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Preparing for Influenza in the Shadow of Ebola

Dear Colleague:

This year's flu season promises to be as unpredictable as each of those that have come before. I am writing today to ensure that you are aware of the latest information from national and Virginia-specific <u>surveillance</u> data, a few key <u>prevention and treatment</u> recommendations for your consideration as well as <u>additional resources</u> that might assist you in your patient care.

I would first like to thank each and every one of you for your efforts to prepare and respond to the unprecedented Ebola outbreak in Guinea, Liberia, Mali and Sierra Leone. Thanks to our collaborative efforts, I believe Virginians can take comfort in knowing that we are well positioned to deal with this disease if it should present itself in Virginia. Unfortunately, the outbreak affecting some countries in West Africa is not yet controlled and the risk it poses to us here in Virginia has not lessened.

Although there is no Ebola in Virginia as of the date of this communication, VDH personnel at the local and central offices have been working around the clock to actively monitor travelers from the affected West African countries. To date, we have interacted with over 225 travelers via the airport screening/active monitoring programs. Please continue to communicate with VDH personnel as needed and consult our web information at http://www.vdh.virginia.gov/epidemiology/ebola/HealthCare.htm. The concern for Ebola will complicate our response to influenza, norovirus and other seasonal diseases for which we expect an increase in the coming months.

Surveillance

At present, influenza activity is low in Virginia and in the United States. As you know, we expect activity to increase in the coming weeks as Virginia typically experiences peak influenza activity between December and February. Based on our surveillance data we also expect an increase in norovirus in the very near future. As we prepare for an increase in influenza and norovirus activity in the coming weeks, I would like to share three important flu-specific updates:

- National surveillance data has shown the presence of influenza A (H3N2) viruses that are antigenically different (drifted) from the virus contained in this year's influenza vaccine.
- Annual influenza vaccination is still the best tool for prevention of influenza, even if the vaccine is not a perfect match to all of the circulating influenza strains.
- Neuraminidase inhibitor medications (oseltamivir or zanamivir) are an important adjunct for the treatment and prevention of influenza, especially when drifted viruses are circulating.

So far this season, influenza A (H3N2) viruses have been the most frequently identified strain circulating in the United States, based on data collected at the Centers for Disease Control and Prevention (CDC) between October 1 and November 22, 2014. Lower levels of influenza B viruses have been detected, with even less detection of H1N1 viruses. Although it is not possible to predict the severity of the flu season, in years where influenza A (H3N2) viruses have predominated, higher hospitalization and mortality rates have been observed.

Characterization of the influenza A (H3N2) viruses at CDC has indicated the presence of a circulating strain that is different from the strain included in this year's flu vaccine (http://emergency.cdc.gov/HAN/han00374.asp). Of the influenza A (H3N2) viruses that have been characterized, 48% were antigenically similar to the 2014-2015 influenza A (H3N2) vaccine component, while 52% were drifted from the H3N2 vaccine virus. In past seasons when drifted viruses have been identified, decreased vaccine effectiveness has been observed.

Prevention and Treatment

However, even in the presence of a drifted virus, annual vaccination continues to be the best way to reduce the burden of influenza. The vaccine is designed to protect against 3 or 4 influenza viruses, depending on which vaccine product is administered. Further, the vaccine may still offer some protection against the drifted strain and may help to prevent complications or severe illness if flu illness does occur. Please encourage all of your patients 6 months and older who have not yet received an influenza vaccine this season to be vaccinated against influenza.

It is also important to emphasize the **early use of antivirals in the treatment of influenza**. Antivirals are an important second line of defense, particularly for those at high-risk for complications from influenza. Two neuraminidase inhibitor antiviral medications are recommended for use in the United States—oseltamivir (Tamiflu®) and zanamivir (Relenza®). Current national surveillance data has not revealed significant resistance to oseltamivir and zanamivir to date.

Treatment works best when started within the first 48 hours of illness and can shorten the duration of symptoms and reduce the risk of severe complications and death. **Treatment with**

antiviral medications is recommended for patients with influenza who are hospitalized; have severe, complicated or progressive illness; or are at higher risk for influenza complications (http://www.cdc.gov/flu/about/disease/high_risk.htm). Antiviral treatment may also be considered in other populations, if treatment can be initiated within 48 hours of illness onset. Use of antivirals for the *prevention* of influenza should be considered for institutional outbreaks (such as in nursing homes or other closed populations) or for those who have contraindications to influenza vaccination.

Please also continue to stress other preventive health practices that may help decrease the spread of influenza and other common winter illnesses (such as norovirus), including staying home from work and school when ill, staying away from people who are sick, increasing hand washing, and using cough etiquette and respiratory hygiene practices.

Additional Resources

Additional information about influenza is available on the VDH website at http://www.vdh.virginia.gov/epidemiology/flu. The website includes links to information specifically for health care providers, as well as materials on vaccination, other flu prevention strategies, novel flu viruses, and our weekly surveillance update on influenza disease activity in Virginia.

It is an honor to work with you. I want to again personally thank you for your ongoing efforts to protect the health of Virginians and to wish you safe, healthy and happy holidays.

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.