Human Infection with Novel Influenza A Virus
Severe Outcomes

Form Approved
OMB No. **0920**-0004

This form is intended to be used as a supplement to the Novel Influenza A Case Report Form for patients with severe outcomes (hospitalization or death). Please complete all sections of this form for each patient with a severe outcome in addition to the Novel Influenza A Case Report Form. Once this form is complete, please submit it as an email attachment to CaseReportForms@cdc.gov or fax the completed form to 404-471-8119.

I. Reporter Information

State/Territory _____ State/Territory Epi Case ID _____ State/Territory Lab ID _____

Date form completed: ____/____/_____ CDC Case ID _____

Person completing form: First Name:_____ Last Name:_____ Phone: _____ Email:_____

What are the source(s) of data for this report? (check all that apply) ☐ Medical chart ☐ Death certificate ☐ Case report form ☐ Other_____

II. Patient Information and Medical Care

1. Patient Date of birth: ____/____/_____ (mm/dd/yyyy)

2. Did the patient have an outpatient or ER medical care encounter during this illness? ☐ Yes, date: ____/____/_____ (if multiple, list most recent) ☐ No ☐ Unknown

3. Was the patient admitted to the hospital for this illness? ☐ Yes, date: ____/____/_____ Time: ____:____ ☐ AM ☐ PM ☐ No ☐ Unknown

4. Was patient hospitalized previously at another facility during this illness? ☐ Yes ☐ No ☐ Unknown

Admission date: ____/_____/_____ Discharge date: ____/_____/_____ Was discharge from prior hospital a transfer? ☐ Yes ☐ No

Please note initial vital signs at hospital admission/ER presentation. Date taken: ____/____/_____ (mm/dd/yyyy)

5. Body Mass Index:	_____	**6.** Height	_____	☐ Inches ☐ Cm	☐ Height Unknown	**7.** Weight:	_____	☐ Lbs. ☐ Kg ☐ Weight Unknown

8. Blood Pressure ____/____ **9.** Respiratory Rate _____ per min **10.** Heart Rate _____ beats/min Temperature: _____ ☐°C ☐°F

11. O_2 Sat _____% **12.** Fraction of inspired oxygen _____ ☐ % ☐ L **13.** Using: ☐ O_2 mask ☐ room air ☐ ventilator Specify O_2 mask type:_____

III. Illness Signs and Symptoms

14. Please mark all signs and symptoms experienced or listed in the admission note. Date of initial symptom onset: ____/____/_____

☐ Fever (measured) highest temp. _____ ☐°C ☐°F Date of fever onset ____/____/_____ (mm/dd/yyyy)
☐ Feverishness (temperature not measured)
☐ Cough
☐ With sputum (i.e., productive)
☐ Hemoptysis or bloody sputum
☐ Sore throat
☐ Runny nose (rhinorrhea)
☐ Dyspnea/difficulty breathing
☐ Chest pain
☐ Wheezing
☐ Chills
☐ Headache
☐ Excessive crying/fussiness (< 5 years old)
☐ Fatigue/weakness
☐ Muscle pain/myalgia
Location _____
☐ Seizure
☐ Altered mental status
☐ Red or draining eyes (conjunctivitis)
☐ Abdominal pain
☐ Vomiting
☐ Diarrhea
☐ Rash, location _____
☐ Other_____

IV. Patient Medical History

15. Does the patient have any of the following pre-existing medical conditions? Check all that apply.

15a. ☐ **Asthma/Reactive Airway Disease**

15b. ☐ **Chronic Lung Disease**
☐ Emphysema/COPD
☐ Other:_____

15c. ☐ **Chronic Metabolic Disease**
☐ Diabetes
Insulin dependent ☐ Yes ☐ No ☐ Unknown
☐ Other:_____

15d. ☐ **Blood disorders/Hemoglobinopathy**

15h. ☐ **Immunocompromising Condition**
☐ HIV infection
☐ AIDS or CD4 count < 200
☐ Stem cell transplant (e.g., bone marrow transplant)
☐ Organ transplant
☐ Cancer diagnosis within last 12 months (excluding non-melanoma skin cancer) Type:_____
☐ Chemotherapy within last 12 months
☐ Primary immune deficiency
☐ Chronic steroid therapy (within 2 weeks of admission)
☐ Other: _____

