



Philadelphia Department of Public Health
Division of Disease Control

JAMES W. BUEHLER, MD
Health Commissioner

NAN FEYLER, JD, MPH
Deputy Commissioner for Public Health Programs

CAROLINE C. JOHNSON, MD
Director, Division of Disease Control

Health Advisory

Influenza and Respiratory Virus Surveillance and Treatment

December 9, 2014

Surveillance Summary

Influenza activity this season is currently low and sporadic in Philadelphia with only 18 laboratory confirmed cases having been reported since September 2014. However, flu activity is increasing in other parts of the United States and is expected to begin increasing locally soon.

Rhinovirus continues to circulate at high levels in the Philadelphia region, with nearly 30% of pediatric respiratory specimens testing positive. RSV activity has steadily been increasing over the last few weeks while other respiratory viruses are circulating at low levels.

Nationwide, influenza A (H3N2) viruses have been the predominant flu strain detected this season. Of the 85 influenza A (H3N2) viruses characterized at CDC, 52% were antigenically different or “drifted” from the H3N2 virus contained in this year’s flu vaccine (A/Texas/50/2012). Although this observation suggests that vaccine effectiveness may be lower this season, it is essential that providers continue to encourage all patients 6 months and older to be vaccinated against influenza and to utilize antiviral medications for the treatment and prevention of influenza, as detailed later in this advisory. During past seasons dominated by influenza A (H3N2) viruses, higher hospitalization and mortality rates have been observed, especially among very young children, the elderly, and persons with chronic medical conditions, compared to seasons when influenza A (H1N1) or influenza B predominated.

The Philadelphia Department of Public Health (PDPH) will provide updates on influenza activity in the form of a weekly surveillance report posted on the Health Information Portal (<https://hip.phila.gov>) each Friday throughout the season.

Influenza & Non-Influenza Respiratory Viruses Reporting Requirements

PDPH requests that healthcare providers and/or infection prevention practitioners report the following cases to the health department for the 2014-2015 season:

- **Hospitalized persons** with laboratory-confirmed influenza (including positive rapid antigen tests)
- **Fatal cases** of laboratory-confirmed (including positive rapid tests) or suspected influenza, RSV, rhinovirus, adenovirus, parainfluenza, and human metapneumovirus
- **Suspect novel influenza A cases** including those with:
 - Influenza A virus detected but not subtypeable
 - Influenza-like illness (temperature $\geq 100^{\circ}$ F, cough, sore throat, rhinorrhea, myalgias) without other known etiology) **and** report 1) direct or indirect exposure to swine or live poultry **or** 2) travel to area with ongoing transmission of avian influenza within week prior to symptom onset
- **Outbreaks of respiratory virus** in a long-term care facility, school, childcare center, or shelter are also reportable. Outbreaks are defined as one laboratory-confirmed case or three or more cases of ILI in a facility. Outbreaks can be reported to PDPH by calling 215-685-6740.

SUMMARY POINTS

- Influenza A (H3N2) viruses have been the predominant strain detected so far this year
- 52% of H3N2 flu isolates are antigenically drifted from the vaccine strain
- Flu vaccine is still recommended to reduce the likelihood of infection and risk of severe illness
- Initiate antiviral treatment with oseltamivir or zanamivir as early as possible in persons who have severe illness or are at higher risk for influenza complications
- Report all hospitalized cases with laboratory confirmed influenza to DDC
- Report all fatal cases of laboratory confirmed influenza and noninfluenza respiratory viruses (RSV, adenovirus, rhinovirus, parainfluenza) to DDC.

Cases should be reported to the Division of Disease Control (DDC) by phone (215-685-6748) or by fax to 215-238-6947. A fillable PDF version of the case report form can be found at <https://hip.phila.gov>.

Influenza Treatment Recommendations

All influenza viruses tested for resistance to neuraminidase inhibitors this season, including the drifted H3N2 strain, have shown susceptibility to both oseltamivir and zanamivir. Because of the drifted influenza viruses this season, CDC has emphasized the importance of use of neuraminidase inhibitor agents when indicated for the treatment and prevention of influenza, as an adjunct to vaccination.

