North Carolina Department of Health and Human Services
Division of Public Health • Epidemiology Section
Communicable Disease Branch

ATTENTION HEALTH CARE PROVIDERS:
Please report relevant clinical findings about this disease event to the local health department.

INFLUENZA, ADULT DEATH (≥18 YEARS OF AGE)
Confidential Communicable Disease Report—Part 2
NC DISEASE CODE: 76

REMINDER to Local Health Department staff: If sending this form to the Health Care Provider, remember to attach a cover letter from your agency indicating the part(s) of the form the provider should complete.

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate *(mm/dd/yyyy)* / /
						SSN

NC EDSS LAB RESULTS Verify if lab results for this event are in NC EDSS. If not present, enter results.

Specimen Date	Specimen #	Specimen Source	Type of Test	Test Result(s)	Description (comments)	Result Date	Lab Name—City/State
/ /						/ /	
/ /						/ /	
/ /						/ /	

NC EDSS PART 2 WIZARD COMMUNICABLE DISEASE

Is/was patient symptomatic for this disease? ☐Y ☐N ☐U
If yes, symptom onset date (mm/dd/yyyy): __/__/____
CHECK ALL THAT APPLY:
Fever ☐Y ☐N ☐U
Highest measured temperature : _____
Temperature taken:
☐Orally ☐Rectally ☐Other ☐Unknown
Fever onset date (mm/dd/yyyy):____/____/____
Shock ☐Y ☐N ☐U
Encephalitis ☐Y ☐N ☐U
Encephalopathy ☐Y ☐N ☐U
Seizures / convulsions ☐Y ☐N ☐U
☐New onset
☐Exacerbation of underlying seizure disorder
☐Other
☐Unknown
Acute Respiratory Distress Syndrome (ARDS) ☐Y ☐N ☐U
Pneumonia ☐Y ☐N ☐U
Confirmed by X-ray or CT scan? ☐Y ☐N ☐U
Bacteremia ☐Y ☐N ☐U
Date of positive blood culture____/____/____
Septicemia / sepsis ☐Y ☐N ☐U
Another viral co-infection ☐Y ☐N ☐U
Please specify:_____

Was a specimen collected for bacterial culture from a normally sterile site (e.g., blood, cerebrospinal fluid [CSF], tissue, or pleural fluid)? ☐Y ☐N ☐U
If yes, please enter all positive results in the laboratory package.

Were other respiratory specimens collected for bacterial culture (e.g., sputum, ET tube aspirate)? ☐Y ☐N ☐U
If yes, please enter all positive results in the laboratory package.
Moderate to severe developmental delay ☐Y ☐N ☐U
Diabetes ☐Y ☐N ☐U
Cardiovascular/heart disease ☐Y ☐N ☐U
If yes, specify:_____
Chronic lung disease (including asthma) ☐Y ☐N ☐U
If yes, specify:_____
Metabolic disorder ☐Y ☐N ☐U
If yes, specify:_____
Pregnant ☐Y ☐N ☐U
If yes specify gestational age: _____weeks
Hematologic disorder ☐Y ☐N ☐U
Seizure disorder ☐Y ☐N ☐U
Kidney disease ☐Y ☐N ☐U
If yes, specify:_____
Any immunosuppressive conditions ☐Y ☐N ☐U
If yes, specify:_____
Neuromuscular disorder ☐Y ☐N ☐U
If yes, specify:_____
Skin or soft tissue infection ☐Y ☐N ☐U
If yes, specify:_____
Other underlying illness ☐Y ☐N ☐U
If yes, specify:_____

Was the patient receiving any of the following therapies prior to illness onset? (check all that apply)
☐Antiviral therapy (specify_____)
☐Chemotherapy or radiation therapy
☐Steroids by mouth or injection
☐Other immunosuppressive therapy (specify_____)
Did the patient receive an antiviral for this illness? ☐Y ☐N ☐U
Specify antiviral name:
☐Amantadine (Symmetrel)
☐Oseltamivir (Tamiflu)
☐Rimantadine (Flumadine)
☐Zanamivir (Relenza)
☐Other_____
☐Unknown
Date antiviral treatment began: ____/____/____
Number of days taken:_____
Did the patient receive medical care for this illness? ☐Y ☐N ☐U
Specify level(s) of care (check all that apply):
☐Outpatient ☐ICU
☐Emergency department ☐Other
☐Inpatient ☐Unknown
Did the patient require mechanical ventilation? ☐Y ☐N ☐U

