Florida Department of Health - Hillsborough County
Disease Surveillance Newsletter
June 2016

EpiNotes

Director
Douglas Holt, MD
813.307.8008

Medical Director (HIV/STD/EPI)
Charurut Somboonwit, MD
813.307.8008

Medical Director (TB/Refugee)
Beata Casanas, MD
813.307.8008

Medical Director (Vaccine Outreach)
Jamie P. Morano, MD, MPH
813.307.8008

Community Health Director
Leslene Gordon, PhD, RD, LD/N
813.307.8015 x7107

Disease Control Director
Faye Coe, RN
813.307.8015 x6321

Environmental Administrator
Brian Miller, RS
813.307.8015 x5901

Epidemiology
Warren R. McDougle Jr., MPH
813.307.8010 Fax 813.276.2981

TO REPORT A DISEASE:

Epidemiology
813.307.8010

After Hours Emergency
813.307.8000

Food and Waterborne Illness
Patrick Rodriguez
813.307.8015 x5944 Fax 813.272.7242

HIV/AIDS Surveillance
Erica Botting
813.307.8011

Lead Poisoning
Cynthia O. Keeton
813.307.8015 x7108 Fax 813.272.6915

Sexually Transmitted Disease
Carlos Mercado
813.307.8045 Fax 813.307.8027

Tuberculosis
Irma B. Polster
813.307.8015 x4758 Fax 813.975.2014

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Zika Fever Update – As of June 30, 2016

County	Number of Cases (all travel related)
Alachua	4
Brevard	4
Broward	33
Citrus	1
Clay	2
Collier	3
Duval	3
Escambia	1
Highlands	1
Hillsborough	5
Lee	5
Martin	1
Miami-Dade	68
Okaloosa	1
Orange	17
Osceola	9
Palm Beach	12
Pasco	2
Pinellas	6
Polk	4
Santa Rosa	1
Seminole	8
St. Johns	2
Volusia	2
Total cases not involving pregnant women	**195**
Cases involving pregnant women regardless of symptoms*	**41**

*Counties of pregnant women will not be shared. All cases are travel-associated. **There have been no locally-acquired cases of Zika in Florida**. For more information on the Zika virus, click here.

Informational Links

CDC HAN 392: CDC Recommendations for Subsequent Zika IgM Antibody Testing - Testing for Zika virus infection using real-time reverse-transcription polymerase chain reaction (rRT-PCR) molecular assays is now commercially available. When requesting Zika rRT-PCR testing from a commercial laboratory, providers should be aware that commercial laboratories performing rRT-PCR currently do not also offer Zika IgM enzyme-linked immunosorbent assay (ELISA) or confirmatory serologic testing (plaque reduction neutralization test, or PRNT). Therefore, if possible, providers should store a serum aliquot for subsequent Zika IgM ELISA testing if the rRT-PCR assay is negative. Otherwise, collection of an additional serum sample may be necessary.

CDC HAN 391: Best Practices for Using PCR to Diagnose Haemophilus influenzae and Neisseria meningitidis and Identify Serotype or Serogroup - Determining serotype for Haemophilus influenzae (Hi) and serogroup for Neisseria meningitidis (Nm) is crucial for identifying potential outbreaks and determining appropriate public health responses. Several new commercial multiplex polymerase chain reaction (PCR) assays capable of simultaneously testing a single specimen for an array of pathogens that cause blood infections, meningitis, or encephalitis are available. These assays can rapidly identify Hi and Nm species, but most do not determine serotype or serogroup. Laboratories should continue to perform culture and use validated, specific real-time PCR assays capable of detecting and differentiating all six serotypes (a-f) of Hi and six serogroups (A, B, C, W, X, and Y) of Nm; otherwise, additional steps need to be taken including performing a reflex culture or at a minimum retaining a clinical sample for further testing.

CDC HAN 390: Alert to U.S. Healthcare Facilities: First mcr-1 Gene in E. coli Bacteria found in a Human in the United States - The Centers for Disease Control and Prevention (CDC) is collaborating in a coordinated public health response to the Department of Defense (DoD) announcement on May 26 of the first mcr-1 gene found in bacteria from a human in the United States. Escherichia coli (E. coli) bacteria carrying the mcr-1 gene were found in a urine sample from a person in Pennsylvania with no recent travel outside of the United States who presented to a clinic with a urinary tract infection. The mcr-1 gene makes bacteria resistant to the antibiotic colistin, which is used as a last-resort drug to treat patients with infections caused by multidrug-resistant bacteria, including carbapenem-resistant Enterobacteriaceae (CRE). The mcr-1 gene exists on a plasmid, a small piece of DNA that is capable of moving from one bacterium to another, potentially spreading antibiotic resistance to other bacterial species. CDC is issuing this HAN notice as a reminder to U.S. healthcare facilities about recommendations to prevent antibiotic resistant infections and alert them to additional recommendations for detecting and reporting bacteria with the mcr-1 gene.

