

This is an official

CDC Health Advisory

Distributed via the South Carolina Health Alert Network

February 29, 2008, 14:10 EST (02:10 PM EST)

Influenza Antiviral Use for Persons at High Risk for Influenza Complications or Who Have Severe Influenza Illness

CDC is alerting clinicians to be fully aware of the potential benefits of influenza antiviral medications during this influenza season.

Summary

Recent surveillance data indicate that many communities are reporting substantially increased influenza activity. **This CDC Health Advisory is intended to re-emphasize the importance of considering antiviral medications for use in the treatment or prevention of influenza. The two prescription antiviral medications recommended for treatment or prevention of influenza include oseltamivir (Tamiflu®, Roche Laboratories, Nutley, NJ) or zanamivir (Relenza®, GlaxoSmithKline, Research Triangle Park, NC). These antiviral medications are also known as neuraminidase inhibitors.**

Recent studies suggest a considerable protective effect against complications associated with influenza when neuraminidase inhibitors are used for treatment. These benefits include reducing the risk of death among older adults hospitalized with laboratory-confirmed influenza. Because high levels of resistance to adamantane antiviral medications (rimantadine and amantadine) continue to be observed among circulating influenza A viruses, adamantanes are not recommended for treatment or prevention of influenza.

Background

During this influenza season, a small increase in the number of influenza viruses resistant to oseltamivir has been observed in the United States. Among the 471 influenza A and B viruses tested during the 2007–08 influenza season to date, 27 (5.7%) have been found to be resistant to oseltamivir, compared with 0.7% during the 2006–07 season. All of the oseltamivir-resistant viruses have been influenza A viruses of the H1N1 subtype; 8.7% of the 310 H1N1 viruses tested are resistant to oseltamivir. No resistance to oseltamivir has been observed among the 161 influenza A (H3N2) and influenza B viruses tested to date, and no antiviral resistance to zanamivir has been detected in any subtype.

Recommendations

Given the low level of overall resistance to oseltamivir among circulating influenza viruses, the finding of resistance only in influenza A (H1N1) viruses, and no resistance to zanamivir, **neuraminidase inhibitor medications continue to be recommended for the treatment and chemoprophylaxis of influenza.** Antiviral treatment should begin within 48 hours of symptom onset if possible, but treatment should still be considered for persons who present more than 48 hours after illness onset if they have severe influenza illness or are at higher risk for severe complications from influenza. **Oseltamivir is approved for treatment and prevention of influenza for persons 1 year and older, while zanamivir is approved for treatment of persons 7 years and older and prevention of influenza in persons 5 years and older.** Enhanced surveillance for detection of oseltamivir-resistant influenza viruses is ongoing, and antiviral usage recommendations will be revised to account for changes in antiviral resistance trends as needed. Influenza A viral isolates from affected persons in institutional outbreaks should be subtyped. Health care providers should contact their local or state public health department for assistance when an

outbreak of influenza in an institutional setting (e.g., a long-term care facility) occurs. State health departments should consult with CDC about the need for antiviral resistance testing when influenza A (H1N1) viral isolates are obtained from outbreaks in institutional settings.

In some communities, circulating influenza virus strains during this influenza season are antigenically different from those contained in current influenza vaccines. Preliminary results from a rapid assessment of vaccine effectiveness suggest that currently available influenza vaccines provide some protection against influenza virus infection requiring medical care. However, the level of protection is likely to be lower than what is observed in seasons in which the vaccine strains are closely matched to circulating influenza virus strains. When influenza vaccine effectiveness is reduced, clinicians should be aware of the potential for appropriately vaccinated persons to develop influenza despite vaccination.

Because approximately 2 weeks is required to develop an optimal immune response to influenza vaccination, use of neuraminidase inhibitors for prevention of influenza during a confirmed influenza institutional outbreak should be considered for persons at higher risk for influenza complications and who were vaccinated within the previous 2 weeks. Persons who were vaccinated more than two weeks before a suspected influenza virus exposure, but who are less likely to develop protective immunity after vaccination (e.g., persons in long-term care facilities or persons with immunosuppression), can be considered for antiviral chemoprophylaxis when local influenza surveillance data indicate that influenza activity is high.

