



EPI WATCH

Monthly Epidemiology and Preparedness Newsletter

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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

World TB Day: The “Missed” Three Million

BY SHARLENE E. EDWARDS, MPH

World TB Day, falling on March 24 of each year, was created to build public awareness that tuberculosis (TB) today remains an epidemic in much of the world, causing the deaths of nearly one-and-a-half million people each year, mostly in developing countries. It commemorates the day in 1882 when Dr. Robert Koch astounded the scientific community by announcing that he had discovered the cause of tuberculosis, the TB bacillus. (*World Health Organization, 2014*)

Tuberculosis is curable, but our current effort to find, treat and cure everyone who gets ill with the disease is not sufficient. Of the nine million people a year who get sick with TB, a third of them are “missed” by public health systems; no one should be left behind in the fight against TB. This World TB Day, we call for an increased effort to find, treat and cure those who were “missed” and accelerate progress towards zero TB deaths, infections, suffering and stigma. (*World Health Organization, 2014*)



While reports of TB have declined in the United States since 1993, TB remains a significant issue, particularly in metropolitan areas. Trends show that in Pinellas County, the number of active TB cases has steadily declined since 2003. However, in 2013, Pinellas County had a 40% increase in the number of active cases reported compared to 2012. In addition to the active cases, for 2013 there were also over 200 newly identified Latent Tuberculosis Infections (LTBI).

How can you help? – Think TB!

To reach the three million globally we need to aggressively scale up TB programs and ensure access and coverage for all, especially for the most vulnerable groups. The Department of Health in Pinellas County (DOH-Pinellas) is committed to protecting residents across the county from the spread of TB by providing coordinated care to persons with active TB disease, their close contacts, and other persons at high risk for LTBI

Effective TB control requires prompt diagnosis of infectious cases through early suspicion and evaluation. Healthcare providers should recognize the signs and symptoms of TB to include (but may not be limited to): **coughing up blood (hemoptysis), weakness, loss of appetite, chest pains, anorexia, exposure to TB, significant skin test, weight loss, chills, failure to thrive, positive skin or blood test, malaise, fatigue, abnormal x-ray, night sweats, fever, difficult breathing, cough, and shortness of breath.**

The Tuberculin Skin Test (TST) or Interferon-Gamma Release Assay (IGRA) blood test can determine if someone has been exposed to TB; however further evaluation including chest x-ray, sputum specimen collection or biopsy of infected area (e.g. lymph nodes) must also be used to determine if a person has an active or latent form of the disease. DOH-Pinellas provides community healthcare providers with technical assistance related to the prevention, evaluation, and treatment of TB.

In Florida, by law, healthcare providers are required to report TB cases and suspects within 72 hours of diagnosis. In addition, each person in charge of a laboratory which performs cultures for mycobacteria or refers specimens for mycobacterial cultures to other laboratories is required to report all specimens positive for Mycobacterium tuberculosis, bovis or africanum within 72 hours. For more information on TB reporting requirements visit: <http://www.floridahealth.gov/diseases-and-conditions/tuberculosis/tb-professionals/>

For more information about the local prevention and control of TB visit: <http://www.pinellashealth.com/TB.asp>

Rabies: Prevention, Surveillance, & Control

BY MELISSA MORESCHI



Rabies is a zoonotic disease caused by viruses of the *Lyssavirus* genus. When an animal is infected with rabies, the virus can be transmitted through saliva or nervous tissue to another animal or person, usually through a bite. Rabies can also be transmitted by introducing the virus into open wounds in the skin or mucous membranes, or through transplanted organs.

All mammals are susceptible to the disease. In Florida, coyotes, bats, foxes, and raccoons are the most common animals found to be infected with rabies. Small rodents, including squirrels, rats, and rabbits, are considered low risk for transmission and almost never found to be infected. The likelihood of rabid domestic animals, such as dogs, cats, and ferrets, varies by geographic location. Ensuring that your pets are vaccinated against rabies can prevent them from acquiring the disease from wildlife

and possibly transmitting it to humans.

Human rabies is rare in the United States. According to the Centers for Disease Control and Prevention (CDC), in the past 50 years, human mortality from rabies has decreased to an average of 1-2 per year. A significant number of cases are a result of exposures outside of the US. Most deaths occur because individuals are unaware they have been exposed to and infected with the rabies virus, therefore not seeking proper post exposure treatment. From 1995-2011, there were 49 cases of human rabies reported in the United States. The last reported case of human rabies in Florida was in 2004. The case was exposed to rabies during a trip to Haiti where he was bitten on the fingertip by a dog.

The Florida Department of Health in Pinellas County (FDOH-Pinellas) and the Pinellas County Animal Services work together to investigate reports of animal bite incidents. Animal Services work to locate and isolate any suspected animals and arrange for testing as needed.

FDOH -Pinellas investigates bites or significant exposures to a human by an animal that is either infected with or suspected of being infected with rabies and works with healthcare providers to administer Post Exposure Prophylaxis (PEP) as indicated. In 2013, the FDOH- Pinellas investigated over 2,000 reports of possible exposure to rabies; however, 193 were determined to be confirmed cases of possible rabies exposures. A review of all the reports found that 79.6% of the animal bites were from domestic owned animals and 29.4% of animal bite victims owned the animal they were bitten by. Dog bites and exposures made up a total of 65.4% of the reports, followed by 29.7% involving cats and 2.7% wild animal exposures.