Reportable Disease Surveillance Data

Disease Category	Annual Totals			3 Year Average	Year-To-Date	
	2013	2014	2015**		Jan – May 15	Jan – May 16
Vaccine Preventable Diseases						
Diphtheria	0	0	0	0.00	0	0
Measles	0	0	0	0.00	0	0
Mumps	0	2	1	1.00	0	0
Pertussis	94	65	41	66.67	18	32
Poliomyelitis	0	0	0	0.00	0	0
Rubella	0	0	0	0.00	0	1
Smallpox	0	0	0	0.00	0	0
Tetanus	0	0	0	0.00	0	0
Varicella	65	59	74	66.00	31	27
CNS Diseases & Bacteremias						
Creutzfeldt-Jakob Disease	1	1	3	1.67	2	2
H. influenzae (Invasive Disease in children <5)	2	3	2	2.33	1	1
Listeriosis	5	2	2	3.00	0	0
Meningitis (Bacterial, Cryptococcal, Mycotic)	11	12	16	13.00	5	3
Meningococcal Disease	6	3	2	3.67	2	2
Staphylococcus aureus (VISA, VRSA)	1	0	0	0.33	0	0
S. pneumoniae (Invasive Disease in children <6)	8	5	3	5.33	1	1
Enteric Infections						
Campylobacteriosis	134	189	276	199.67	104	111
Cholera	0	0	0	0.00	0	0
Cryptosporidiosis	59	354	99	170.67	29	34
Cyclospora	9	4	1	4.67	0	0
Escherichia coli, Shiga toxin-producing (STEC)	30	19	28	25.67	14	11
Giardiasis	56	64	55	58.33	15	41
Hemolytic Uremic Syndrome	2	1	2	1.67	1	1
Salmonellosis	297	361	307	321.67	75	103
Shigellosis	63	68	239	123.33	130	15
Typhoid Fever	0	0	0	0.00	0	1
Viral Hepatitis						
Hepatitis A	10	5	5	6.67	3	1
Hepatitis B (Acute)	56	59	67	60.67	22	12
Hepatitis C (Acute)	38	29	47	38.00	17	16
Hepatitis +HBsAg in Pregnant Women	30	35	28	31.00	9	19
Hepatitis D, E, G	0	0	1	0.33	0	0

Reportable Disease Surveillance Data

Disease Category	Annual Totals			3 Year Average	Year-To-Date	
	2013	2014	2015**		Jan – May 15	Jan – May 16
Vectorborne, Zoonoses						
Chikungunya	N/A	34	9	N/A	8	1
Dengue	4	6	7	5.67	2	2
Eastern Equine Encephalitis	1	0	0	0.33	0	0
Ehrlichiosis/Anaplasmosis	2	2	0	1.33	0	0
Leptospirosis	0	0	1	0.33	0	0
Lyme Disease	12	11	16	13.00	2	0
Malaria	8	11	2	7.00	1	1
Plague	0	0	0	0.00	0	0
Psittacosis	0	0	0	0.00	0	0
Q Fever (Acute and Chronic)	0	0	0	0.00	0	0
Rabies (Animal)	5	4	3	4.00	1	2
Rabies (Human)	0	0	0	0.00	0	0
Rocky Mountain Spotted Fever	1	0	0	0.33	0	0
St. Louis Encephalitis	0	0	0	0.00	0	0
Trichinellosis	0	0	0	0.00	0	0
Tularemia	0	0	0	0.00	0	0
Typhus Fever (Epidemic)	0	0	0	0.00	0	0
Venezuelan Equine Encephalitis	0	0	0	0.00	0	0
West Nile Virus	0	0	2	0.67	0	0
Western Equine Encephalitis	0	0	0	0.00	0	0
Yellow Fever	0	0	0	0.00	0	0
Zika Fever	NA	NA	NA	NA	NA	4
Others						
Anthrax	0	0	0	0.00	0	0
Botulism, Foodborne	0	0	0	0.00	0	0
Botulism, Infant	0	0	0	0.00	0	0
Brucellosis	0	0	0	0.00	0	0
Glanders	0	0	0	0.00	0	0
Hansen's Disease (Leprosy)	2	0	0	0.67	0	0
Hantavirus Infection	0	0	0	0.00	0	0
Legionellosis	18	8	21	15.67	7	3
Melioidosis	0	0	0	0.00	0	0
Vibriosis	13	7	11	10.33	1	1

Reportable Disease Surveillance Data

Disease Category	Annual Totals			3 Year Average	Year-To-Date	
	2013	2014	2015**		Jan – May 15	Jan – May 16
Chemicals/Poisoning						
Arsenic	0	0	0	0.00	0	0
Carbon Monoxide	5	22	27	18.00	6	14
Lead	173	243	297	237.67	102	62
Mercury	0	0	13	4.33	0	0
Pesticide	13	39	38	30.00	14	0
Influenza						
Influenza, Pediatric Associated Mortality	1	1	0	0.67	0	0
Influenza, Novel or Pandemic Strain	0	0	0	0.00	0	0
HIV/AIDS*						
AIDS	216	180	197	197.67	79	89
HIV Infection	324	330	406	353.33	128	198
STDs						
Chlamydia	7913	7304	7490	7569.00	3046	3524
Gonorrhea	2031	1848	1996	1958.33	707	940
Syphilis, Congenital	4	4	3	3.67	3	0
Syphilis, Latent	156	166	183	168.33	94	90
Syphilis, Early	349	141	149	213.00	59	86
Syphilis, Infectious	334	208	227	256.33	92	105
Tuberculosis						
TB	53	49	41	47.67	11	13
Food and Waterborne Illness Outbreaks						
Food and Waterborne Cases	73	58	27	52.67	0	0
Food and Waterborne Outbreaks	4	3	2	3.00	0	0

