SOUTH CAROLINA DEPARTMENT OF PUBLIC HEALTH

Influenza-Associated Mortality Case Report Form

SC Department of Public Health
Bureau of Communicable Disease Prevention and Control
Send to the Regional Health Department

A laboratory confirmed influenza-associated death is defined as a death resulting directly or indirectly from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test or autopsy report. There should be no period of complete recovery between the illness and death.

Patient Demographics

1. Name (Last, First, MI or Middle): _____	2. Address _____	3. City, State, Zip _____
4. County_____ 5. Age:____ ☐ Days ☐ Months ☐ Years	6. Date of birth: _____/ _____/ _____ MM DD YYYY	7a. Is sex known? ☐ Yes ☐No 7b. Sex: ☐ Male ☐ Female

8a. Is ethnicity known? ☐ Yes ☐ No

8b. Ethnicity: ☐ Hispanic or Latino ☐ Not Hispanic or Latino

9a. Is race known? ☐ Yes ☐ No

9b. Race: ☐ White ☐ Black ☐ Asian ☐ Native Hawaiian or Other Pacific Islander ☐ American Indian or Alaska Native

Death Information

10. Date of illness onset:_____/_____/_____ MM DD YYYY	11. Date of death: _____/ _____/ _____ MM DD YYYY	12. Was an autopsy performed? ☐ Yes ☐ No ☐ Unk

13 a. Did cardiac/respiratory arrest occur outside the hospital? ☐ Yes ☐ No ☐ Unk

13 b. Location of death: ☐ Outside the Hospital (e.g. home or in transit to hospital) ☐ Emergency Dept (ED)
☐ Inpatient ward ☐ ICU ☐ Other (specify): _____

13 c. If the death occurred in the hospital, what was the date of admission? _____/ _____/ _____
MM DD YYYY

Adapted from the CDC Influenza-Associated Pediatric Mortality Case Report Form OMB No. 0920-0004

CDC Laboratory Specimens

14 a. Were pathology specimens sent to CDC's Infectious Diseases Pathology Branch? ☐ Yes ☐ No ☐ Unk
Please provide the lab ID No. if known_____

14 b. Were influenza isolates or original clinical material sent to CDC's Influenza Division? ☐ Yes ☐ No ☐ Unk
Please provide the lab ID No. if known_____

Influenza Testing (check all that were used)

Test Type	Result	Specimen Collection Date
15. ☐ Commercial rapid diagnostic test	☐ Influenza A ☐ Influenza B ☐ Negative ☐ Influenza A/B (Not Distinguished) ☐ Influenza A (H1N1)pdm09 ☐ Influenza virus co-infection (specify)_____	____/ ____/ ____
☐ Viral culture	☐ Influenza A (Subtyping Not Done) ☐ Influenza A (H1N1)pdm09 ☐ Influenza A (H3) ☐ Influenza A (H3N2v) ☐ Influenza A (Unable To Subtype) ☐ Influenza B (Lineage Not Determined) ☐ Influenza B/Victoria lineage ☐ Influenza B/Yamagata lineage ☐ Influenza virus co-infection (specify)_____	____/ ____/ ____
☐ Fluorescent antibody (IFA or DFA)	☐ Influenza A (Subtyping Not Done) ☐ Influenza B ☐ Negative ☐ Influenza A (Unable To Subtype) ☐ Influenza A (H3) ☐ Influenza A (H1N1)pdm09 ☐ Influenza virus co-infection (specify)_____	____/ ____/ ____
☐ Enzyme immunoassay (EIA)	☐ Influenza A (Subtyping Not Done) ☐ Influenza B ☐ Negative ☐ Influenza A (Unable To Subtype) ☐ Influenza A (H3) ☐ Influenza A (H1N1)pdm09 ☐ Influenza virus co-infection (specify)_____	____/ ____/ ____
☐ RT-PCR	☐ Influenza A (Subtyping Not Done) ☐ Influenza A (H1N1)pdm09 ☐ Influenza A (H3) ☐ Influenza A (H1) (prior to 2010) ☐ Influenza A (H3N2v) ☐ Influenza A (Unable To Subtype) ☐ Influenza B (Lineage Not Determined) ☐ Influenza B/Victoria lineage ☐ Influenza B/Yamagata lineage ☐ Influenza virus co-infection (specify)_____ ☐ Negative	____/ ____/ ____
☐ Immunohistochemistry (IHC)	☐ Influenza A ☐ Influenza B ☐ Negative ☐ Influenza virus co-infection (specify)_____	____/ ____/ ____

