PENNSYLVANIA DEPARTMENT OF HEALTH
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Seasonal influenza A (H3N2) activity, need for testing, antiviral treatment, and reporting of patients with influenza.

DATE:	January 10, 2018
TO:	Health Alert Network
FROM:	Rachel Levine, MD, Acting Secretary of Health
SUBJECT:	**Seasonal influenza A (H3N2) activity, need for testing, antiviral treatment, and reporting of patients with influenza.**
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	Statewide
COUNTY:	Statewide
MUNICIPALITY:	Statewide
ZIP CODE:	Statewide

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

Summary

- Influenza A(H3N2) activity has increased sharply over the past few weeks.
- Neuraminidase inhibitor antiviral medications are an important adjunct to the influenza vaccination during influenza H3N2 predominant seasons.
- **Antiviral treatment should be used for high-risk, severely ill, and all hospitalized patients immediately without waiting for confirmatory test results.**
- Patients may need to be prioritized for influenza testing if there are shortages of test kits or an unmanageably high laboratory workload in your area.
- Lab-confirmed influenza is a reportable condition under Pennsylvania disease reporting laws; please report all positive results from antigen detection tests, point-of-care tests, molecular assays, and viral cultures.

Background

Influenza activity has increased sharply over the past few weeks in the United States and Pennsylvania. **Influenza A(H3N2)** is the predominant circulating subtype, comprising 90 percent of tests reported to the CDC through December 30, 2017.[1] However, other influenza viruses have also been identified, including influenza A(H1N1)pmd09 and influenza B from both the Yamagata and Victoria lineages. Influenza seasons where A(H3N2) predominates are typically associated with more hospitalizations and deaths in persons aged 65 years and older and young children compared to other age groups.[2] Vaccine effectiveness against influenza A(H3N2) also tends to be lower compared to vaccines against other influenza strains.[3]

The Pennsylvania Department of Health (PADOH) recommends the following:

1- Antiviral Medications

Neuraminidase inhibitor antiviral medications play an important role in preventing, treating and reducing complications of influenza during A(H3N2) predominant-seasons.[4] All hospitalized, severely ill and high-risk patients with suspected or laboratory confirmed influenza should be treated with antiviral medications. Clinical benefit is greatest when antiviral treatment is administered as early as possible after illness onset. Therefore, antiviral treatment should be started as soon as possible after illness onset; **do not wait for the results of testing**. Ideally, treatment should be initiated within 48 hours of symptom onset. However, antiviral treatment initiated later than 48 hours after illness onset can still be beneficial for some patients.

Persons who are at higher risk of complications from influenza include those aged ≥65 years or <2 years; pregnant women; persons with chronic lung disease (including asthma), heart disease, renal, metabolic, hematologic and neurologic disease; immunosuppression; and morbid obesity; American Indians or Alaska Natives, and residents of chronic care facilities. Antiviral treatment may also be prescribed on the basis of clinical judgment for any previously healthy (non-high risk) outpatient with suspected or confirmed influenza who presents within **two** days after illness onset. Neuraminidase inhibitors can reduce the duration of uncomplicated influenza illness by approximately one day when started within two days after illness onset in otherwise healthy persons. For more information refer to the CDC HAN published on December 27, 2017 at: https://emergency.cdc.gov/han/han00409.asp)

2- Influenza Testing

A number of laboratory and point-of-care tests are available for testing respiratory specimens for influenza viruses. Molecular assays have the highest sensitivity and specificity and should be used for all hospitalized patients. Antiviral medications may be prescribed without confirmation of influenza virus infection by diagnostic testing. Decision-making should be based upon signs and symptoms consistent with influenza illness and epidemiologic factors. Initiation of empiric antiviral treatment should not be delayed while influenza testing results are pending.

When influenza activity is high, tests with lower sensitivity, such as antigen tests, may be negative even though the patient has influenza. CDC has created a flow chart to assist providers in the interpretation of influenza testing results at: https://www.cdc.gov/flu/professionals/diagnosis/algorithm-results-circulating.htm.

If local testing supplies are running low or if your laboratory is becoming overburdened with influenza testing, patients may need to be prioritized for testing. Guidance from CDC is available at: https://www.cdc.gov/flu/professionals/diagnosis/consider-influenza-testing.htm.

3- Influenza reporting

Lab-confirmed influenza cases and influenza outbreaks are reportable in Pennsylvania.[5] Uncomplicated outpatient influenza cases may be reported as weekly aggregate case counts, through the aggregate reporting module in Pennsylvania's electronic disease reporting system, PA-NEDSS. A document with instructions on aggregate reporting is attached to this HAN. All influenza-related deaths and hospitalizations must be reported individually to PA-NEDSS.

PADOH posts current influenza surveillance data weekly at: http://www.health.pa.gov/My%20Health/Diseases%20and%20Conditions/I-L/Pages/20172018-Influenza-Season.aspx#.Wk-n7zco47w.

References:

1. DC FluView report: https://www.cdc.gov/flu/weekly/index.htm#S1
2. Frequently Asked Flu Questions, 2017-2018 Influenza Season: https://www.cdc.gov/flu/about/season/flu-season-2017-2018.htm
3. Vaccine Effectiveness - How Well Does the Flu Vaccine Work?: https://www.cdc.gov/flu/about/qa/vaccineeffect.htm
4. Antiviral medications with activity against influenza viruses are an important adjunct to influenza vaccine in the control of influenza: https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm
5. Pennsylvania reportable disease regulations: https://www.pacode.com/secure/data/028/chapter27/chap27toc.html

Additional Resources

- Summary of Influenza Antiviral Treatment Recommendations for Clinicians: http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm
- Clinical Description and Lab Diagnosis of Influenza: http://www.cdc.gov/flu/professionals/diagnosis/index.htm
- Guidance for Clinicians on the Use of RT-PCR and Other Molecular Assays for Diagnosis of Influenza Virus Infection: http://www.cdc.gov/flu/professionals/diagnosis/molecular-assays.htm
- Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities: http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm
- Influenza Virus Testing in Investigational Outbreaks in Institutional or Other Closed Settings: https://www.cdc.gov/flu/professionals/diagnosis/guide-virus-diagnostic-tests.htm
- FDA Influenza (Flu) Antiviral Drugs and Related Information (including package inserts): http://www.fda.gov/drugs/drugsafety/informationbydrugclass/ucm100228.htm

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.

This information is current as of January 10, 2018 but may be modified in the future.