COMMONWEALTH of VIRGINIA

Department of Health

MARISSA J. LEVINE, MD, MPH, FAAFP
STATE HEALTH COMMISSIONER

PO BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

Infectious Disease Update – Zika Virus, Influenza, and Norovirus

January 26, 2016

Dear Colleague:

Many of us are still dealing with the aftermath of Winter Storm Jonas. Thank you for assisting your patients through the impact of the storm. Throughout the Commonwealth, we at the Virginia Department of Health stand ready to assist as additional needs arise.

The focus of today's correspondence, however, is to ensure that you are up to date on infectious disease threats of concern to you and your patients. These include a Virginia-specific status report on the emerging issue of **Zika virus infection** and **reminders on influenza** and **norovirus**, our more typical seasonal concerns.

Zika Virus Infection

During 2015, Brazil reported an increasing incidence of infants born with microcephaly. With a temporal relationship to the emergence of Zika virus infections in the country, questions were raised regarding a never seen before potential association between Zika virus and microcephaly. On January 19, 2016, following these concerning reports, the Centers for Disease Control and Prevention (CDC) released a report entitled "*Interim Guidelines for Pregnant Women During a Zika Virus Outbreak.*"

Virginia just received confirmation of our first imported case of Zika virus infection. Even though it is not mosquito season in Virginia, it is important for you to be aware of Zika virus, including its potential impacts to pregnant women and their babies, to assure proper counseling to your patients. In this letter, please find information and resources to help you in your clinical practice.

Key components of this correspondence related to Zika virus include the following:

- Zika Virus: Background and Clinical Presentation
- Recommendations for Pregnant Women: Diagnosis and Laboratory Testing
- Recommendations for Case Reporting of Patients with Compatible Illness and Travel History

Zika Virus: Background and Clinical Presentation

Background: Zika virus is a mosquito-borne flavivirus transmitted primarily through the bite of *Aedes aegypti* mosquitoes. These vectors, which also transmit dengue and chikungunya (CHIK), are found throughout much of the Americas, including the United States. The virus also has been found to be transmitted by *Aedes albopictus* (the Asian tiger mosquito), the most common nuisance mosquito in Virginia. Although local transmission of Zika virus has not been documented in the United States to date, Zika virus infections have been reported in travelers returning to the United States. The number of imported cases likely will increase. While it is not currently mosquito season in Virginia, there is potential in the future for Virginia's mosquitoes to acquire Zika virus from an infected traveler and cause local transmission.

Clinical presentation: An estimated 80% of persons infected with Zika virus are asymptomatic. The incubation period for Zika virus disease is not known, but is likely to be a few days to a week. Symptomatic disease is generally mild and characterized by acute onset of fever, maculopapular rash, arthralgia, or nonpurulent conjunctivitis. Symptoms typically last from several days to one week. Pregnant women can be infected with Zika virus in any trimester, and maternal-fetal transmission of Zika virus has been documented throughout pregnancy. It is not known how many of the microcephaly cases in Brazil are associated with Zika virus; studies are underway to investigate this important question and the role of other potential contributory factors. The full spectrum of outcomes associated with infection during pregnancy is unknown.

Recommendations for Pregnant Women: Diagnosis and Laboratory Testing

CDC and the Virginia Department of Health recommend that all pregnant women consider postponing travel to areas where Zika virus transmission is ongoing (http://wwwnc.cdc.gov/travel/notices/). If a pregnant woman under your care cannot avoid travel, please advise her to follow strictly the steps to avoid mosquito bites. Mosquito prevention strategies include wearing long-sleeved shirts and long pants, using insect repellent according to package instructions, and staying in rooms with air conditioning or screens on the windows.

Ask all pregnant women about recent travel. Pregnant women who have a history of travel to an area with Zika virus transmission and who report two or more symptoms consistent with Zika virus disease (acute onset of fever, maculopapular rash, arthralgia, or conjunctivitis) during travel or within 2 weeks of travel should be tested for Zika virus infection in consultation with their local health department. Testing is recommended also for pregnant women with appropriate travel history who have ultrasound findings of fetal microcephaly or intracranial calcifications. Laboratory testing for Zika virus is currently available only through CDC. Please work through your local health department first to determine if testing for Zika virus is indicated and then to coordinate collection and submission of samples for testing.