Culture confirmation of bacterial pathogens from STERILE (Invasive) SITES

16 a. Was a specimen collected for bacterial culture from a normally sterile site (e.g., blood, cerebrospinal fluid [CSF], tissue, or pleural fluid)? Specimens collected greater than 24 hours after death are not sterile. ☐ Yes ☐ No ☐ Unk

16 b. If yes, please indicate the site from which the specimen was obtained and the result. *If more than one specimen type is positive and more than one organism is identified please indicate the organism cultured from each specimen type in the comments section.*

Specimen Type	Collection Date	Result
☐ Blood	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ Pleural fluid	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ CSF	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ Lung Tissue	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ Other _____	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ Unk		

16 c. If positive, please check the organism cultured.

☐ *Streptococcus pneumoniae*	☐ *Staphylococcus aureus,* methicillin sensitive (MSSA)	☐ *Haemophilus influenzae* not-type b
☐ Group A *Streptococcus*	☐ *Staphylococcus aureus,* methicillin resistant (MRSA)	☐ *Haemophilus influenzae* type b
☐ Other bacteria: _____ *(If reporting another viral co-infection please do so in section 18 Clinical Diagnosis and Complications)*	☐ *Staphylococcus aureus,* sensitivity not done	☐ *Pseudomonas aeruginosa*

Culture confirmation of bacterial pathogens from NON-STERILE SITES

16 d. Were other respiratory specimens collected for bacterial culture (e.g., sputum, ET tube aspirate)? ☐ Yes ☐ No ☐ Unk

16 e. If yes, please indicate the site from which the specimen was obtained and the result. *If more than one specimen type is positive and more than one organism is identified please indicate the organism cultured from each specimen type in the comments section.*

Specimen Type	Collection Date	Result
☐ Sputum	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ ET tube	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ Other _____	Date __/__/__	☐ Positive ☐ Negative ☐ Unk
☐ Unk		

Culture confirmation of bacterial pathogens from NON-STERILE SITES

16 f. If positive, please check the organism cultured.

☐ *Streptococcus pneumoniae*	☐ *Staphylococcus aureus,* methicillin sensitive (MSSA)	☐ *Haemophilus influenzae* not-type b
☐ Group A *Streptococcus*	☐ *Staphylococcus aureus,* methicillin resistant (MRSA)	☐ *Haemophilus influenzae* type b
☐ Other bacteria: _____ *(If reporting another viral co-infection please do so in section 18 Clinical Diagnosis and Complications)*	☐ *Staphylococcus aureus,* sensitivity not done	☐ *Pseudomonas aeruginosa*

Pathology confirmation of bacterial pathogens

16 g. Was a specimen (e.g., fixed lung tissue) collected from an autopsy for testing of bacterial pathogens by a local or state pathologist? *(If pathology results are available from CDC it is not necessary to input those results here, however please make sure to complete section 14 "CDC Laboratory Specimens")* ☐ Yes ☐ No ☐ Unk

If yes please indicate the results of these tests in the comments section at the end of the form.

Medical Care

17. Was the patient placed on mechanical ventilation? ☐ Yes ☐ No ☐ Unk

Clinical Diagnoses and Complications

18 a. Did complications occur during the acute illness? ☐ Yes ☐ No ☐ Unk

18 b. **If yes,** check all complications that occurred during the acute illness:

☐ Pneumonia (Chest X-Ray confirmed)	☐ Acute Respiratory Disease Syndrome (ARDS)	☐ Croup	☐ Seizures
☐ Bronchiolitis	☐ Encephalopathy/encephalitis	☐ Reye syndrome	☐ Shock
☐ Sepsis	☐ Hemorrhagic pneumonia/pneumonitis	☐ Cardiomyopathy/myocarditis	

