Influenza-Associated Pediatric Mortality Case Report Form

STATE USE ONLY – DO NOT SEND INFORMATION IN THIS SECTION TO CDC

Last Name: ___________________________ First Name: ___________________________ County: ___________________________
Address: ___________________________ City: ___________________________ State, Zip: ___________________________

Patient Demographics


5. Age: ___________________________
   O Days
   O Months
   O 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? O Yes O No O Unknown

13 a. Did cardiac/respiratory arrest occur outside the hospital? O Yes O No O Unknown

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

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

CDC Laboratory Specimens

14 a. Were pathology specimens sent to CDC’s Infectious Diseases Pathology Branch? O Yes O No O Unknown
   Please provide the lab ID No. if known __________________

14 b. Were influenza isolates or original clinical material sent to CDC’s Influenza Division? O Yes O No O Unknown
   Please provide the lab ID No. if known __________________

Public reporting burden of this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA (0920-0004).
### Influenza Testing (check all that were used)

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Specimen Collection Date</th>
</tr>
</thead>
</table>
| 15. Commercial rapid diagnostic test | O Influenza A  
O Influenza A/B (Not Distinguished)  
O Influenza A (H1N1)pdm09  
O Influenza virus co-infection (specify) | __/__/__ |
| 16. Viral culture              | O Influenza A (Subtyping Not Done)  
O Influenza A (H3)  
O Influenza A (H3)  
O Influenza B/Victoria lineage  
O Influenza virus co-infection (specify) | __/__/__ |
| 17. Fluorescent antibody (IFA or DFA) | O Influenza A (Subtyping Not Done)  
O Influenza A (H3)  
O Influenza virus co-infection (specify) | __/__/__ |
| 18. Enzyme immunoassay (EIA)   | O Influenza A (Subtyping Not Done)  
O Influenza A (H3)  
O Influenza A (H1N1)pdm09  
O Influenza virus co-infection (specify) | __/__/__ |
| 19. RT-PCR                     | O Influenza A (Subtyping Not Done)  
O Influenza A (H3)  
O Influenza B (Lineage Not Determined)  
O Influenza virus co-infection (specify) | __/__/__ |
| 20. Immunohistochemistry (IHC) | O Influenza A  
O Influenza B  
O 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. O Yes  O No  O Unknown

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.

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Collection Date</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive  O Negative  O Unknown</td>
</tr>
<tr>
<td>Pleural fluid</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive  O Negative  O Unknown</td>
</tr>
<tr>
<td>CSF</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive  O Negative  O Unknown</td>
</tr>
<tr>
<td>Lung Tissue</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive  O Negative  O Unknown</td>
</tr>
<tr>
<td>Other</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive  O Negative  O Unknown</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**:  
  - Staphylococcus aureus, sensitivity **not done**
  - Pseudomonas aeruginosa

(If reporting another viral co-infection please do so in section 18 Clinical Diagnosis and Complications)
### 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)?

- Ο Yes
- Ο No
- Ο Unknown

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.*

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Collection Date</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sputum</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O Negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O Unknown</td>
</tr>
<tr>
<td>ET tube</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O Negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O Unknown</td>
</tr>
<tr>
<td>Other</td>
<td>Date <strong>/</strong>/__</td>
<td>O Positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O Negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O Unknown</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

- Ο *Streptococcus pneumoniae*
- Ο *Staphylococcus aureus*, methicillin **sensitive** (MSSA)
- Ο *Haemophilus influenzae* not-type b
- Ο *Group A Streptococcus*
- Ο *Staphylococcus aureus*, methicillin **resistant** (MRSA)
- Ο *Haemophilus influenzae* type b
- Ο *Other bacteria*: *Staphylococcus aureus*, **sensitivity not done**
- Ο *Pseudomonas aeruginosa*

(If reporting another viral co-infection please do so in section 18 Clinical Diagnosis and Complications)

### 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”.*

- Ο Yes
- Ο No
- Ο Unknown

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?

- Ο Yes
- Ο No
- Ο Unknown
### Clinical Diagnoses and Complications

18 a. Did complications occur during the acute illness?  
- O Yes  
- O No  
- O Unknown

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: ___________________________________________

19 a. Did the child have any medical conditions that existed before the start of the acute illness?  
- O Yes  
- O No  
- O Unknown

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  
- □ Unknown  

- □ 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  
- □ Unknown

- □ 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
   - Unknown

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]
   - Unknown

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

<table>
<thead>
<tr>
<th></th>
<th>1 dose</th>
<th>2 doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>only</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 doses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;14 days prior to illness onset</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥14 days prior to illness onset</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2nd dose given &lt;14 days prior to onset</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2nd dose given ≥14 days prior to onset</td>
</tr>
</tbody>
</table>

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]
   - Unknown

24. Did the patient receive any influenza vaccine in previous seasons?
   - Yes
   - No
   - Unknown

24a. If YES, and patient was ≤8 years of age at the time of death, did they receive 2 doses of vaccine during a previous season?
   - Yes
   - No
   - Unknown

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

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 report
   - News/media report
   - Other (specify): ____________________________

Submitted By: ____________________________ Date: __/__/____
Phone No.: (______) - ________ MM DD YYYY
E-mail Address: ____________________________

Case Investigation Closed: Yes  No