"Current HIV Infection data by year of report 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 in Florida. If a case is later identified as being previously diagnosed and reported from another state, the case will no longer be reflected as a Florida case and the data will be adjusted accordingly. Data from the most recent calendar years (2015 and 2016) are considered provisional and therefore should not be used to confirm or rule out an increase in newly reported cases in Florida. The final year-end numbers are generated in July of the following year, after duplicate cases are removed from the dataset, as is customary of HIV surveillance in the US.

**Tables include preliminary confirmed and probable cases reported in Florida residents (regardless of where infection was acquired) by date reported to the Bureau of Epidemiology as captured in the reportable disease surveillance system (Merlin). Merlin data for 2015 were finalized in April 2016 and case counts for 2016 will be finalized in April 2017. Data for 2016 are preliminary and will change. Preliminary case counts are current as of the date and time above, but may change. A percentage of cases will be determined not to be cases after additional review and this percentage varies by disease. For example, 4% of meningococcal cases reported in 2014 were later determined not to be true cases and were removed from final case counts. Counts presented in these tables may differ from counts presented in other tables or reports, depending on the criteria used. Changes in case definitions can result in dramatic changes in case counts. Please see Florida Surveillance Case Definitions on the Bureau of Epidemiology for information on case definition changes (http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/case-definition-archive.html).

Reportable Diseases/Conditions in Florida

Practitioner List (Laboratory Requirements Differ)

Effective June 4, 2014

Did you know that you are required* to report certain diseases to your local county health department?

FDOH-Hillsborough Disease Reporting Telephone and Fax Numbers
HIV/AIDS -813.307.8011 (DO NOT FAX) STD -813.307.8045 Fax -813.307.8027
TB -813.307.8015 X4758 Fax -813.975.2014
All Others/Epidemiology -813.307.8010 Fax -813.276.2981
After Hours Reporting All Diseases -813.307.8000

! Report immediately 24/7 by phone upon initial suspicion or laboratory test order
☎ Report immediately 24/7 by phone
• Report next business day
+ Other reporting timeframe

Birth Defects — 850.245.4444 x2198

+ Congenital anomalies
+ Neonatal abstinence syndrome (NAS)

Cancer — Tumor Registry Database

+ Cancer, excluding non-melanoma skin cancer and including benign and borderline intracranial and CNS tumors

HIV/AIDS — 813.307.8011

+ Acquired immune deficiency syndrome (AIDS)
+ Human immunodeficiency virus (HIV) infection
• HIV, exposed infants <18 months old born to an HIV-infected woman

STDs — 813.307.8045

• Chancroid
• Chlamydia
• Conjunctivitis in neonates <14 days old
• Gonorrhea
• Granuloma inguinale
• Herpes simplex virus (HSV) in infants <60 days old with disseminated infection and liver involvement; encephalitis; and infections limited to skin, eyes, and mouth; anogenital HSV in children <12 years old
• Human papillomavirus (HPV), associated laryngeal papillomas or recurrent respiratory papillomatosis in children <6 years old; anogenital papillomas in children <12 years old
• Lymphogranuloma venereum (LGV)
• Syphilis
☎ Syphilis in pregnant women and neonates

Tuberculosis — 813.307.8015 x4758

• Tuberculosis (TB)