☐ Another viral co-infection: _____ ☐ Other: _____

Clinical Diagnoses and Complications

19 a. Did the individual have any medical conditions that existed before the start of the acute illness? ☐ Yes ☐ No ☐ Unk

19 b. **If yes,** check all medical conditions that existed before the start of the acute illness:

☐ Moderate to severe developmental delay
☐ Hemoglobinopathy (e.g. sickle cell disease)
☐ Asthma/ reactive airway disease
☐ Diabetes mellitus
☐ History of febrile seizures
☐ Seizure disorder
☐ Cystic fibrosis
☐ Cardiac disease/congenital heart disease (specify) _____
☐ Renal disease (specify) _____
☐ Skin or soft tissue infection (SSTI)
☐ Chromosomal Abnormality/Genetic Syndrome (specify) _____
☐ Mitochondrial Disorder (specify) _____
☐ Chronic pulmonary disease (specify) _____
☐ Immunosuppressive condition (specify) _____
☐ Cancer (diagnosis and/or treatment began in previous 12 months) (specify)_____
☐ Endocrine disorder (specify) _____
☐ Obesity
☐ Cerebral Palsy
☐ Premature at birth (specify gestational age) ____ weeks
☐ Neuromuscular disorder (e.g. muscular dystrophy) (specify) _____
☐ Other Neurological disorder (specify) _____
☐ Pregnant (specify gestational age) _____ weeks
☐ Other (specify) _____

Medication and Therapy History

20 a. Was the patient receiving any of the following therapies **prior** to illness onset?
(if yes, check all that apply)

☐ Yes ☐ No ☐ Unk

☐Antiviral Prophylaxis ☐ Chronic aspirin therapy ☐ Chemotherapy or radiation therapy ☐ Steroids by mouth or injection

☐ Other immunosuppressive therapy:_____

20 b. Did the patient receive any of the following **after** illness onset? **(if yes, check all that apply)**

☐ Yes ☐ No ☐ Unk

☐ Antibiotic therapy specify_____ ☐ Antiviral therapy specify_____

Influenza Vaccine History

21. Did the patient receive any influenza vaccine during the current season (before illness) ☐ Yes ☐ No ☐ Unk

22. **If YES*,** please specify the influenza vaccine received before illness onset:
- ☐ Inactivated influenza vaccine (IIV3) *[injected]*
- ☐ Quadrivalent inactivated influenza vaccine (IIV4) *[injected]*
- ☐ Live-attenuated influenza vaccine (LAIV4) *[nasal spray]*
- ☐ Unk

23. **If YES*,** how many doses did the patient receive and what was the timing of each dose? (Enter vaccination dates if available)

☐ 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 onset ☐ 2nd dose given ≥14 days prior to onset	Date of 1st dose: _____/ _____/_____ MM DD YYYY	Date of 2nd dose: _____/ _____/ ____ MM DD YYYY

23b. IF the patient received two doses of influenza vaccine during the current season, please specify the SECOND influenza vaccine received before illness onset:
- ☐ Inactivated influenza vaccine (IIV3) *[injected]*
- ☐ Quadrivalent inactivated influenza vaccine (IIV4) *[injected]*
- ☐ Live-attenuated influenza vaccine (LAIV4) *[nasal spray]*
- ☐ Unk

24. Did the patient receive any influenza vaccine in previous seasons? ☐ Yes ☐ No ☐ Unk

24 a. If YES, and the patient was ≤ 8 years of age at time of death, have they received a total of 2 or more doses of influenza vaccine (does need not have been received in the same season or consecutive seasons)? ☐ Yes ☐ No ☐ Unk

25a. Were immunization records or information about influenza vaccination available for this case? ☐ Yes ☐ No ☐ Unk

25b. If yes, please check all sources of information on the patient's influenza vaccination history that were reviewed (please check all that apply).

☐ Patient's immunization record ☐ Medical records ☐ Coroner's report
☐ Immunization information system (registry) ☐ Parent/family member report ☐ News/media report
☐ Other (specify):_____

Submitted By: _____ Date: _____/ _____/ _____ MM DD YYYY
Phone No.: (_____)_____-_____
E-mail Address: _____

Case Investigation Closed: ☐ Yes ☐ No

Comments