Top and above picture were obtained from www.cdc.gov. Above: Map of terrestrial rabies reservoirs in the United States during 2010.

Post Exposure Prophylaxis (PEP) is administered on a case-by-case basis. To determine who should receive PEP, consideration should be given to type of animal involved, type of contact by animal (scratch, bite, etc.), if the animal is available for observation or testing, whether it was provoked or unprovoked attack, and area of body affected. PEP recommendations are determined by a health care provider after completing a risk assessment. The initiation of PEP consists of a one-time dose of Human Rabies Immune Globulin (HRIG) and a series of 4 doses of rabies vaccine on day 0, 3, 7, and 14. For immune-compromised individuals, a 5th dose is given on the 28th day. If anatomically feasible, the wound or the surrounding area should be infiltrated with HRIG; however, HRIG and the vaccine should never be administered in the gluteal area due to reduced production of antibody. HRIG should not be administered to individuals previously vaccinated after 1980 and the vaccine should be administered on day 0 and day 3. For questions regarding the proper administration of PEP, please contact your local health department.

All animal bite events or exposures should be reported to your local health department immediately upon initial suspicion. Healthcare providers can contact FDOH-Pinellas by phone: 727-524-4410 x7665 or fax: 727-507-4347. Additional resources can be found here:

http://www.pinellashealth.com/Epidemiology/EPI_RabiesInfo.asp

The Rabies Prevention and Control in Florida Guide includes recommended policies and procedures for rabies prevention in Florida. To access this document and additional information on rabies prevention, surveillance, and control, please visit the following website:

<http://www.floridahealth.gov/diseases-and-conditions/rabies/index.html>

Selected Reportable Diseases in Pinellas County

Disease	Pinellas		Year-to-Date		Pinellas County Annual Totals		
	2014 February	Pinellas 2014	Florida 2014	2013	2012	2011	
A. Vaccine Preventable							
Mumps							
Pertussis	1	3	130	17	10	10	
B. CNS Diseases & Bacteremias							
Creutzfeldt-Jakob Disease (CJD)			1		2	3	
<i>H. influenzae</i> (Invasive Disease)	2	3	65	12	7	10	
Meningitis (Bacterial, Cryptococcal, Mycotic)		1	21	5	6	7	
Meningococcal Disease			11	1			
Streptococcal Disease, Group A, Invasive	2	6	83	12	6	3	
<i>S. Pneumoniae</i> , Invasive Disease, Drug Resistant	3	4	126	24	16	22	
<i>S. Pneumoniae</i> , Invasive Disease, Susceptible	3	4	156	11	25	11	
C. Enteric Infections							
Campylobacteriosis	15	24	331	63	59	83	
Cryptosporidiosis	4	4	88	19	29	19	
Cyclosporiasis			1	5	1	2	
<i>E. coli</i> Shiga Toxin (+)			26	7	8	2	
Giardiasis	1	1	154	34	32	27	
Hemolytic Uremic Syndrome (HUS)			2	1			
Listeriosis			6		5	3	
Salmonellosis	14	26	636	203	203	225	
Shigellosis	8	10	238	5	18	93	
D. Viral Hepatitis							
Hepatitis A			14	6	4	5	
Hepatitis B: Pregnant Woman +HBsAg			78	17	16	29	
Hepatitis B, Acute	2	3	58	39	16	10	
Hepatitis C, Acute	1	2	23	17	5	13	
E. Vector Borne, Zoonoses							
Animal Rabies			19			2	
Dengue	1	1	23	2	3	1	
Eastern Equine Encephalitis			1				
Lyme Disease		1	10	8	6	9	
Malaria			7	1	2	1	
Rabies, possible exposure	16	25	420	193	201	217	
St. Louis Encephalitis							
West Nile Virus							
F. Others							
AIDS**	7	19	n/a	123	130	123	
Chlamydia	312	636	n/a	4155	3812	3863	
Gonorrhea	108	229	n/a	1429	1029	1034	
Hansen's Disease							
HIV**	21	47	n/a	203	177	189	
Lead Poisoning: Children < 6 years:		1	28	4	2	4	
Legionellosis		1	33	10	13	13	
Mercury Poisoning		2	3			2	
Syphilis, Total	16	29	n/a	114	141	132	
Syphilis, Infectious (Primary and Secondary)	5	12	n/a	52	61	66	
Syphilis, Early Latent	3	6	n/a	37	47	35	
Syphilis, Congenital			n/a			1	
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	8	11	n/a	25	33	30	
Tuberculosis		1	n/a	28	17	9	
<i>Vibrio</i> Infections	1	1	7	11	10	11	

n/a = not available at this time. Blank cells indicate no cases reported.

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>.

** 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 HIV/AIDS Program, 727-824-6932, or the Florida Department of Health, Bureau of HIV/AIDS, Data Analysis Section 850-245-4334.