Missouri Department of Health & Senior Services

Health Advisory:

Guidance for Clinicians on the Use of Rapid Influenza Diagnostic Tests

December 22, 2010

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Health Alerts convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies, and/or the public.

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Health Guidances contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

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FROM: MARGARET T. DONNELLY

DIRECTOR

SUBJECT: Guidance for Clinicians on the Use of Rapid Influenza

Diagnostic Tests (RIDTs)

The Centers for Disease Control and Prevention (CDC) has recently made available a 13-page document entitled *Guidance for Clinicians on the Use of Rapid Influenza Diagnostic Tests for the 2010-2011 Influenza Season*. It provides a detailed summary of rapid influenza diagnostic tests (RIDTs), including recommendations for their use. This document is available at http://www.cdc.gov/flu/pdf/professionals/diagnosis/clinician_guidance_ridt.pdf. The following are some of the key points.

RIDTs are immunoassays that can identify the presence of influenza A and B viral nucleoprotein antigens in respiratory specimens, and display the result in a qualitative way (positive vs. negative). In the United States, a number of RIDTs are commercially available. Some of these tests distinguish between influenza A or B virus infection, while others do not. RIDTs that provide results on type of influenza virus (e.g. influenza A or B virus), do not provide information on influenza A virus subtype (e.g. A/H1N1 versus A/H3N2) or specific strain information.

RIDTs can yield results in a clinically relevant time frame, i.e., approximately 15 minutes or less. However, RIDTs have limited sensitivity to detect influenza virus infection and negative test results should be interpreted with caution given the potential for false-negative results. False-negative (and true-positive) results are more likely to occur when disease prevalence is high in the community.

Although the specificities of RIDTs are generally high, false-positive results can be seen. False-positive (and true-negative) results are more likely to occur when disease prevalence in the community is low.

To minimize false results:

- Collect specimens as early in the illness as possible (ideally < 4 days from illness onset).
- Follow manufacturer's instructions, including acceptable specimens, and handling.
- Follow-up negative results with confirmatory tests (RT-PCR or viral culture) if a laboratory-confirmed influenza diagnosis is desired.

RIDTs may be used to help with diagnostic and treatment decisions for patients in clinical settings, such as whether to prescribe antiviral medications. However, due to the limited sensitivities and predictive values of RIDTs, negative results of RIDTs do not exclude influenza virus infection in patients with signs and symptoms suggestive of influenza. Therefore, appropriate antiviral treatment should not be withheld from patients with suspected influenza even if they test negative. (Influenza antiviral treatment recommendations are available at http://www.cdc.gov/flu/professionals/antivirals/.) Note also that testing is not needed for all patients with signs and symptoms of influenza to make antiviral treatment decisions. Once influenza activity has been documented in the community or geographic area, a clinical diagnosis of influenza can be made for outpatients with signs and symptoms consistent with suspected influenza, especially during periods of peak influenza activity in the community.

Questions on RIDTs should be directed to the Missouri State Public Health Laboratory (MSPHL) at 573/751-3334. Medical epidemiology support is available for medical consultations regarding influenza clusters, outbreaks, and clinical testing. Please contact the DHSS Epidemic Intelligence Service (EIS) officer, Philip Lo, MD, at Philip.lo@dhss.mo.gov, or 573/526-1369 (days) or 800/392-0272 (nights, weekends, holidays) for such consultation.