Clinicians should consider whether to recommend influenza antiviral treatment based on the severity of the patient's illness, the time since illness onset, local influenza surveillance data and influenza test results. Rapid diagnostic tests for influenza have good specificity, but are only moderately sensitive. Positive rapid tests are generally reliable when influenza activity is high in a community and are useful in deciding whether to initiate antiviral treatment. Negative rapid test results are less helpful in making treatment decisions. When local influenza activity is high, persons with severe respiratory symptoms or persons with acute respiratory illness who are at higher risk for influenza complications should still be considered for influenza antiviral treatment despite a negative rapid influenza test unless illness can be attributed to another cause. As reported in a previous HAN, persons with severe influenza illness should also be assessed for invasive bacterial co-infection, and appropriate antimicrobial therapy directed at potential bacterial pathogens, such as methicillin-resistant *Staphylococcus aureus*, might be necessary.

To reduce the substantial burden of influenza in the U.S., **CDC continues to recommend a three-pronged approach: influenza vaccination, use of neuraminidase inhibitor antiviral medications when indicated for treatment or prevention, and use of other measures to decrease the spread of influenza, including promotion of hand hygiene, respiratory hygiene, cough etiquette, and staying home from work and school when ill.** Clinicians in communities experiencing increased influenza activity should consider prescribing the neuraminidase inhibitor antiviral medications oseltamivir and zanamivir for the treatment of influenza patients or for prevention of influenza when indicated for institutional influenza outbreaks or for persons at high risk for complications from influenza who have contraindications to influenza vaccination.

For more information, please see the CDC website: <http://www.cdc.gov/flu/professionals/antivirals/>

DHEC Contact Information for Reportable Diseases and Reporting Requirements

Reporting of positive influenza rapid influenza tests, positive influenza virus culture isolates and influenza pediatric deaths ages less than or equal to 17 years of age are included in the current DHEC List of Reportable Conditions as a "report within 7 days" condition. Healthcare providers are required to report suspected or confirmed cases to their Regional Public Health Offices, at the contact numbers listed below.

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices – 2008

Mail or call reports to the Epidemiology Office in each Public Health Region.

Region 1

Anderson, Oconee
220 McGee Road
Anderson, SC 29625
Phone: (864) 260-4358
Fax: (864) 260-5623
Nights / Weekends: 1-866-298-4442

Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda

1736 S. Main Street
Greenwood, SC 29646
Phone: 1-888-218-5475
Fax: (864) 942-3690
Nights / Weekends: 1-800-420-1915

Region 2

Greenville, Pickens
PO Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 282-4139
Fax: (864) 282-4373
Nights / Weekends: 1-800-993-1186

Cherokee, Spartanburg, Union

PO Box 4217
151 E. Wood Street
Spartanburg, SC 29305-4217
Phone: (864) 596-2227, x- 210
Fax: (864) 596-3443
Nights / Weekends: 1-800-993-1186

Region 3

Chester, Lancaster, York
PO Box 817
1833 Pageland Highway
Lancaster, SC 29721
Phone: (803) 286-9948
Fax: (803) 286-5418
Nights / Weekends: 1-866-867-3886

Region 3 (continued)

Fairfield, Lexington, Newberry, Richland
2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: 1-888-554-9915

Region 4

Clarendon, Kershaw, Lee, Sumter
PO Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 775-9941
Nights/Weekends: 1-877-831-4647

Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion

145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 660-8145

Region 5

Bamberg, Calhoun, Orangeburg
PO Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 533-7199
Fax: (803) 533-7134
Nights / Weekends: (803) 954-8513

Aiken, Allendale, Barnwell

1680 Richland Avenue, W. Suite 40
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 643-8386
Nights / Weekends: (803) 827-8668 or
1-800-614-1519

Region 6

Georgetown, Horry, Williamsburg
1931 Industrial Park Road
Conway, SC 29526-5482
Phone: (843) 915-8804
Fax: (843) 365-0085
Nights / Weekends: (843) 381-6710

Region 7

Berkeley, Charleston, Dorchester
4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 746-3860
Fax: (843) 746-3851
Nights / Weekends: (843) 219-8470

Region 8

Beaufort, Colleton, Hampton, Jasper
219 S. Lemacks Street
Walterboro, SC 29488
Phone: (843) 549-1516, x-214
Fax: (843) 549-6845
Nights / Weekends: 1-800-614-4698

DHEC Bureau of Disease Control Division of Acute Disease Epidemiology

1751 Calhoun Street
Box 101106
Columbia, SC 29211
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902



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Categories of Health Alert messages:

Health Alert conveys the highest level of importance; warrants immediate action or attention.

Health Advisory provides important information for a specific incident or situation; may not require immediate action.

Health Update provides updated information regarding an incident or situation; unlikely to require immediate action.