

The Florida Lab Link

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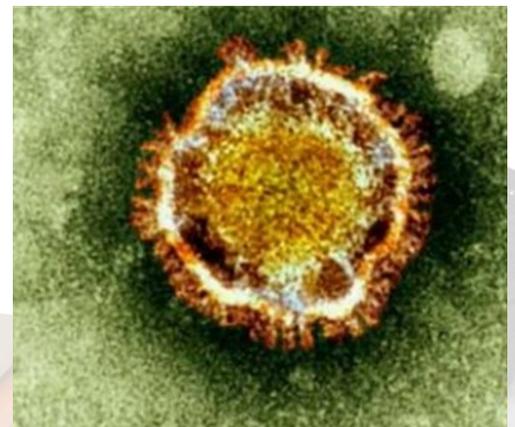
IN THE NEWS...

Betty Wheeler, BSBM*

The National Biosurveillance Integration Center (NBIC) integrates, analyzes, and shares the nation’s biosurveillance information and situational awareness of biological events with public and private sector partners through the National Biosurveillance Integration System (NBIS). Their strategic mission is to “*advance the safety, security, and resilience of the Nation by leading an integrated biosurveillance effort that facilitates early warning and shared situational awareness of biological events.*” The following items are currently being monitored by the NBIC¹:

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) – Multiple Countries

Two U.S. cases of MERS-CoV have been identified in healthcare workers who traveled to the U.S. from the Kingdom of Saudi Arabia (KSA) where they were providing medical service. The first U.S. identified MERS-CoV case reported on 2 May 2014 has fully recovered and was released from the hospital on 9 May 2014. The second U.S. identified MERS-CoV case reported on 12 May 2014 has fully recovered and was released from the hospital on 19 May 2014. Public health officials are conducting the appropriate follow-up investigation with secondary contacts including family members, travelers potentially exposed on the flights, and healthcare workers. This investigation has identified evidence of a previous infection in one of the first U.S. patient’s close contacts. The man developed a mild illness and since recovered; he did not seek or require medical care. As of 16 May 2014, the ECDC has reported 621 laboratory-confirmed cases (+84 cases since 8 May 2014) including 188 deaths (+40 deaths since 8 May 2014) of MERS-CoV documented by local health authorities worldwide. The majority of cases have originated from the KSA. As of 23 May 2014, the Saudi Ministry of Health reported 554 cases (+3 cases since 22 May 2014) and 178 deaths (+1 death since 22 May 2014) due to MERS-CoV in the KSA. Both case counts date from June 2012 when the first confirmed case of MERS-CoV was reported. MERS-CoV cases have been reported from the Middle East (Egypt, Jordan, the KSA, Kuwait, Lebanon, Oman, the UAE, Qatar, and Yemen), Europe (France, Greece, Germany, Italy, the Netherlands, and United Kingdom), North Africa (Tunisia), Asia (Malaysia and Philippines), and the Americas (U.S.). On 12 May 2014, the CDC updated a Travel Notice Alert Level 2, Practice Enhanced Precautions for “MERS in the Arabian Peninsula”.





Poliovirus – Multiple Countries

On 5 May 2014 the WHO declared the spread of wild type polio to be a Public Health Emergency of International Concern (PHEIC). The Emergency Committee convened under the International Health Regulations unanimously recommended that the conditions for a PHEIC had been met. The Committee made recommendations to interrupt the virus transmission within the borders of the ten states having new cases of the virus within the past six months or having the virus detected in the local sewer systems. The overall prevention strategy includes supplementary immunization campaigns with oral polio vaccine (OPV), surveillance for poliovirus, and routine immunization. As of 21 May 2014, the Global Polio Eradication Initiative (GPEI) reports 82 cases (+5 cases since 14 May 2014) of wild poliovirus, type 1 (WPV1) reported so far this year: Pakistan (66 cases, +5 since 14 May 2014), Afghanistan (4 cases, +1 since 30 April 2014), Cameroon (3 cases), Equatorial Guinea (3 cases), Nigeria (3 cases, +1 since 7 May 2014), Ethiopia (1 case), Iraq (1 case), and Syria (1 case). The WHO issued a statement indicating 37 cases of WVP1 have been reported from the Syrian Arab Republic as of 20 March 2014 (these cases are not reflected in the GPEI case count). According to the GPEI, 33 cases of wild poliovirus (WPV) were reported during the same time period in 2013. One-hundred sixty cases occurred in endemic countries, and 256 occurred in non-endemic countries during all of 2013. The CDC maintains a Travel Notice Alert Level 2, Practice Enhanced Precautions during travel to Cameroon, Equatorial Guinea, Ethiopia, Iraq, Syria, Somalia, and Kenya. The WHO International Travel and Health agency recommends all travelers to and from polio-affected areas be vaccinated fully against polio.

