleanse their sinuses, or submerges their head or cleanses their sinuses for religious practices using contaminated water. In very rare occasions, infection can also occur when contaminated water from an inadequately chlorinated swimming pool or other recreational water enters the nose. You cannot be infected with *N. fowleri* by drinking contaminated water.

Symptoms of PAM are similar to those of bacterial meningitis. Symptoms begin approximately 5 days after infection (range 1-7 days) and can include a headache, fever, nausea, or vomiting. Symptoms can progress to include stiff neck, confusion, lack of attention to surroundings, loss of balance, seizures, and hallucinations. Once symptoms begin, the disease progresses rapidly and usually causes death within 5 days (range 1-12 days).

PAM is diagnosed in a laboratory by detecting *N. fowleri* organisms, *N. fowleri* nucleic acid or *N. fowleri* antigen in cerebrospinal fluid, biopsy, or tissue specimens through direct visualization, antigen detection, polymerase chain reaction (PCR), ameba culture, or environmental detection from a water sample. Diagnostic testing is not widely available. Clinicians who suspect PAM should contact their local health department and/or the Centers for Disease Control and Prevention's 24/7 Emergency Operation Center for assistance with diagnosis and treatment.



Trophozoite of *N. fowleri* in CSF
Source: CDC,
http://www.cdc.gov/dpdx/freeLiving

Treatment for *N. fowleri* infections is unclear. While there are several drugs effective against *N. fowleri* in the laboratory, almost all infections have been fatal in patients treated with similar drug combinations. There were two patients in 2013, one in Arkansas and one in Texas, who survived infection after treatment with a new drug called miltefosine given in combination with other drugs and aggressive management of brain swelling.

N. fowleri is found all around the world. The ameba is thermophilic and grows best in temperatures up to 115°F (45°C) though it can survive for short periods in higher temperatures. Of the 132 cases in the United States between 1962 and 2013, Florida has reported more than any other state (34), followed by Texas (32), and other southern states. Cases are most likely to occur in July, August, and September after prolonged periods of hot weather, which lead to lower water levels and higher water temperatures.

According to the Centers for Disease Control and Prevention, between 2004 and 2013, 34 infections were reported in the United States. Thirty patients were infected by contaminated recreational water, three were infected after using contaminated water to cleanse their sinuses, and one patient was infected by contaminated tap water used on a backyard slip and slide. However, the fatality rate for *N. fowleri* is over 97%. Of the 132 patients infected between 1962 and 2013, only 3 survived.

There is currently no reproducible and accurate way to test for the presence of amebae in water. To reduce the risk of *N. fowleri* infection, it is critical to prevent water from entering the nose while swimming or diving. When performing sinus cleansing or any other ritual ablutions, boil water for at least 1 minute, use a filter designed to remove organisms (filters certified by the National Sanitation Foundation labeled NSF 35 or NSF 58 or that are labeled "absolute pore size of 1 micron or smaller"), buy water with a label specifying that the water is distilled or sterile, or disinfect water using chlorine bleach. Make sure that the sinus irrigation device, such as a neti pot, is rinsed thoroughly between uses with safe water and left in the open air to dry completely.

PAM should be reported to your local health department immediately upon suspicion.

For more information on N. fowleri and PAM, visit the Centers for Disease Control and Prevention website: http://www.cdc.gov/parasites/naegleria/index.html

Selected Reportable Diseases in Pinellas County

Disease	Pinellas	Year-to-Date		Pinellas County Annual Totals		
	June 2014	Pinellas 2014	Florida 2014	2013	2012	2011
A. Vaccine Preventable						
Measles						
Mumps						
Pertussis	3	10	413	17	10	10
Varicella		10	319	19	16	21
B. CNS Diseases & Bacteremias						
Creutzfeldt-Jakob Disease (CJD)			12		2	3
H. influenzae (Invasive Disease)		6	177	12	7	10
Meningitis (Bacterial, Cryptococcal, Mycotic)		1	69	5	6	7
Meningococcal Disease			27	1		
S. Pneumoniae, Invasive Disease, Drug Resistant	1	10	306	24	16	22
S. Pneumoniae, Invasive Disease, Susceptible		10	316	11	25	11
C. Enteric Infections						
Campylobacteriosis	5	59	1079	63	59	83
Cryptosporidiosis	13	23	257	19	29	19
Cyclosporiasis			4	5	1	2
E. coli Shiga Toxin (+)	2	4	62	7	8	2
Giardiasis	1	14	527	34	32	27
Hemolytic Uremic Syndrome (HUS)			4	1		
Listeriosis			14		5	3
Salmonellosis	16	73	2051	203	203	225
Shigellosis		13	1335	5	18	93
D. Viral Hepatitis						
Hepatitis A		2	60	6	4	5
Hepatitis B: Pregnant Woman +HBsAg	5	18	262	17	16	29
Hepatitis B, Acute	5	12	204	39	16	10
Hepatitis C, Acute	3	12	103	17	5	13
E. Vector Borne, Zoonoses						
Animal Rabies			44			2
Rabies, possible exposure	18	92	1313	193	201	217
Dengue		1	31	2	3	1
Eastern Equine Encephalitis			1			
Lyme Disease		1	33	8	6	9
Malaria			23	1	2	1
St. Louis Encephalitis						
West Nile Virus						
F. Others						
AIDS**	26	78	n/a	118	130	123
HIV**	33	130	n/a	192	177	189
Chlamydia	311	1924	n/a	4141	3812	3863
Gonorrhea	106	630	n/a	1424	1029	1034
Hansen's Disease			2			
Lead Poisoning: Children < 6 years:		2		4	2	4
Legionellosis	1	6	115	10	13	13
Mercury Poisoning		2	5			2
Syphilis, Total	16	96	n/a	114	141	132
Syphilis, Infectious (Primary and Secondary)	3	27	n/a	52	61	66
Syphilis, Early Latent	6	36	n/a	37	47	35
Syphilis, Congenital			n/a			1
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	7	33	n/a	25	33	30
Tuberculosis	2	8	n/a	30	17	9
Vibrio Infections	2	5	57	11	10	11

n/a = not available at this time. Blank cells indicate no cases reported. Reportable diseases include confirmed and probable cases only. All case counts are provisional. Data is collected from the Merlin Reportable Disease database, surveillance systems maintained at the Florida Department of Health in Pinellas County, and Florida CHARTS http://www.floridacharts.com/charts/default.aspx.

*STD data is current as of 6/13/2014. STD data in PRISM is continually updated. Please note, data from the previous month takes up to an additional month or more to be correctly updated.

**Current HIV Infection data reflects any case meeting the CDC definition of "HIV infection" which includes all newly reported HIV cases and newly reported AIDS cases with no previous report of HIV. Newly reported HIV Infection cases do not imply they are all newly diagnosed cases. For a more detailed explanation on changes in reporting and changes in trends, please contact the Bureau of HIV/AIDS, Data Analysis Section.