All Others — 813.307.8010

! Outbreaks of any disease, any case, cluster of cases, or exposure to an infectious or non-infectious disease, condition, or agent found in the general community or any defined setting (e.g., hospital, school, other institution) not listed that is of urgent public health significance
☎ Amebic encephalitis
! Anthrax
• Arsenic poisoning
• Arboviral diseases not otherwise listed
! Botulism, foodborne, wound, and unspecified
• Botulism, infant
! Brucellosis
• California serogroup virus disease
• Campylobacteriosis
• Carbon monoxide poisoning
• Chikungunya fever
☎ Chikungunya fever, locally acquired
! Cholera (*Vibrio cholerae* type O1)
• Ciguatera fish poisoning
• Creutzfeldt-Jakob disease (CJD)
• Cryptosporidiosis
• Cyclosporiasis
• Dengue fever
☎ Dengue fever, locally acquired
! Diphtheria
• Eastern equine encephalitis
• Ehrlichiosis/anaplasmosis
• *Escherichia coli* infection, Shiga toxin-producing
• Giardiasis, acute
! Glanders
! *Haemophilus influenzae* invasive disease in children <5 years old
• Hansen's disease (leprosy)
☎ Hantavirus infection
☎ Hemolytic uremic syndrome (HUS)
☎ Hepatitis A
• Hepatitis B, C, D, E, and G
• Hepatitis B surface antigen in pregnant women or children <2 years old
☎ Herpes B virus, possible exposure
! Influenza A, novel or pandemic strains
☎ Influenza-associated pediatric mortality in children <18 years old
• Lead poisoning
• Legionellosis
• Leptospirosis
☎ Listeriosis
• Lyme disease
• Malaria
! Measles (rubeola)
! Melioidosis
• Meningitis, bacterial or mycotic
! Meningococcal disease
• Mercury poisoning
• Mumps
☎ Neurotoxic shellfish poisoning
☎ Pertussis
• Pesticide-related illness and injury, acute
! Plague
! Poliomyelitis
• Psittacosis (ornithosis)
• Q Fever
☎ Rabies, animal or human
! Rabies, possible exposure
! Ricin toxin poisoning
• Rocky Mountain spotted fever and other spotted fever rickettsioses
! Rubella
• St. Louis encephalitis
• Salmonellosis
• Saxitoxin poisoning (paralytic shellfish poisoning)
! Severe acute respiratory disease syndrome associated with coronavirus infection
• Shigellosis
! Smallpox
☎ Staphylococcal enterotoxin B poisoning
☎ *Staphylococcus aureus* infection, intermediate or full resistance to vancomycin (VISA, VRSA)
• *Streptococcus pneumoniae* invasive disease in children <6 years old
• Tetanus
• Trichinellosis (trichinosis)
! Tularemia
☎ Typhoid fever (*Salmonella* serotype Typhi)
! Typhus fever, epidemic
! Vaccinia disease
• Varicella (chickenpox)
! Venezuelan equine encephalitis
• Vibriosis (infections of *Vibrio* species and closely related organisms, excluding *Vibrio cholerae* type O1)
! Viral hemorrhagic fevers
• West Nile virus disease
! Yellow fever

*Section 381.0031 (2), *Florida Statutes* (*F.S.*), provides that "Any practitioner licensed in this state to practice medicine, osteopathic medicine, chiropractic medicine, naturopathy, or veterinary medicine; any hospital licensed under part I of chapter 395; or any laboratory licensed under chapter 483 that diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health." Florida's county health departments serve as the Department's representative in this reporting requirement. Furthermore, Section 381.0031 (4), *F.S.* provides that "The department shall periodically issue a list of infectious or noninfectious diseases determined by it to be a threat to public health and therefore of significance to public health and shall furnish a copy of the list to the practitioners…"

Florida Department of Health, Practitioner Disease Report Form

Complete the following information to notify the Florida Department of Health of a reportable disease or condition, as required by Chapter 64D-3, *Florida Administrative Code* (*FAC*). This can be filled in electronically.

Print Form

Patient Information

SSN: _____

Last name: _____

First name: _____

Middle: _____

Parent name: _____

Gender: ◯ Male ◯ Female ◯ Unk

Pregnant: ◯ Yes ◯ No ◯ Unk

Birth date: _____ **Death date:** _____

Race: ◯ American Indian/Alaska Native ◯ Asian/Pacific Islander ◯ Black ◯ White ◯ Other ◯ Unk

Ethnicity: ◯ Hispanic ◯ Non-Hispanic ◯ Unk

Address: _____

ZIP: _____ **County:** _____

City: _____ **State:** _____

Home phone: _____

Other phone: _____

Emer. phone: _____

Email: _____

Medical Information

MRN: _____

Date onset: _____ **Date diagnosis:** _____

Died: ◯ Yes ◯ No ◯ Unk

Hospitalized: ◯ Yes ◯ No ◯ Unk

Hospital name: _____

Date admitted: _____ Date discharged: _____

Insurance: _____

Treated: ◯ Yes ◯ No ◯ Unk

Specify treatment:

Laboratory testing: ◯ Yes ◯ No ◯ Unk Attach laboratory result(s) if available.

Provider Information

Physician: _____

Address: _____

City: _____ **State:** _____ **ZIP:** _____

Phone: _____ **Fax:** _____

Email: _____

Reportable Diseases and Conditions in Florida

! Notify upon suspicion 24/7 by phone **☎ Notify upon diagnosis 24/7 by phone**

HIV/AIDS and HIV-exposed newborn notification should be made using the Adult HIV/AIDS Confidential Case Report Form, CDC 50.42A (revised March 2013) for cases in people ≥13 years old or the Pediatric HIV/AIDS Confidential Case Report, CDC 50.42B (revised March 2003) for cases in people <13 years old. Please contact your local county health department for these forms (visit http://floridahealth.gov/chdepicontact to obtain CHD contact information). **Congenital anomalies** and **neonatal abstinence syndrome** notification occurs when these conditions are reported to the Agency for Health Care Administration in its inpatient discharge data report pursuant to Chapter 59E-7 *FAC*. **Cancer** notification should be directly to the Florida Cancer Data System (see http://fcds.med.miami.edu). All other notifications should be to the CHD where the patient resides.
To obtain CHD contact information, see http://floridahealth.gov/chdepicontact. See http://floridahealth.gov/diseasereporting for other reporting questions.