Chikungunya Fever - Americas

As of 16 May 2014, the Pan American Health Organization (PAHO) reported 55,992 (+6,404 cases since 9 May 2014) laboratory confirmed or clinically suspected cases of chikungunya fever since the outbreak was first identified in Caribbean in December 2013 (illness onset began in October 2013). Seven deaths (+1 death since 9 May 2014) have been associated with this outbreak. Affected regions include (listed in descending number of reported cases) Martinique, Guadeloupe, Dominican Republic, Saint Martin, Dominica, Saint Barthélemy, Haiti, Sint Maarten, French Guiana, Anguilla, Saint Vincent and Grenadines, the British Virgin Islands, Saint Lucia, Antigua and Barbuda, Aruba, Saint Kitts and Nevis. Significant concern has risen over the rapid spread of chikungunya infections in Haiti especially with the lack of infrastructure to provide proper mosquito control measures and potable water sources in housing camps of earthquake displaced Haitians. Chikungunya is transmitted by the same mosquito vectors that can transmit dengue. These mosquitos are widely distributed in the Americas and many Caribbean islands are also experiencing dengue outbreaks. In addition, the regional population is highly transitory, which may lead to further spread of the viruses. Travelers are advised to practice standard precautions to avoid insect bites. On 7 May 2014, the CDC issued a Travel Notice Watch Level 1, Practice Usual Precautions for Chikungunya in the Caribbean notification for travelers to this region. The Florida Department of Health announced that four residents (three cases reported on 16 May in Miami-Dade, Broward, and Hillsborough Counties and a single case in Palm Beach County reported on 22 May 2014) who had recently returned from the Caribbean have been diagnosed with chikungunya fever. These cases are considered imported cases and there is no evidence the virus is widespread in the U.S. mosquito population.



Dengue Fever - Worldwide

The WHO estimates there are 50 to 100 million infections globally with dengue virus each year and the virus is endemic to more than 100 countries. Elevated dengue virus activity has been noted in South Asia (Pakistan), Southeast Asia (Malaysia and Singapore), South Pacific (Fiji), the Caribbean (Martinique, Saint Barthélemy, and Saint Martin), Central America (El Salvador and Panama), and South America (French Guiana). The CDC warns dengue virus is endemic in many popular travel destinations, including Latin America, Southeast Asia, and Pacific Islands. During 2013, three cases of dengue infection were reported in Texas, 20 cases reported in Florida, and 8,584 cases reported in Puerto Rico.

Ebola Virus Disease (EVD) – West Africa

Description: Health authorities report an outbreak of hemorrhagic fever affecting Guinea and Liberia since early February is Ebola Virus Disease (EVD), subtype Ebola Zaire. As of 18 May 2014, the Guinean Ministry of Health has reported 253 (+5 cases since 12 May 2014) clinically compatible cases including 176 deaths (+5 deaths since 12 May 2014) since late March when the outbreak was first detected in Guinea. As of 18 May 2014, the Ministry of Health and Social Welfare of Liberia did not report any new clinically compatible cases of EVD since 9 April 2014. The WHO Regional Office for Africa projects the outbreak of EVD in Liberia will be declared over on 22 May 2014. The Ministry of Health and Sanitation of Sierra Leone has not confirmed any patients with EVD. This outbreak in West Africa is the first report of EVD affecting humans in West Africa since 1995 when a single case was identified in Côte d'Ivoire. Risk of infection to travelers to the affected regions is low. The CDC issued a Travel Notice Alert Level 2, Practice Enhanced Precautions for Ebola in Guinea and Liberia.

References:

1. Reprinted with special permission from the National Biosurveillance Integration System (NBIS) as published in the Florida Department of Health Situation Report Week 21 May 27-June 1, 2014. For more information, please contact NBICOHA@hq.dhs.gov or visit <https://www.dhs.gov/national-biosurveillance-integration-center>

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CHEMICAL THREAT (CT) PREPAREDNESS TRAINING

The CT laboratory coordinators are continuing to reach out to the health and medical community by offering training for CT preparedness at hospitals and county health departments. This training covers chemical terrorism awareness and the collection of clinical specimens after a chemical terrorism event. Hospital and county health department staff play an important role in the response to a chemical exposure event since clinical specimens will be collected for analysis. For your convenience and to increase participation, this training can be presented at your facility. Each course lasts approximately one hour with one 15-minute break between courses. Florida clinical laboratory and nursing continuing education (CE) credits will be offered. Training manuals, "hands on" exercise materials, and CT preparedness kits will be provided. This training is recommended for physicians, nurses, epidemiologists, emergency department personnel, phlebotomists, hospital and health department laboratory personnel, and others who may collect clinical specimens. Contact the CT laboratory coordinators in your region for more information (see the Bureau of Public Health Laboratories Directory on the back of this document for contact information).



IN THE SPOTLIGHT

INJECTION ANTHRAX

Recently, another type of anthrax infection has been identified in heroin-injecting drug users in northern Europe. This type of infection has never been reported in the United States.

