Instructions for Completing *Influenza-Associated Hospitalization, Outpatient Visits or Death Medical Record Abstraction Form*

Instructions for recording answers:

A. **Unless there is a specific negative mention** of a condition or item, i.e., "No asthma noted", then questions should be answered "Not indicated in record".
B. Complete a separate abstraction form for each healthcare setting contact a patient might have had, i.e., outpatient visit and then subsequent hospitalization or transfer between two hospitals; then send collated copies to CDC/AIP for combining into a single record during data entry. The reviewer should feel free to annotate the forms if it appears that there is conflicting information, i.e., race recorded differently, and the quality of the data sources appears unequal.
C. Abbreviations are ok; however, please try and use standard ones, i.e., "UNK" for unknown.
D. Please enter all four digits for Year when recording a date.

Instructions for data transfer:

A. Keep the **original** abstraction forms at your health department.
B. Prior to making a copy of the form to send to CDC/AIP, **redact (blacken out)** the Patient's Name (Q#7), DOB (Q#8), Street Address (Q#15), and Phone Numbers (Q#15d-f); and the identifying information for the Guardian/Next of Kin (Q#16-18f).

#	Date Updated	What Appears on Form	Description/Instructions
INTRODUCTION			****COMPLETE FOR ALL PATIENTS****
1		Study ID	Follow the convention of each case as XX-001 for case #1 from state XX, where XX is the official state abbreviation Each associated control will then be listed after the decimal point; e.g., AK-001 is the first case; AK-001.1 and .2 are the outpatient controls; .3 through .5 are the hospitalized controls
2		Patient status	Check the appropriate box for the patient: Case (i.e., death); Outpatient control; Hospitalized control
3		Date completed	Date medical record was reviewed (MM/DD/YYYY)
4		Name of reviewer	Print the first and last name of person who reviewed record
5		Specimen collection date	Date specimen that FIRST tested positive for pH1N1 was collected (MM/DD/YYYY); this should be the date (+/- 14 days) by which cases and controls were matched This must be between April 15, 2009 and December 31, 2009 **For hospitalized controls, specimen collection date must be within 3 days of hospital admission or during hospital stay**
6		Reviewer phone number	Print 10-digit phone # of person who reviewed record
BASIC DEMOGRAPHIC DATA			****COMPLETE FOR ALL PATIENTS****
7		Patient name	Name of the patient (last, first, middle)
8		DOB	Date of birth of the patient (MM/DD/YYYY)
9		Age	Enter age of patient at the time of the visit; check box for years or months as appropriate If OVER 2 years of age, round to the nearest year If UNDER 2 years of age, please give the age in months
10		Sex	Male or female
11		Is the patient deceased?	Yes or No; all Cases will be deceased by definition, however there may be some indication in the record that a potential

			control is currently deceased and this information will be useful for the interview portion of data collection
11a		If Yes, date of death	Date of death (MM/DD/YYYY) **For Cases, this must be between April 15, 2009 and January 31, 2010, or December 31, 2009 if death was out of hospital**
12		Ethnicity	Indicate ethnicity, if known
13		Race	Race as indicated in the record, choose ALL that apply
14		Was the patient living in an institution?	At the time of the time of the visit
14a		If yes, specify	Specify type, LTCF, correctional, etc.
15		Address	At the time of the time of the visit ; enter in street name
15a		City	Enter in city
15b		State	Enter in state
15c		ZIP	Enter in zipcode
15d		Home phone #	Enter in home phone #
15e		Cell phone #	Enter in cell phone #
15f		Work phone #	Enter in work phone #
16		Next of Kin or Guardian Name	If patient is deceased or minor, enter name for Next of Kin or Guardian as present in the record at the time of the visit
17		Relationship of person above to patient	Enter in relationship of guardian or proxy to patient
18		Address	Enter in street name
18a		City	Enter in city
18b		State	Enter in state
18c		ZIP	Enter in zipcode
18d		Home phone #	Enter in home phone #
18e		Cell phone #	Enter in cell phone #
18f		Work phone #	Enter in work phone #
19		Health insurance status	Check boxes for all that apply
ILLNESS ONSET AND SYMPTOMS			****COMPLETE FOR ALL PATIENTS****
20		Illness onset date	Date that patient recalled FIRST symptom, regardless of how minor. Calculate exact date if possible, i.e., if patient presented on Jan 15, 2009 and said coughing began 2 days ago, write 01/13/2009. If no onset is listed, write the date of the first visit.
20a		Comments	Also write down the exact words to describe onset, i.e., “a few days ago…” or “last week sometime….”
21		Date patient first sought care	Healthcare provider defined as any CHA/P, MD, PA, NP, DO, naturopath, traditional healer, school nurse, etc.
22		Type of facility where patient first sought care	Check facility type; if option not listed, write in for Other, e.g., nursing home
23		Name of facility	List facility name if known; write Unknown if no specific facility name can be recalled, i.e., “went to an urgent care”
23a		City/town of facility	List facility city if known; write Unknown if no specific facility or city can be recalled
23b		ZIP	List facility zip if known; write Unknown if no specific facility or city can be recalled
24		Symptoms reported at the time of first medical encounter	Symptoms that were reported on the date listed in Q24 above. If current visit is NOT the first medical encounter and no information about that encounter is available, list