- ☎ ☐ Amebic encephalitis
- ! ☐ Anthrax
- ☐ Arsenic poisoning
- ☐ Arboviral disease not listed here
- ☐ Botulism, infant
- ! ☐ Botulism, foodborne
- ! ☐ Botulism, wound or unspecified
- ! ☐ Brucellosis
- ☐ California serogroup virus disease
- ☐ Campylobacteriosis
- ☐ Carbon monoxide poisoning
- ☐ Chancroid
- ☐ Chikungunya fever
- ☎ ☐ Chikungunya fever, locally acquired
- ☐ Chlamydia
- ! ☐ Cholera (*Vibrio cholerae* type O1)
- ☐ Ciguatera fish poisoning
- ☐ Conjunctivitis in neonate <14 days old
- ☐ Creutzfeldt-Jakob disease (CJD)
- ☐ Cryptosporidiosis
- ☐ Cyclosporiasis
- ☐ Dengue fever
- ☎ ☐ Dengue fever, locally acquired
- ! ☐ Diphtheria
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- ☐ *Escherichia coli* infection, Shiga toxin-producing
- ☐ Giardiasis, acute
- ! ☐ Glanders
- ☐ Gonorrhea
- ☐ Granuloma inguinale
- ! ☐ *Haemophilus influenzae* invasive disease in child <5 years old
- ☐ Hansen's disease (leprosy)
- ☎ ☐ Hantavirus infection
- ☎ ☐ Hemolytic uremic syndrome (HUS)
- ☎ ☐ Hepatitis A
- ☐ Hepatitis B, C, D, E, and G
- ☐ Hepatitis B surface antigen in pregnant woman or child <2 years old
- ☎ ☐ Herpes B virus, possible exposure
- ☐ Herpes simplex virus (HSV) in infant <60 days old
- ☐ HSV, anogenital in child <12 years old
- ☐ Human papillomavirus (HPV), laryngeal papillomas or recurrent respiratory papillomatosis in child <6 years old
- ☐ HPV, anogenital papillomas in child <12 years old
- ! ☐ Influenza A, novel or pandemic strains
- ☎ ☐ Influenza-associated pediatric mortality in child <18 years old
- ☐ Lead poisoning
- ☐ Legionellosis
- ☐ Leptospirosis
- ☎ ☐ Listeriosis
- ☐ Lyme disease
- ☐ Lymphogranuloma venereum (LGV)
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- ! ☐ Melioidosis
- ☐ Meningitis, bacterial or mycotic
- ! ☐ Meningococcal disease
- ☐ Mercury poisoning
- ☐ Mumps
- ☎ ☐ Neurotoxic shellfish poisoning
- ☎ ☐ Pertussis
- ☐ Pesticide-related illness and injury, acute
- ! ☐ Plague
- ! ☐ Poliomyelitis
- ☐ Psittacosis (ornithosis)
- ☐ Q Fever
- ☎ ☐ Rabies, animal
- ☎ ☐ Rabies, human
- ! ☐ Rabies, possible exposure
- ! ☐ Ricin toxin poisoning
- ☐ Rocky Mountain spotted fever or other spotted fever rickettsiosis
- ! ☐ Rubella
- ☐ St. Louis encephalitis
- ☐ Salmonellosis
- ☐ Saxitoxin poisoning (paralytic shellfish poisoning)
- ! ☐ Severe acute respiratory disease syndrome associated with coronavirus infection
- ☐ Shigellosis
- ! ☐ Smallpox
- ☎ ☐ *Staphylococcus aureus* infection, intermediate or full resistance to vancomycin (VISA, VRSA)
- ☎ ☐ Staphylococcal enterotoxin B poisoning
- ☐ *Streptococcus pneumoniae* invasive disease in child <6 years old
- ☐ Syphilis
- ☎ ☐ Syphilis in pregnant woman or neonate
- ☐ Tetanus
- ☐ Trichinellosis (trichinosis)
- ☐ Tuberculosis (TB)
- ! ☐ Tularemia
- ☎ ☐ Typhoid fever (*Salmonella* serotype Typhi)
- ! ☐ Typhus fever, epidemic
- ! ☐ Vaccinia disease
- ☐ Varicella (chickenpox)
- ! ☐ Venezuelan equine encephalitis
- ☐ Vibriosis (infections of *Vibrio* species and closely related organisms, excluding *Vibrio cholerae* type O1)
- ! ☐ Viral hemorrhagic fevers
- ☐ West Nile virus disease
- ! ☐ Yellow fever
- ! ☐ Outbreaks of any disease, any case, cluster of cases, or exposure to an infectious or non-infectious disease, condition, or agent found in the general community or any defined setting (e.g., hospital, school, other institution) not listed above that is of urgent public health significance. Please specify:

Comments

Revised June 4, 2014

June 7, 2016

Dear Health Care Provider,

Real time reverse-transcriptase polymerase chain reaction (RT-PCR) test for Zika virus detection is now commercially available for both urine and serum at Quest Diagnostics and LabCorp. Pricing is available for uninsured patients as well as insured patients at Quest Diagnostics.