15i. ☐ **Renal Disease**

☐ Sickle cell disease
☐ Splenectomy/Asplenia
☐ Other:_____

15e. ☐ **Cardiovascular Disease (excluding hypertension)**
☐ Atherosclerotic cardiovascular disease
☐ Cerebral vascular incident/Stroke
With disability ☐ Yes ☐ No ☐ Unknown
☐ Congenital heart disease
☐ Coronary artery disease (CAD)
☐ Heart failure/Congestive heart failure
☐ Other:_____

15f. ☐ **Neuromuscular or Neurologic disorder**
☐ Muscular dystrophy
☐ Multiple sclerosis
☐ Mitochondrial disorder
☐ Myasthenia gravis
☐ Cerebral palsy
☐ Dementia
☐ Severe developmental delay
☐ Plegias/Paralysis
☐ Epilepsy/Seizure disorder
☐ Other:_____

15g. ☐ **History of Guillain-Barré Syndrome**

☐ Chronic kidney disease/chronic renal insufficiency
☐ End stage renal disease
☐ Dialysis
☐ Nephrotic syndrome
☐ Other:_____

15j. ☐ **Other**
☐ Liver disease
☐ Scoliosis
☐ Obese or BMI ≥ 30
☐ Morbidly obese or BMI ≥ 40
☐ Down syndrome
☐ Pregnant, gestational age in weeks: _____ ☐ Unknown
☐ Post-partum (≤ 6 weeks)
☐ Current smoker
☐ Drug abuse
☐ Alcohol abuse
☐ Other:_____
_____
_____

PEDIATRIC CASES ONLY (<18 years old)

Abnormality of upper airway	☐ Yes	☐ No	☐ Unknown
History of febrile seizures	☐ Yes	☐ No	☐ Unknown
Premature	☐ Yes	☐ No	☐ Unknown

(gestational age < 37 weeks at birth for patients < 2yrs)
If yes, specify gestation age at birth in weeks: _____
☐ Unknown gestational age at birth

V. Hematology and Serum Chemistries

16. Were any hematology or serum chemistries performed at hospital admission/presentation to care? ☐ Yes ☐ No (skip to Q. 35) ☐ Unknown (skip to Q. 35)

Please note initial values at admission/presentation to care. Date values were taken: ____/____/_____ (mm/dd/yyyy)

17. White blood cell count (WBC)	cells/mm^3	**19.** Hematocrit (Hct)	%	**24.** Serum creatinine	mg/dL
18. Differential: Neutrophils	%	**20.** Platelets (Plt)	10^3/mm^3	**25.** Serum glucose	mg/dL
Bands	%	**21.** Sodium (Na)	U/L	**26.** SGPT/ALT	U/L
Lymphocytes	%	**21.** Potassium (K)	U/L	**27.** SGOT/AST	U/L
Eosinophils	%	**22.** Bicarbonate (HCO_3)	U/L	**28.** Total bilirubin	mg/dL
		23. Serum albumin	g/dL	**29.** C-reactive protein (CRP)	mg/dL

Please describe other significant lab findings (e.g., CSF, protein).

Type of test	Specimen type	Date (mm/dd/yyyy)	Result
31.		____/____/_____	
32.		____/____/_____	
33.		____/____/_____	
34.		____/____/_____	

VI. Bacterial Pathogens – *Sterile or respiratory site only*

35. Was a pneumococcal urinary antigen test performed? ☐ Yes ☐ No ☐ Unknown
If yes, result: ☐ Positive ☐ Negative ☐ Unknown

35. Was a *Legionella* urinary antigen test performed? ☐ Yes ☐ No ☐ Unknown
If yes, result: ☐ Positive ☐ Negative ☐ Unknown

35. Were any bacterial culture tests performed (regardless of result)? ☐ Yes ☐ No (skip to Q.41) ☐ Unknown (skip to Q.41)

36. Indicate sites from which specimens were collected (check all that apply): ☐ Blood ☐ Cerebrospinal fluid (CSF) ☐ Bronchoalveolar lavage (BAL) ☐ Sputum ☐ Pleural fluid ☐ Endotracheal aspirate ☐ Other:_____