(CONTINUED NEXT PAGE)

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate *(mm/dd/yyyy)* / /
						SSN

NC EDSS PART 2 WIZARD COMMUNICABLE DISEASE (CONTINUED)

Discharge/Final diagnosis:_____

Survived? ☐Y ☐N ☐U
Died? ☐Y ☐N ☐U
Died from this illness? ☐Y ☐N ☐U

Date of death (mm/dd/yyyy):____/____/____
Location of death:
- ☐ Home
- ☐ Emergency Department
- ☐ Hospital ICU
- ☐ Hospital inpatient
- ☐ En route to hospital
- ☐ Long-term care facility
- ☐ Other, specify:_____
- ☐ Unknown

Patient died in North Carolina? ☐Y ☐N ☐U
County of death:_____
Died outside NC? ☐Y ☐N ☐U
Specify where:_____
Autopsy performed? ☐Y ☐N ☐U
Patient autopsied in NC? ☐Y ☐N ☐U
County of autopsy:_____
☐ Autopsied outside NC, specify where:_____
Source of death information (select all that apply):
- ☐ Death certificate
- ☐ Autopsy report final conclusions
- ☐ Hospital/physician discharge summary
- ☐ Other

Pathology specimens sent to CDC? ☐Y ☐N ☐U
Did cardiac or respiratory arrest occur outside the hospital? ☐Y ☐N ☐U
Did the patient receive any seasonal influenza vaccine during the current season (before illness)? ☐Y ☐N ☐U

If yes, vaccine type:
- ☐ Inactivated influenza vaccine [injected]
- ☐ Live-attenuated influenza vaccine (LAIV) [nasal spray]
- ☐ Other, specify _____
- ☐ Unknown vaccine type

How many doses did the patient receive and what was the timing of each dose?
- ☐ 1 dose ONLY
  - ☐ <14 days prior to illness onset
  - ☐ ≥14 days prior to illness onset
  - Date dose given (mm/dd/yyyy):____/____/____
- ☐ 2 doses
  - ☐ 2nd dose given <14 days prior to illness onset
  - ☐ 2nd dose given ≥14 days prior to illness onset
  - Date of 1st dose (mm/dd/yyyy):____/____/____
  - Date of 2nd dose (mm/dd/yyyy):____/____/____

Did the patient receive any pandemic H1N1 influenza vaccine during the current season (before illness)? ☐Y ☐N ☐U

If yes, vaccine type:
- ☐ Inactivated influenza vaccine [injected]
- ☐ Live-attenuated influenza vaccine (LAIV) [nasal spray]
- ☐ Other, specify _____
- ☐ Unknown vaccine type

How many doses did the patient receive and what was the timing of each dose?
- ☐ 1 dose ONLY
  - ☐ <14 days prior to illness onset
  - ☐ ≥14 days prior to illness onset
  - Date dose given (mm/dd/yyyy):____/____/____
- ☐ 2 doses
  - ☐ 2nd dose given <14 days prior to illness onset
  - ☐ 2nd dose given ≥14 days prior to illness onset
  - Date of 1st dose (mm/dd/yyyy):____/____/____
  - Date of 2nd dose (mm/dd/yyyy):____/____/____

Did the patient receive any influenza vaccine in previous seasons? ☐Y ☐N ☐U

CLINICAL FINDINGS

Fatigue or malaise or weakness ☐Y ☐N ☐U
Chills or rigors ☐Y ☐N ☐U
Dehydration ☐Y ☐N ☐U
Altered mental status ☐Y ☐N ☐U
Coma ☐Y ☐N ☐U
Meningitis ☐Y ☐N ☐U
Muscle aches / pains (myalgias) ☐Y ☐N ☐U
Myositis ☐Y ☐N ☐U
Sore Throat ☐Y ☐N ☐U
Cough ☐Y ☐N ☐U
Onset date (mm/dd/yyyy):____/____/____
Apnea ☐Y ☐N ☐U
Shortness of breath/difficulty breathing/ respiratory distress ☐Y ☐N ☐U
Did the patient have a chest x-ray? ☐Y ☐N ☐U
If yes, describe (check all that apply)
- ☐ Normal
- ☐ Pleural effusion
- ☐ Infiltrate
- ☐ Other
- ☐ Diffuse infiltrates/findings suggestive of ARDS