- Zika RT-PCR testing using urine or serum is now available at commercial laboratories.
- Florida Department of Health (DOH) laboratories will continue to provide Zika IgM testing on serum and RT-PCR testing on specimen types such as amniotic fluid, placenta, semen, and cerebral spinal fluid for patients meeting testing criteria.
- CDC recommends RT-PCR testing of urine collected within 14 days of symptom onset. A recent study suggests RT-PCR on urine may detect Zika virus longer and more consistently than serum:
  - www.cdc.gov/mmwr/volumes/65/wr/mm6518e1.htm?s_cid=mm6518e1_w
  - www.cdc.gov/mmwr/volumes/65/wr/mm6518e2.htm?s_cid=mm6518e2_w
- The optimal time to perform Zika virus RT-PCR testing on serum samples is during the first week of illness per the Centers for Disease Control and Prevention (CDC).
- **Clinicians are still required to report suspected Zika fever cases to their county health departments at the time testing is ordered, regardless of which lab performs the testing, to ensure appropriate mosquito control actions are taken.**

Specimens should be submitted for Zika virus IgM serum antibody testing and Zika virus RT-PCR testing for urine, serum, semen, amniotic fluid or placenta as appropriate for the following:

- Pregnant women who, while pregnant, **traveled to an area reporting Zika virus activity** regardless of the length of time since the travel/illness occurred, but ideally within 2-12 weeks of travel. Recommended testing is Zika IgM serum antibody testing.
- All persons, including pregnant women, with two or more of the following signs/symptoms: fever, maculopapular rash, arthralgia or conjunctivitis (Guillain–Barré syndrome could follow) **and** a history of travel to an area reporting Zika virus activity in the two weeks prior to illness onset **or** suspect local cases should be immediately reported. Recommended testing is urine and serum Zika RT-PCR, and Zika IgM serum antibody testing.
- The mother of an infant or fetus with microcephaly or intracranial calcifications or poor fetal outcome diagnosed after the first trimester **and** with history of travel to an area with Zika virus activity during pregnancy. Both mother and infant may be tested. Recommended samples and testing: (1) serum from mother for Zika IgM antibody testing; (2) cord blood and / or serum from infant for Zika RT-PCR and IgM antibody testing; (3) infant urine for Zika RT-PCR; and (4) fresh and formalin-fixed placenta for Zika RT-PCR and immunohistochemistry (IHC). Amniotic fluid can be tested using Zika RT-PCR if needed.

- Please contact your county health department to request Zika virus testing for patients without insurance.

To report suspect Zika virus cases or request testing at DOH, please contact your county health department: www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/index.html.

Thank you for supporting public health!

Sincerely,

Anna M. Likos, MD, MPH
Acting Deputy Secretary for Health

Zika Fever: Information for Clinicians

Version 2.0 (June 7, 2016)

DOH: www.flhealth.gov/zika
CDC: www.cdc.gov/zika/

Please contact your county health department immediately if you suspect a patient has Zika fever to ensure prompt mosquito control efforts.

Zika fever, a dengue-like illness caused by a mosquito-borne flavivirus, has been identified in numerous countries in Central and South America, Mexico and the Caribbean including Puerto Rico. **Zika virus infection during pregnancy can cause certain birth defects including microcephaly**. Fetuses and infants of women infected with Zika virus during pregnancy should be evaluated for possible congenital infection and neurologic abnormalities. Possible links to Zika virus infection and Guillain-Barre syndrome (GBS) are also suspected.

Transmission occurs through the bite of an infected mosquito. Perinatal, in utero, sexual and transfusion transmissions have also been reported. **Suspect Zika fever cases should be advised to avoid mosquito bites while ill to prevent infection of local mosquitoes.** Potentially infected men with pregnant partners should either abstain from sex or use condoms consistently and correctly during intercourse for the duration of the pregnancy.

Incubation period is approximately 2 to 14 days.

Clinical Presentation: Only about 1 in 5 people infected with Zika virus are symptomatic. Zika fever is a mild illness with symptoms similar to those of mild dengue fever. Severe disease requiring hospitalization is uncommon. Treatment is symptomatic and illness typically resolves within a week. Co-infections with dengue or chikungunya are possible and should be considered. Aspirin and other non-steroidal anti-inflammatory drugs are not advised in case of co-infection with dengue. Pregnant women with fever should be treated with acetaminophen. Signs/symptoms of Zika fever may include:

- Acute fever (often low grade)
- Maculopapular rash
- Arthralgia
- Conjunctivitis
- Myalgia
- Headache
- Retro-orbital pain
- Vomiting

Laboratory testing: Polymerase chain reaction (PCR) can be used to detect viral RNA in serum and urine during the first week of illness and in urine alone for samples collected one to three weeks after illness onset. Serum antibody tests are recommended for samples collected ≥4 days after illness onset. However, cross-reaction with related flaviviruses (e.g. dengue) is common and results may be difficult to interpret. Dengue IgM antibody testing should be run on samples from patients with positive Zika IgM antibody tests due to cross-reactivity. Zika virus PCR testing of serum and urine is currently commercially available. Zika virus PCR testing for samples other than serum and urine, as well as Zika IgM antibody testing, is available at Florida Department of Health for patients who meet the following testing criteria.