It is also recommended that pregnant women with history of travel to an area with Zika virus transmission, who are not clinically ill, receive fetal ultrasound to detect microcephaly or

intracranial calcifications. If these ultrasound findings are present in an otherwise asymptomatic pregnant woman with relevant travel history, laboratory testing is recommended. If these abnormal ultrasound findings are not present, clinicians can consider serial ultrasounds to detect the development of these fetal conditions. For more information on these recommendations, including an algorithm for testing and/or monitoring pregnant women, please see the MMWR report here:
http://www.cdc.gov/mmwr/volumes/65/wr/mm6502e1er.htm?s_cid=mm6502e1er.htm_w.

Per a CDC report released on January 26, 2016, testing and further clinical evaluation is recommended for (1) infants with microcephaly or intracranial calcifications born to women who traveled to or resided in an area where Zika virus transmission is ongoing; and (2) infants born to mothers with positive or inconclusive test results for Zika virus infection. For more information on the recommendations for evaluation and testing of infants, please go to:
http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e3er.htm

For more information specifically about laboratory testing for Zika and other arboviral illnesses, please go to: http://www.cdc.gov/zika/pdfs/denvchikvzikv-testing-algorithm.pdf.

Recommendations for Case Reporting of Patients with Compatible Illness and Travel History

As an arboviral infection, Zika virus is a reportable condition in Virginia. Please report suspect cases to your local health department. A directory of local health departments can be found at http://www.vdh.virginia.gov/LHD/index.htm.

A patient should be suspected to have Zika virus infection if either of the following applies: 1) s/he traveled to a Zika-affected area and developed two or more Zika-compatible symptoms (acute onset of fever, maculopapular rash, arthralgia, or conjunctivitis) during travel or within 2 weeks of travel or 2) microcephaly is diagnosed in a fetus or infant whose mother was pregnant while in an area with ongoing Zika transmission. Important information to gather from patients includes the illness onset date, clinical symptoms, and travel history (locations and dates). Consideration of laboratory testing for Zika virus in non-pregnant patients will require consultation with public health.

Regardless of pregnancy status, the clinical presentation of Zika can be similar to dengue and chikungunya virus infection. Patients with symptoms consistent with Zika virus infection should be evaluated for dengue and chikungunya virus infection as well. Laboratory testing for chikungunya and dengue for non-pregnant individuals should be pursued at a commercial laboratory. Laboratory testing at a public health lab for these conditions will be prioritized for pregnant patients upon review by local and state public health authorities.

Influenza Update

Influenza activity is increasing in Virginia. For the week ending January 16, 2016, Virginia reported regional flu activity. The 2009 (H1N1) influenza A virus has been the most frequently identified strain of the virus this season, but influenza A(H3) and influenza B have also been confirmed in Virginians. Please continue to recommend influenza vaccine to your patients 6 months of age and older who have not yet been vaccinated to this season.

To help you stay abreast of influenza in Virginia, we have a comprehensive influenza website at http://www.vdh.virginia.gov/epidemiology/flu/ that includes detailed information and recommendations for healthcare professionals and facilities. VDH tracks several sources of data regarding influenza and influenza-like illnesses, and provides a weekly surveillance update at http://www.vdh.virginia.gov/epidemiology/flu/Surveillance.htm.

Norovirus Update

Our surveillance for gastrointestinal (GI) symptoms signals the approach of the norovirus season. Via our enhanced surveillance system, increases in visits to emergency and urgent care settings for GI illness have been noted and local health departments are receiving reports of outbreaks in congregate settings. Experience has shown that once we reach this level of activity, a surge in outbreaks of gastrointestinal illness soon follows. As you know, norovirus is readily transmissible from person-to-person, especially in congregate settings (e.g., schools, daycare centers, assisted living facilities, long-term care facilities, group homes, cruise ships). As you care for patients with suspect norovirus gastroenteritis, you can help limit the spread of infection by recommending that they stay home from work or school until vomiting and diarrhea are fully resolved.

Thank you for providing care and information to your patients to help prevent the spread of these viruses as well as answering their concerns and questions. I value our collaboration and know that we best protect the health of all people of Virginia by working together.

Sincerely,

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

A pdf version of this letter is available on the VDH Resources for Health Care Professionals web page.