37. Was there culture confirmation of any bacterial infection? ☐ Yes ☐ No (skip to Q.41) ☐ Unknown (skip to Q.41)

38a. Positive Culture 1 collection date: _____/_____/_____ (mm/dd/yyyy)

38b. Specimen type: ☐ Blood ☐ Cerebrospinal fluid (CSF) ☐ Bronchoalveolar lavage (BAL) ☐ Sputum ☐ Pleural fluid ☐ Endotracheal aspirate ☐ Other:_____

38c. Pathogen(s) identified: ☐ *S. aureus* ☐ *S. pyogenes* ☐ *S. pneumoniae* ☐ *H. influenzae* ☐ Other:_____

38d. If *Staphylococcus aureus*, specify: ☐ Methicillin resistant (MRSA) ☐ Methicillin sensitive (MSSA) ☐ Sensitivity unknown

39a. Positive Culture 2 collection date: _____/_____/_____ (mm/dd/yyyy)
39b. Specimen type: ☐ Blood ☐ Cerebrospinal fluid (CSF) ☐ Bronchoalveolar lavage (BAL) ☐ Sputum ☐ Pleural fluid ☐ Endotracheal aspirate ☐ Other:_____
39c. Pathogen(s) identified: ☐ *S. aureus* ☐ *S. pyogenes* ☐ *S. pneumoniae* ☐ *H. influenzae* ☐ Other:_____
39d. If *Staphylococcus aureus*, specify: ☐ Methicillin resistant (MRSA) ☐ Methicillin sensitive (MSSA) ☐ Sensitivity unknown

40a. Positive Culture 3 collection date: _____/_____/_____ (mm/dd/yyyy)
40b. Specimen type: ☐ Blood ☐ Cerebrospinal fluid (CSF) ☐ Bronchoalveolar lavage (BAL) ☐ Sputum ☐ Pleural fluid ☐ Endotracheal aspirate ☐ Other:_____
40c. Pathogen(s) identified: ☐ *S. aureus* ☐ *S. pyogenes* ☐ *S. pneumoniae* ☐ *H. influenzae* Other:_____
40d. If *Staphylococcus aureus*, specify: ☐ Methicillin resistant (MRSA) ☐ Methicillin sensitive (MSSA) ☐ Sensitivity unknown

VII. Respiratory Viral Pathogens

41. Was the patient tested for any other viral pathogens? ☐ Yes ☐ No (skip to Q.42) ☐ Unknown (skip to Q.42)

	Positive	Negative	Not Tested/Unknown	Collection Date	Specimen Type
a. Respiratory syncytial virus/RSV	☐	☐	☐	____/____/_____	_____
b. Adenovirus	☐	☐	☐	____/____/_____	_____
c. Parainfluenza 1	☐	☐	☐	____/____/_____	_____
d. Parainfluenza 2	☐	☐	☐	____/____/_____	_____
e. Parainfluenza 3	☐	☐	☐	____/____/_____	_____
f. Human metapneumovirus	☐	☐	☐	____/____/_____	_____
g. Rhinovirus	☐	☐	☐	____/____/_____	_____
h. Coronavirus	☐	☐	☐	____/____/_____	_____
i. Other, specify: _____	☐	☐	☐	____/____/_____	_____
j. Other, specify: _____	☐	☐	☐	____/____/_____	_____

VIII. Medications

42. Did the patient receive influenza antiviral medications during illness? ☐ **Yes** ☐ **No** ☐ **Unknown**

		Date started	Date stopped	Frequency	Dose
Oseltamivir (Tamiflu)	☐ PO ☐ IV ☐ Inhaled	____/____/_____	____/____/_____	☐ QD ☐ BID ☐ TID	
Zanamivir (Relenza)	☐ PO ☐ IV ☐ Inhaled	____/____/_____	____/____/_____	☐ QD ☐ BID ☐ TID	
Peramivir	☐ PO ☐ IV ☐ Inhaled	____/____/_____	____/____/_____	☐ QD ☐ BID ☐ TID	
Other influenza antiviral:_____	☐ PO ☐ IV ☐ Inhaled	____/____/_____	____/____/_____	☐ QD ☐ BID ☐ TID	
Other influenza antiviral:_____	☐ PO ☐ IV ☐ Inhaled	____/____/_____	____/____/_____	☐ QD ☐ BID ☐ TID	