Please contact your county health department to request Zika virus testing for patients meeting the following criteria:

- All persons, including pregnant women, with two or more of the following signs/symptoms: fever, maculopapular rash, arthralgia or conjunctivitis (GBS could follow) **and** a history of travel to an area reporting Zika virus activity in the two weeks prior to illness onset **or** is a suspect local case should be immediately reported and tested.

OR

- Mother of an infant or fetus with microcephaly or intracranial calcifications or poor fetal outcome diagnosed after the first trimester **and** with history of travel to an area with Zika virus activity during pregnancy should be immediately reported. Testing of both mother and infant is recommended.

OR

- Pregnant women who, while pregnant, **traveled to an area reporting Zika virus activity** regardless of the length of time since the travel/illness occurred, but ideally within 2-12 weeks of travel may also be tested.

Zika Fever: Information for Obstetricians

Version 2.0 (May 12, 2016)

DOH: www.flhealth.gov/zika
CDC: www.cdc.gov/zika/
CDC microcephaly: www.cdc.gov/ncbddd/birthdefects/microcephaly.html

FloridaHealth.gov • Florida Department of Health

Zika fever has been identified in South and Central America as well as Mexico and the Caribbean including Puerto Rico and the U.S. Virgin Islands. **Zika virus infection during pregnancy can cause certain birth defects including microcephaly.** In response, the Centers for Disease Control and Prevention (CDC) issued guidance recommending:

- Pregnant women in any trimester should consider postponing travel to areas where Zika virus transmission is ongoing. Pregnant women who must travel to these areas should talk to their doctor or other health care provider first and strictly follow steps to avoid mosquito bites during the trip.
- In addition, CDC recommends that pregnant women and their male sexual partners should consistently and correctly use condoms or abstain from sex for the duration of the pregnancy if the male partner traveled to an area with Zika virus activity.
- Women trying to become pregnant should consult with their health care provider before traveling to areas with Zika virus activity and strictly follow steps to prevent mosquito bites during the trip. Couples should consider delaying attempts to become pregnant for 2 months following either partner's travel. Couples should consider delaying attempts to become pregnant for 6 months if male partners experienced signs/symptoms of Zika fever during or within two weeks of travel.
- Fetuses and infants of women infected with Zika virus during pregnancy should be evaluated for possible congenital infection and neurologic abnormalities, including microcephaly or intracranial calcifications.

Transmission occurs through the bite of an infected mosquito. Perinatal, in utero, sexual transmission has been reported but, to date, transmission through breastfeeding has not been reported.

Pregnant women or women trying to become pregnant who decide to travel to areas with Zika virus activity should take appropriate precautions to avoid mosquito bites.

- **Bring EPA registered insect repellant** with any of the following active ingredients
  - DEET
  - Picaridin
  - Oil of lemon eucalyptus
  - IR3535
  - It is safe for pregnant or nursing women to use EPA-approved repellants **if applied according to package label instructions**.

- **Cover skin** with long-sleeved shirts and long pants
  - Apply a permethrin repellent directly to clothing or purchase pre-treated clothing. Follow the manufacturer's directions and **do not apply directly to skin.**

- **Keep mosquitoes out of hotel rooms**
  - Choose a hotel or lodging with air conditioning or screens on windows and doors.

- Other mosquito-borne diseases such as dengue fever, chikungunya fever, and malaria may also impact the fetus or newborn and pose a risk in many of the same areas Zika virus is present, emphasizing the need to strictly follow steps to prevent mosquito bites.

- Travelers returning home should be advised to avoid being bitten by mosquitoes for at least 3 weeks following return home, especially while ill, to prevent infection of local mosquitoes.

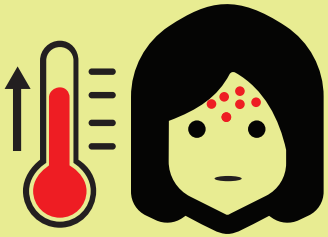
- While at home, draining standing water near residences and businesses at least weekly is recommended to keep local mosquito populations low and prevent local introductions.

Think **Measles**

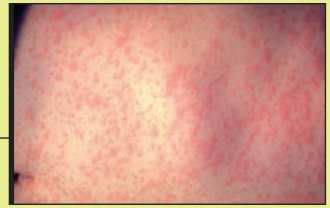
Florida Department of Health • Find county contact information at: FloridaHealth.gov

1. IDENTIFY

Suspect measles in patients with:



- Fever and rash.
- History of international travel or contact with visitors from locations with known measles outbreaks in the past 3 weeks.
- No or unknown MMR vaccine status. History of MMR vaccine **does not** exclude a measles diagnosis.