Symptoms may be similar to those of [cutaneous anthrax](#), but there may be infection deep under the skin or in the muscle where the drug was injected. Injection anthrax can spread throughout the body faster and be harder to recognize and treat. Many other more common bacteria can cause skin and injection site infections, so a skin or injection site infection in a drug user does not necessarily mean the person has anthrax. To learn more visit <http://www.cdc.gov/anthrax/types/injection.html>.

LABORATORY RESPONSE NETWORK (LRN) TRAINING—BIOLOGICAL DEFENSE

The BPHL is currently offering an LRN Sentinel Laboratory training course at no cost to you at your facility. This training follows the ASM Sentinel Level Clinical Laboratory Protocols for Suspected Biological Threat Agents and Emerging Infectious Diseases. Scheduling the training at your facility is a relatively painless process. Determine when you would like to have the training and how many people will be attending. A time will be set up that is convenient for all. The training materials are provided as well as the Biodefense Reference manuals for your laboratory.

The training syllabus includes: 1) an overview of the LRN; 2) the American Society for Microbiology (ASM) protocols for ruling out potential bioterrorism agents and how to refer a sample to the State LRN Public Health reference laboratory when a bioterrorism agent cannot be ruled out; 3) the role of the sentinel laboratory in responding to pandemic influenza; 4) a brief introduction to packaging and shipping of infectious substances; 5) an introduction to the CDC Select Agent Program; and 6) the College of American Pathologists Laboratory Preparedness Exercise (CAP LPX).

This class awards Florida clinical laboratory continuing education (CE) credits based on five hours of instruction. Please contact Betty Wheeler at (904) 791-1568 (Betty.Wheeler@FLhealth.gov) to schedule a class for your facility.



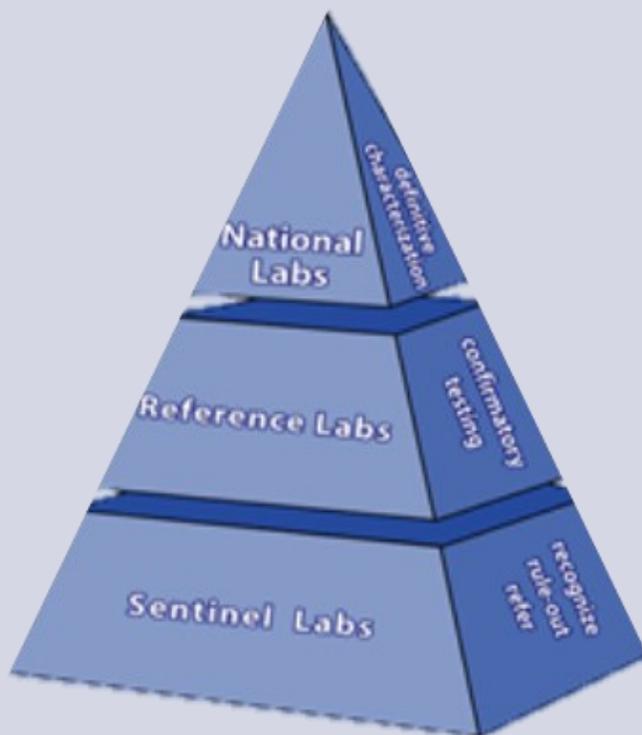
AMERICAN SOCIETY FOR MICROBIOLOGISTS (ASM) SENTINEL LEVEL CLINICAL LABORATORY PROTOCOLS FOR SUSPECTED BIOLOGICAL THREAT AGENTS AND EMERGING INFECTIOUS DISEASES

In coordination with the CDC and the Association of Public Health Laboratories (APHL), the ASM has updated protocols designed to offer Laboratory Response Network (LRN) Sentinel Level Clinical Laboratories standardized, practical methods and techniques to rule out microorganisms suspected as agents of bioterrorism, or to refer specimens to public health laboratories for confirmation.

The current edition is compliant with the Clinical Laboratory Standards Institute (CLSI) format based on current information and recommendations of the APHL Sentinel Laboratory Partnerships and Outreach Subcommittee. These protocols reflect the standard practices for specimen processing as well as agent specific guidance. In addition to promoting standardization and uniformity of testing, adherence to, and maintaining the highest level of safety practices, is emphasized in the respective protocols. Updated guidelines can be found at the ASM website: <http://www.asm.org/index.php/issues/sentinel-laboratory-guidelines>.

SUMMARY AND UTILIZATION OF SELECT AGENT FORMS BY LRN SENTINEL LEVEL LABORATORIES

LRN Sentinel Level Laboratories are not required to register or be certified with the Select Agent Rule but are required to be compliant under specific conditions. An area of confusion for Sentinel Level Laboratories has been the completion of specific forms related to select agents. Information on the purpose and utilization of Forms 2, 3, and 4A by the Sentinel Level Laboratory, specifically the conditions under which such forms may require completion as directed by the LRN Reference Laboratory or following authorization by the Centers for Disease Control and Prevention (CDC) can be obtained at: <http://www.selectagents.gov/Forms.html>.



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