Cardiac arrhythmias or cardiac arrest ☐Y ☐N ☐U
Myocarditis ☐Y ☐N ☐U
Nausea ☐Y ☐N ☐U
Vomiting ☐Y ☐N ☐U
Abdominal pain or cramps ☐Y ☐N ☐U
Diarrhea ☐Y ☐N ☐U
Elevated liver enzymes ☐Y ☐N ☐U
Leukopenia ☐Y ☐N ☐U
Other symptoms, signs, clinical findings, or complications consistent with this illness ☐Y ☐N ☐U
Please specify:

TREATMENT

Was antiviral prophylaxis given prior to illness onset? ☐Y ☐N ☐U
If yes, specify:_____
Did the patient require supplemental oxygen? ☐Y ☐N ☐U
Date started (mm/dd/yyyy):____/____/____
Did the patient require high frequency oscillatory ventilation? ☐Y ☐N ☐U
Date started (mm/dd/yyyy):____/____/____
Did the patient require extracorporeal membrane oxygenation (ECMO)? ☐Y ☐N ☐U
Date started (mm/dd/yyyy):____/____/____

HOSPITALIZATION INFORMATION

Was patient hospitalized for this illness >24 hours? ☐Y ☐N ☐U
1. Hospital name: _____
City, State:_____
Hospital contact name: _____
Telephone: (_____)_____
Admit date _____/_____/_____
Discharge date _____/_____/_____

If applicable:
2. Hospital name: _____
City, State:_____
Hospital contact name: _____
Telephone: (_____)_____
Admit date _____/_____/_____
Discharge date _____/_____/_____

CASE INTERVIEWS/INVESTIGATIONS

Were interviews conducted with others? ☐Y ☐N ☐U
Who was interviewed?

Were health care providers consulted? ☐Y ☐N ☐U
Who was consulted?

Medical records reviewed (including telephone review with provider/office staff)? ☐Y ☐N ☐U

Specify reason if medical records were not reviewed:

Notes on medical record verification:

Influenza, adult death

2009 Case Definition (North Carolina)

Clinical description:

An influenza-associated death is defined for surveillance purposes as a death resulting from a clinically compatible illness that was confirmed to be influenza (either seasonal or pandemic) by an appropriate laboratory or rapid diagnostic test. There should be no period of complete recovery between the illness and death.

Influenza-associated deaths in all persons aged <18 years should also be reported separately as "Influenza, Pediatric Death".

A death should not be reported if:

1. There is no laboratory confirmation of influenza virus infection.
2. The influenza illness is followed by full recovery to baseline health status prior to death.
3. After review and consultation there is an alternative agreed upon cause of death.

Laboratory criteria for diagnosis

Laboratory testing for influenza virus infection may be done on pre- or post-mortem clinical specimens, and include identification of influenza A virus (seasonal or pandemic) or influenza B virus infections by a positive result by at least one of the following:

- Influenza virus isolation in tissue cell culture from respiratory specimens;
- Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens;
- Immunofluorescent antibody staining (direct or indirect) of respiratory specimens;
- Rapid influenza diagnostic testing of respiratory specimens;
- Immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens;
- Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera*.

Case classification

Confirmed - A death meeting the clinical case definition that is laboratory confirmed.

Laboratory or rapid diagnostic test confirmation is required as part of the case definition; therefore, all reported deaths will be classified as confirmed.

Comment

*Serologic testing for influenza is available in a limited number of laboratories, and should only be considered as evidence of recent infection if a four-fold rise in influenza (HI) antibody titer is demonstrated in paired sera. Single serum samples are not interpretable.