Clinicians are encouraged to initiate early treatment of suspected or confirmed influenza with antiviral medications, oseltamivir (Tamiflu®) or zanamivir (Relenza®), in patients who:

- have severe or complicated illness, including hospitalization
 - are at higher risk for influenza complications (e.g. persons with chronic or immunosuppressive medical conditions, those <2 or >65 years of age, pregnant and postpartum women, persons with a BMI \geq 40, and those with neurologic or neurodevelopmental conditions)
 - are suspected of having novel influenza A infection
 - are residents of nursing homes and other chronic care facilities
- Antiviral treatment is most effective if initiated within 48 hours of illness onset, however, there may be some treatment benefit in patients with severe complicated illness even if started after 48 hours of illness.
- Most patients with influenza-like illness do not require diagnostic testing for clinical management. Antiviral treatment with oseltamivir or zanamivir should not wait for laboratory confirmation of influenza since delayed treatment can affect efficacy and a negative rapid test result does not rule out influenza.
- Antiviral chemoprophylaxis should be used for prevention of influenza in institutional outbreaks and in persons who are at high risk for influenza complications and are unable to receive the flu vaccine or received the flu vaccine <2 weeks from their exposure.

Additional Resources

CDC Influenza Information for Health Professionals: <http://www.cdc.gov/flu/professionals/index.htm>

New *Stop the Cough* Poster: <https://hip.phila.gov/xv/DiseaseInformation/Influenza/tabid/143/Default.aspx>

2014-2015 INFLUENZA REPORT FORM HOSPITALIZED OR FATAL CASES



Philadelphia Department of Public Health
Division of Disease Control
 Acute Communicable Disease Program
 500 South Broad St, Philadelphia, 19146
Telephone (215) 685-6740 Fax (215) 238-6947
Form Available at hip.phila.gov

Use this form to report suspected and confirmed cases of influenza that are either hospitalized (24 hours or more) or fatal. All other cases do not need to be reported by name, unless indicative of a new outbreak in a facility or institution requiring special containment measures.

PATIENT INFORMATION

Report Date ____/____/____	Last Name	First Name	D.O.B. ____/____/____	Age (yrs)	Sex <input type="checkbox"/> M <input type="checkbox"/> F	Race/ Ethnicity
Street Address			City		Zip Code	
Phone #		<input type="checkbox"/> Lives in congregate setting Specify Location: _____			<input type="checkbox"/> Attends school/ daycare Specify Location: _____	

HOSPITALIZATION AND LABORATORY INFORMATION

HOSPITALIZATION Y=Yes; N=No; DK=Don't Know

Hospital Name: _____ Admission Date: ____/____/____ Discharge Date: ____/____/____ *Admitted to ICU? Y N DK

Diagnosing Physician: _____ *Fatal? Y N DK

Medical Record #: _____ Date of Death: ____/____/____

Physician Phone #: _____ *If yes to either question, complete clinical information below.

LABORATORY (Check all POSITIVE tests)

Laboratory Name: _____ Rapid Antigen Test, Influenza B, Culture

Specify flu type: A B A/B Influenza B, DFA/IFA

Specimen Collection Date: ____/____/____ Influenza A, Culture Influenza B, PCR

Source (if not nasopharynx): _____ Influenza A, DFA/IFA Other Respiratory Virus,
Specify: _____

Influenza A, PCR

FOR ICU OR FATAL CASES ONLY – PLEASE COMPLETE ADDITIONAL CLINICAL INFORMATION

SYMPTOMS

Onset Date: ____/____/____

Fever, Highest temp (F): _____ Nasal Congestion Headaches Fatigue Vomiting

Cough Conjunctivitis Muscle Aches Nausea Diarrhea

Sore Throat Shortness of Breath Chills Other, Specify: _____

UNDERLYING CONDITIONS

None Diabetes Pregnant

Unknown Immunosuppression, Specify: _____ Postpartum

Asthma Kidney Disease Smokes Tobacco

Cardiovascular Disease Morbidly Obese (BMI >40) Other, Specify: _____

Chronic Obstructive Pulmonary Disease (COPD) Neurological, Specify: _____

MEDICAL COMPLICATIONS

None Acute Respiratory Distress Syndrome (ARDS) Bacteremia Pneumonia (X-ray confirmed) Other, Specify: _____

CLINICAL MANAGEMENT

Was antiviral treatment prescribed? Y N DK Start Date: ____/____/____ End Date: ____/____/____

Antiviral Drug: Oseltamivir (Tamiflu) Zanamivir (Relenza) Other, Specify: _____

Was antibiotic treatment prescribed? Y N DK Indication: _____

Was mechanical ventilation used? Y N DK

VACCINATION HISTORY Received current seasonal flu vaccine? Y N DK Date Dose Received: ____/____/____

REPORTER INFORMATION

Facility Name	Reporter Name	Reporter Phone #	Title: <input type="checkbox"/> ICP <input type="checkbox"/> DO/MD <input type="checkbox"/> PA/NP <input type="checkbox"/> RN <input type="checkbox"/> Other, Specify: _____
---------------	---------------	------------------	---

Please fax report to (215) 238-6947 upon completion. If case is associated with a suspect outbreak, please indicate on form.