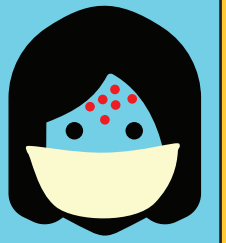
This is the skin of a patient after 3 days of measles infection.

Photo courtesy of the CDC.

Head and shoulders of boy with measles; third day of rash.

Photo courtesy of the CDC.

2. ISOLATE



- Implement airborne infection control precautions, mask and isolate patient in a negative pressure room, if available.
- Permit only staff immune to measles to be near the patient.
- Collect nasopharyngeal swab, urine, and serum for measles IgG, IgM and PCR.

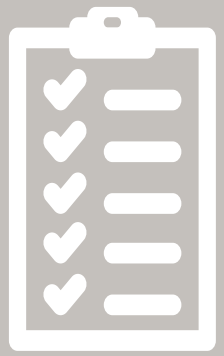
3. INFORM

Immediately report ALL suspected measles infections to your county health department. Notify other facilities of suspected measles before transport.

< FIND YOUR COUNTY

Vaccination Protects Against Measles

A single dose is 93% effective and two doses are 97% effective.



Risk Factors

- ☐ History of international travel, contact with international travelers, or domestic travel to locations with known measles outbreaks.
- ☐ No or unknown MMR vaccine status. History of MMR vaccine does not exclude a measles diagnosis.
- ☐ Contact with a person that had a febrile rash illness.

Prodrome

- ☐ Fever, cough, coryza, conjunctivitis

Rash Onset

- ☐ Fever spikes, often up to 104°F.
- ☐ Red, maculopapular rash that may become confluent—typically starts at hairline, then face and spreads down body.
- ☐ The rash may be difficult to see on darker skin.
- ☐ Koplik's spots (small, red, irregularly-shaped spots with blue-white centers found on the oral mucosa) may be present in a small number of cases.

02/03/15

Measles: Identification and Management of Suspected Cases

(Version 1.0, February, 13 2015 – Please note this interim guidance is subject to change.)

Do You Suspect Measles?

- Febrile rash illness, **AND**
- Risk factors for measles (history of international travel, contact with travelers or links to a known outbreak or case, or no or unknown vaccine or immunity).
- **Note** that one dose of measles vaccine is about 93% effective at preventing measles

Minimize Risk of Transmission

- Measles is a highly infectious airborne illness.
- Identify febrile rash illnesses prior to, or immediately upon, arrival to expedite evaluation in a private room and minimize patient exposures.
  - Have the patient avoid the waiting room (use a side/back entrance).
  - Have the patient wear a surgical mask.
  - Conduct patient evaluation in a room that can be left vacant for at least 2 hours after the patient's visit.

Does the patient meet the measles clinical case definition?

An illness with **BOTH** a generalized descending maculopapular rash **AND** a fever (at least 101°F) during the illness.

AND at least one of the following:

- Cough
- Coryza
- Conjunctivitis
- Koplik spots (may not be present).

NO →

Manage as clinically indicated

Consider differential diagnoses: human parvovirus B19, enterovirus, HIV, adenovirus or arbovirus infection, roseola infantum, scarlet fever, drug reaction, Kawasaki disease, rubella.

YES ↓

Call Immediately

Call the County Health Department 24/7 (813-307-8010) or Bureau of Epidemiology (850-245-4401)

Laboratory Testing

- Nasopharyngeal (NP) or oropharyngeal (OP) swab* in universal viral transport media for measles RT-PCR

AND

- Urine* in a sterile cup for measles RT-PCR**

AND

- Serum for measles specific IgG and IgM***

* **Preferred specimens**

**Measles RT-PCR is not available at commercial laboratories and is available at the Bureau of Public Health Laboratories, after prior authorization by the County Health Department.

*** Serum specimens should be collected ≥72 hours after rash onset. In a vaccinated patient, a negative measles IgM does NOT exclude measles, RT-PCR is preferred.

Suspect Case Management

- Isolate patient immediately
- Exclude from childcare/ school/workplace for at least 4 days after the onset of rash.
- Reassess isolation based on diagnosis.
- Provide supportive treatment and treatment of complications.

Positive test OR high suspicion for active measles infection after public health consultation?

- Manage as clinically indicated.
- Notify receiving facilities of diagnosis.
- Identify patients and staff that shared the same airspace with the case, up to 2 hours later.
- Determine immune status of these contacts.
- Provide vaccine within 3 days or immunoglobulin within 6 days of exposure.
- Exclude healthcare staff without evidence of immunity from day 5 through day 21 following the exposure, regardless of post-exposure prophylaxis.

Immunization is the key to prevention

- Review the measles vaccination/immunity status of patients and staff at your practice.
- See Centers for Disease Control and Prevention vaccination recommendations http://www.cdc.gov/vaccines

Further Questions?

Contact your County Health Department 24/7 (813-307-8010) or Bureau of Epidemiology (850-245-4401).

www.cdc.gov/measles