43. Did the patient receive antibiotics during the illness? ☐ **Yes** ☐ **No** ☐ **Unknown**

If yes, name		Date started	Date stopped	Dose
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	

44. Did the patient receive steroids (excluding inhaled steroids or one time injections) or other immune modulating treatment specifically for this illness? ☐ **Yes** ☐ **No** ☐ **Unknown**

If yes, name		Date started	Date stopped	Dose
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	
	☐ PO ☐ IV ☐ IM	____/____/_____	____/____/_____	

45. Additional treatment comments:

IX. Chest Radiograph – *Based on final impression/conclusion of the radiology report*

Please include a copy of the radiology report with the form.

46. Did the patient have a chest x-ray *within 3 days* of admission? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.52) ☐ Unknown (skip to Q.52)

47. If yes, was the chest x-ray abnormal? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.52) ☐ Unknown (skip to Q.52)

48. For the abnormal chest x-ray, please transcribe the final impression/conclusion and check all that apply:

Final impression/conclusion:

☐ **Consolidation:** →	☐ Single lobar infiltrate	☐ Multi-lobar infiltrate (unilateral)	☐ Multi-lobar infiltrate (bilateral)
	☐ Lobar or segmental collapse	☐ Cavitation/Abscess/Necrosis	☐ Round pneumonia
☐ **Other Infiltrate:** →	☐ Alveolar (air space) disease	☐ Interstitial disease	☐ Mixed (airspace and interstitial) disease
☐ **Pleural Effusion:** →	☐ Unilateral	☐ Bilateral	
☐ **Bronchiolitis:** →	☐ Complicated	☐ Uncomplicated	
☐ **Other:** →	☐ Air leak/Pneumothorax	☐ Lymphadenopathy	☐ Chest wall invasion
	☐ Specify:_____		

49. Did the patient have another chest x-ray *within 3 days* of admission? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.52) ☐ Unknown (skip to Q.52)

50. If yes, was the chest x-ray abnormal? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.52) ☐ Unknown (skip to Q.52)

51. For the abnormal chest x-ray, please transcribe the final impression/conclusion and check all that apply:

Final impression/conclusion:

☐ **Consolidation:** →	☐ Single lobar infiltrate	☐ Multi-lobar infiltrate (unilateral)	☐ Multi-lobar infiltrate (bilateral)
	☐ Lobar or segmental collapse	☐ Cavitation/Abscess/Necrosis	☐ Round pneumonia
☐ **Other Infiltrate:** →	☐ Alveolar (air space) disease	☐ Interstitial disease	☐ Mixed (airspace and interstitial) disease
☐ **Pleural Effusion:** →	☐ Unilateral	☐ Bilateral	
☐ **Bronchiolitis:** →	☐ Complicated	☐ Uncomplicated	
☐ **Other:** →	☐ Air leak/Pneumothorax	☐ Lymphadenopathy	☐ Chest wall invasion
	☐ Specify:_____		

X. Chest CT or MRI – *Based on final impression/conclusion of the radiology report please include a copy of the radiology report with the form.*

52. Did the patient have a chest <u>CT/MRI scan</u> *within 3 days of admission*? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.56) ☐ Unknown (skip to Q.56)

52. If yes, please select one: ☐ CT: contrast ☐ CT: non-contrast ☐ MRI

54. If yes, was the CT/MRI abnormal? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.56) ☐ Unknown (skip to Q.56)

55. For abnormal chest CT/ MRI, please check all that apply and please transcribe the final impression/conclusion:

Final impression/conclusion:

☐ **Consolidation:** →	☐ Single lobar infiltrate	☐ Multi-lobar infiltrate (unilateral)	☐ Multi-lobar infiltrate (bilateral)
	☐ Lobar or segmental collapse	☐ Cavitation/Abscess/Necrosis	☐ Round pneumonia
☐ **Other Infiltrate:** →	☐ Alveolar (air space) disease	☐ Interstitial disease	☐ Mixed (airspace and interstitial) disease
☐ **Pleural Effusion:** →	☐ Unilateral	☐ Bilateral	
☐ **Bronchiolitis:** →	☐ Complicated	☐ Uncomplicated	
☐ **Other:** →	☐ Air leak/Pneumothorax	☐ Lymphadenopathy	☐ Chest wall invasion
	☐ Specify:_____		