			symptoms for the first visit for which information is available. Specify highest recorded temp if known and date Fever defined as ≥100F (≥ 37.8C)
PRE-EXISTING CONDITIONS			****COMPLETE FOR ALL PATIENTS****
25		Asthma	Yes, No, or Not indicated Asthma includes Reactive Airway Disease
26		Other chronic lung disease	Yes, No, or Not indicated Chronic lung disease includes but is not limited to: • Asbestosis • Coccidioidomycosis • COPD or emphysema • Cystic fibrosis • Lymphangioleiomyomatosis (LAM) • Pleural effusion • Primary ciliary dyskinesia • Pulmonary fibrosis • Sarcoidosis • Silicosis • Active tuberculosis
26a		If yes, was the patient already receiving in-home oxygen therapy	Yes, No or Not indicated
27		Chronic cardiovascular disease	Yes, No, or Not indicated Chronic cardiovascular disease includes but is not limited to: • Aneurysm • Angina • Atherosclerosis/arteriosclerosis • Cardiac arrhythmia (chronic only) • Presence of pacemaker • Cardiac tamponade • Carotid endarteritis • Congenital heart disease • Congestive heart failure (CHF) • Cor pulmonale • Coronary artery disease (CAD) • Endocarditis • Myocardial infarction • Myocarditis • Pericardial effusion • Pericarditis • Pulmonary embolism • Pulmonary hypertension • Status post coronary artery bypass graft or stent • Valvular disease ***Excludes*** hypertension
28		Diabetes	Yes, No, or Not indicated
29		Other chronic metabolic disease	Yes, No, or Not indicated Other chronic metabolic disease includes but is not limited to: • Amyloidosis • Fabry disease

			• Galactosemia • Gaucher disease • Glycogen storage disease • Hemochromatosis • Hereditary fructose intolerance • Homocystinuria • Maple syrup urine disease • Niemann-Pick disease • Phenylketonuria (PKU) • Tay-Sachs disease • Impaired fasting glucose • Metabolic syndrome
30		Cancer dx in last 12 months	Yes, No, or Not indicated Count back 12 months from the date listed in Q#21 A new cancer diagnosis includes but is not limited to: • Cancer (Lung, colon, breast, cervix, prostate, liver, pancreas, etc.) • Leukemia • Lymphoma • Melanoma • Multiple myeloma ***Excludes*** localized and non-melanoma skin cancer
31		Renal disease	Yes, No, or Not indicated Renal disease includes but is not limited to: • Alport syndrome • Chronic renal insufficiency (CRI) • End stage renal disease (ESRD) • Glomerulonephritis • Glomerulosclerosis • Goodpasture syndrome • IgA nephropathy • Interstitial nephritis • Medullary sponge kidney • Minimal-change disease • Nephrosclerosis • Nephrotic syndrome • Patient on dialysis • Polycystic kidney disease • Pyelonephritis • Renal artery stenosis
32		Liver disorder	Yes, No, or Not indicated Liver disorder includes but is not limited to: • Alcoholic hepatitis • Cholestasis • Cirrhosis (alcoholic or viral) • Drug induced hepatitis • Hepatic encephalopathy • Primary sclerosing cholangitis • Viral hepatitis • Autoimmune liver disease
33		Neurologic disease	Yes, No, or Not indicated

			Neurologic disease includes but is not limited to: • Alzheimer disease • Amyotrophic lateral sclerosis • Cerebovascular accident (CVA) or transient ischemic attack (TIA) • Cerebral palsy • Dementia • Developmentally delayed • Guillain-Barre syndrome • Huntington disease • Hydrocephalus • Multiple sclerosis • Myasthenia gravis • Neuromuscular disease • Parkinson disease • Schizophrenia • Seizure disorders • Spinal cord dysfunction/injuries
34		Blood disorder	Yes, No, or Not indicated Blood disorder includes but is not limited to: • Aplastic Anemia • Autoimmune Hemolytic Anemia • Glucose 6 Phosphate Dehydrogenase deficiency • Hemochromatosis • Hemoglobin C, S-C, or E Disease • Iron deficiency • Sickle cell disease (not trait only) • Thalessemia
35		Under 19 yrs old and on aspirin therapy	If, <19 yrs old, was the patient on long term aspirin therapy Yes, No, or Not indicated or Not applicable
36		Immunosuppressive condition	Yes, No, or Not indicated Immunosuppressive condition includes but is not limited to: • Chemotherapy • Chronic corticosteroid therapy • HIV/AIDS (regardless of antiretroviral treatment) • Hypogammaglobulinemia • Immunosuppressant therapy • Organ transplant recipient
37		Alcohol abuse	Did patient have alcohol abuse, or negative consequences for drinking alcohol: Yes, No, or Not Indicated If unclear whether notes indicate “abuse” or consequences”, write the exact wording found related to alcohol in the Other section immediately following this question
38		Other	Yes, No, or Not indicated If Yes please list Examples include hypertension, substance abuse disorder, etc. o Autoimmune conditions o Addison’s disease o CREST syndrome o Crohn’s disease o Dermatomyositis

			○ Grave's disease ○ Hashimoto's thyroiditis ○ Lupus ○ Rheumatoid arthritis ○ Sjogren syndrome ○ Psoriatic arthritis ○ Ulcerative colitis ○ Dwarfism ○ Prematurity ○ Other congenital, e.g., Down syndrome
39		Height	Specify in inches or centimeters at the time of the first visit
40		Weight	Specify if pounds or kilograms at the time of the first visit
41		If H or W not available, does record indicate if patient is obese or morbidly obese	Check box that applies; these descriptors might be found in first history and physical or anywhere in ongoing progress notes when the patient's condition is described
41a		Please list exact words describing body habitus if available:	List words used to describe the patient's body condition/habitus (i.e., normally proportioned, well-nourished, etc.)
		ONLY FEMALES	******COMPLETE ONLY FOR *FEMALE* PATIENTS****
42		Was patient pregnant	At the time of the first positive H1N1 test, was the patient pregnant? Yes or No or Not indicated
42a		If Yes, gestational age in weeks or trimester	Indicate whether weeks or trimester
42b		Delivery date if applicable	If patient recently gave birth, enter in delivery date
43		If pregnant and hospitalized, pregnancy status at the time of discharge	Check box that applies: still pregnant or not, or not indicated
44		If pregnant and hospitalized, pregnancy outcome at the time of discharge	Check box that applies: miscarriage/stillborn, healthy newborn, ill newborn, newborn died, not indicated, not hospitalized
45		Was patient post-partum $\leq$2 weeks	Yes or No or Not indicated
46		Was patient post-partum $\leq$ 6 and >2 weeks	Yes or No or Not indicated
		OUTPATIENT RECORDS	****COMPLETE ONLY FOR *OUTPATIENT* CONTROLS, AND CASES if applicable****
47		Outpatient facility name	Name of the facility
48		Date of initial visit	MM/DD/YYY
49		Did the patient have pneumonia	As recorded by the provider in the record, could be either clinical or radiologic diagnosis
50		If <5 yo, was patient breastfeeding	Yes or No or Not indicated or Not applicable
		HOSPITAL ADMISSION	****COMPLETE ONLY FOR *HOSPITAL* CONTROLS, AND CASES if applicable****
51		Hospital name	Name of facility
51a		Hospital location	City/location of hospital
52		Admission date	Date and time that patient was admitted according to hospital administration records
52a		Admission time	Time or admission, indicate AM or PM

53		Discharge date	This must be at least 24 hours after Admission date
53a		Discharge time	Time or admission, indicate AM or PM
54		Was patient transferred from another facility	Yes or No or Not indicated If transferred, obtain records from previous facility and fill out a second form
55		Hospital name	
55a		Hospital location	
55b		If Yes, date of transfer	
56		Was patient transferred to another facility	Yes or No or Not indicated
57		Hospital name	
57a		Hospital location	
57b		If Yes, date of transfer	
58		If <5 yo, was patient breastfeeding	Yes or No or Not indicated or Not applicable
59		Was patient admitted to ICU	Yes or No or Not indicated
59a		If yes, specify type of critical care unit	Select specific unit: ICU, PCU, CCU, other
60		Did patient require new initiation of oxygen therapy	Yes or No or Not indicated Could be via nasal canula, mask or via intubation
61		Did patient require mechanical ventilation	Yes or No or Not indicated
61a		If Yes, specify type	ECMO, Oscillator, Ventilator, other
62		Did patient have pneumonia	Yes or No or Not indicated
62a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with pneumonia or whether pneumonia developed during the hospital stay
63		Did patient have ARDS	Yes or No or Not indicated ARDS (Acute Respiratory Distress Syndrome) If present, the clinician will likely have indicated in a progress/discharge note
63a		If yes, prior to admission, on admission, or during hospitalization	If Yes, distinguish between whether the patient had a history of ARDS, presented with ARDS or whether ARDS developed during the hospital stay
64		Did patient have sepsis	Yes or No or Not indicated
64a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with sepsis or whether sepsis developed during the hospital stay
65		Did patient have a myocardial infarct	Yes or No or Not indicated
65a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with a myocardial infarct or whether an MI developed during the hospital stay
66		Did patient have liver failure	Yes or No or Not indicated
66a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with liver failure or whether liver failure developed during the hospital stay
67		Did patient have encephalitis/encephalopathy	Yes or No or Not indicated
67a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with encephalitis/encephalopathy or whether

			encephalitis/encephalopathy developed during the hospital stay
68		Did patient have a pulmonary embolus	Yes or No or Not indicated
68a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with a pulmonary embolus or whether a PE developed during the hospital stay
69		Did patient have renal failure	Yes or No or Not indicated If present, the clinician will likely have indicated in a progress/discharge note
69a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented in renal failure or whether renal failure developed during the hospital stay
70		Did patient require dialysis	Yes or No or Not indicated
70a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented requiring dialysis or whether dialysis was newly initiated during the hospital stay
71		Did patient have DIC	Yes or No or Not indicated
71a		If yes, on admission or during hospitalization	If Yes, distinguish between whether the patient presented with DIC (disseminated intravascular coagulation) or whether DIC developed during the hospital stay
72		Hospital outcome	Died, if Yes, make sure you enter Date of Death in on Q# 11a Discharged to hospice/nursing home/LTCF Discharged to home Other, please specify
73		If patient died, was autopsy performed	Yes or No or Not indicated If yes, obtain autopsy report and attach to review form
		LABORATORY TESTING	****COMPLETE FOR ALL PATIENTS**** ***Obtain information from the actual lab forms and not from clinician progress notes***
74		Rapid EIA test done	Yes or No or Not indicated
74a		Results	Check box for result: Flu A, A/B, B, Other, or Negative If Other, please specify, e.g., indeterminate
75		Fluorescent antibody done (IFA or DFA)	Yes or No or Not indicated
75a		Results	Check box for result: Flu A, A/B, B, Other, or Negative
76		Was a Flu A 2009 H1N1 PCR done	Yes or No or Not indicated
76a		Flu A 2009 H1N1 PCR result	Positive, negative, Not indicated in record
77		Was a Flu A 2009 H1N1 culture done	Yes or No or Not indicated
77a		Flu A 2009 H1N1 culture result	Positive, negative, Not indicated in record
78		Collection date of first positive specimen	MM/DD/YYYY Date of collection of first positive specimen; this should be the same as the date in Q# 5 on page #1
79		Lab performing first positive test	Name of lab where first positive test, including rapid test, was performed
79a		Lab location	City/location of lab
80		Were specimens collected to test for a bacterial infection	Yes or No or Not indicated Specimens could have been collected at any point during hospitalization
80a		Was there confirmation of a	Did any cultures have growth?

		bacterial; infection?	
80b		If, yes, specify pathogen, site of specimen collection, type of test, and date collected	List any organisms that were confirmed, the site/source of specimen, and the type of test (e.g., culture vs PCR vs quick test), and the date the specimen was collected
		RADIOLOGY	****COMPLETE FOR ALL PATIENTS**** Obtain information from the actual radiology reports and not from clinician progress notes
81		Was there radiographic evidence of the following	Check all that apply If no imaging was performed, check the box for Not done If orders appear to have been written but no official report can be found, check the box for Report Not Available
		MEDICATION/TREATMENT	****COMPLETE FOR ALL PATIENTS****
82		Did the patient receive antivirals	Yes or No or Not indicated Check Yes if the patient received antivirals during hospitalization OR if the patient in an ER or outpatient setting was given a prescription for antivirals.
82a		Comments	Enter in additional comments here if there is an indication that prescribed medications were never filled, or orders were discontinued etc.
82b		Oseltamivir (Tamiflu) If Yes, start date	Yes or No or Not indicated MM/DD/YYYY
82c		Zanamivir (Relenza) If Yes, start date	Yes or No or Not indicated MM/DD/YYYY
82d		Peramivir If Yes, start date	Yes or No or Not indicated MM/DD/YYYY
82e		Amantadine (Symmetrel) If Yes, start date	Yes or No or Not indicated MM/DD/YYYY
82f		Rimantadine (Flumadine) If Yes, start date	Yes or No or Not indicated MM/DD/YYYY
83		Did the patient receive steroids	Yes or No or Not indicated
83a		Route of administration	Check all that apply, PO, IV, inhaler, nebulizer
84		Did patient receive antibiotics	Yes or No or Not indicated If Yes, specify date and name of antibiotics that were either administered or prescribed
85		Did patient require vasopressor medications during hospital stay (i.e., dopamine, epinephrine)	Yes or No or Not indicated Meds include dopamine, epinephrine, norepinephrin, and phenylephrine (IV form)
		VACCINATIONS	****COMPLETE FOR ALL PATIENTS****
86		Since 2008, did patient receive an influenza vaccine (seasonal or H1N1)	Yes or No or Not indicated This question is intended to capture those persons who had a flu vax but cannot recall specifically which one
87		Did patient receive seasonal 2008-09 flu vaccine	Yes or No or Not indicated
87a		If Yes, date of doses:	MM/DD/YYYY (2 doses possible) Dates should be from starting in Sept 2008 through June 2009
88		Did patient receive seasonal 2009-10 flu vaccine	Yes or No or Not indicated
88a		If Yes, date of doses:	MM/DD/YYYY (2 doses possible) Dates should be from starting in Oct/Nov 2009 through June

			2010
89		Did patient receive an H1N1 flu vaccine	Yes or No or Not indicated
89a		If Yes, date of doses:	MM/DD/YYYY (2 doses possible) Dates should be from starting in Oct/Nov 2009 through June 2010
90		Did patient ever receive a 7-valent conjugate (Prevnar vaccine)	Yes or No or Not indicated This should only be a Yes for kids <5 yo
90a		If Yes, how many doses	Space for ##, or Not indicated
90b		If Yes, date of last dose	MM/DD/YYYY, or Not indicated
91		Did the patient ever receive a 23-valent polysaccharide (Pneumovax) vaccine	Yes or No or Not indicated This should only be a Yes for adults >60 yo OR persons with certain underlying conditions
91a		If Yes, date of last dose	MM/DD/YYYY, or Not indicated
SOURCE OF DATA			****COMPLETE FOR ALL PATIENTS****
92		Please check all that apply	Medical record CDC/State investigation form Laboratory list Reportable diseases database Autopsy report Vaccine tracking database