XI. Clinical Course and Severity of Illness

56. At any time during the current illness, did the patient require or have the diagnosis of :

a. Admission to intensive care unit (ICU) ☐ Yes ☐ No ☐ Unknown

Admission date: ____/____/_____ Discharge date: ____/____/_____

If multiple admissions, 2nd ICU admission date: ____/____/_____ 2nd ICU discharge date: ____/____/_____

If more than 2 ICU admissions, please provide dates in the comments section (Q.66)

b. Supplemental oxygen ☐ Yes ☐ No ☐ Unknown

Date started: ____/____/_____ Date stopped ____/____/_____

c. Ventilatory support ☐ Yes ☐ No ☐ Unknown

Check all that apply:	☐ Intubation	Date started: ____/____/_____	Date stopped: ____/____/_____
	☐ ECMO	Date started: ____/____/_____	Date stopped: ____/____/_____
	☐ CPAP	Date started: ____/____/_____	Date stopped: ____/____/_____
	☐ BiPAP	Date started: ____/____/_____	Date stopped: ____/____/_____

d. Vasopressor medications (e.g. dopamine, epinephrine) ☐ Yes ☐ No ☐ Unknown
Date started: ____/____/_____ Date stopped ____/____/_____

e. Dialysis (Acute) ☐ Yes ☐ No ☐ Unknown
Date started: ____/____/_____ Date stopped ____/____/_____

f. Resuscitation, CPR	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
g. Acute respiratory distress syndrome (ARDS)	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
h. Disseminated intravascular coagulopathy (DIC)	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
i. Hemophagocytic syndrome	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
j. Bronchiolitis	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
k. Pneumonia	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
l. Stroke (Acute)	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
m. Sepsis	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
n. Shock	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
Type: ☐ hypovolemic ☐ cardiogenic ☐ septic ☐ toxic				
o. Acute myocarditis	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
p. Acute myocardial dysfunction	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
q. Acute myocardial infarction	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
r. Seizures	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
s. Reye's syndrome	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
t. Acute encephalitis / encephalopathy	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
u. Guillain-Barre syndrome	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
v. Rhabdomyolysis	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
w. Acute liver impairment	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
x. Acute renal failure	☐ Yes, date started:___/___/_____	stopped: ___/___/_____	☐ No	☐ Unknown
y. Other, specify: _____	☐ Yes, date started:___/___/_____	stopped: ___/___/_____		
z. Other, specify: _____	☐ Yes, date started:___/___/_____	stopped: ___/___/_____		

XII. Outcomes

57. Did the patient die during this illness? ☐ Yes, date ____/____/_____ ☐ No (skip to Q.62) ☐ Unknown (skip to Q.62)

58. What was the location of death? ☐ Home ☐ Hospital ☐ ER ☐ Hospice ☐ Other, specify_____

59. Did the patient have a DNR (do not resuscitate) order? ☐ Yes ☐ No ☐ Unknown

60. Was an autopsy performed? ☐ Yes (please attach a copy of the autopsy form to this report if available) ☐ No ☐ Unknown

61. What were the causes of death (immediate and underlying) in order of appearance on the death certificate or medical record?

1.	4.	7.
2.	5.	8.
3.	6.	9.

62. Has the patient been discharged from the hospital? ☐ Yes, date ____/_____/_____ ☐ No ☐ Unknown

63. If yes, please indicate to where: ☐ Home ☐ Other hospital ☐ Hospice ☐ Rehabilitation Facility
☐ Other long-term care facility ☐ Other, specify: _____ ☐ Unknown

63. If no, please indicate status: ☐ Hospitalized on ward ☐ Hospitalized in ICU ☐ Died

64. If patient was pregnant, please indicate pregnancy status at discharge or final update:
☐ Still pregnant ☐ Uncomplicated labor/delivery ☐ Complicated labor/delivery Describe _____ ☐ Fetal loss Date ____/____/_____

64. If pregnancy resulted in delivery, please indicate neonatal outcome: Birth date: ____/_____/_____
☐ Healthy newborn ☐ Ill newborn, describe: _____ ☐ Newborn died: Date ____/____/_____ ☐ Unknown

65. Additional notes regarding discharge:

XIII. Additional Comments

66. Additional Comments: