

NAME (Last, First)			Hospital Record No.		
Address (Street and No.)		City	County	Zip	Phone
Reporting Physician/Nurse/Hospital/Clinic/Lab			Address		Phone

-----DETACH HERE and transmit only lower portion if sent to CDC-----

Pertussis Surveillance Worksheet

CDC NETSS id		County		State		Zip	
Birth Date Month Day Year		Age Unk = 999		Age Type 0 = 0-120 years    3 = 0-28 days 1 = 0-11 months    9 = Age unknown 2 = 0-52 weeks		Race N = Native Amer./Alaskan Native    W = White A = Asian/Pacific Islander    O = Other B = African American    U = Unknown	
Event Date Month Day Year		Event Type 1 = Onset Date    4 = Reported to County 2 = Diagnosis Date    5 = Reported to State of 3 = Lab Test Done    6 = Unknown MMWR Report Date		Outbreak Associated Unk = 999		Reported Month Day Year	
				Imported 1 = Indigenous 2 = International 3 = Out of State 9 = Unknown		Report Status 1 = Confirmed 2 = Probable 3 = Suspect 9 = Unknown	

CLINICAL DATA	Any Cough? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Cough Onset Month Day Year		Paroxysmal Cough? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Whoop? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Chest X-ray for Pneumonia <input type="checkbox"/> P = Positive <input type="checkbox"/> N = Negative <input type="checkbox"/> X = Not Done <input type="checkbox"/> U = Unknown		Seizures Due to Pertussis <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown	
	Posttussive Vomiting? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Apnea? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Final Interview Date Month Day Year				Acute Encephalopathy Due to Pertussis <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown			
	Cough at Final Interview? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Duration of Cough at Final Interview Days				Hospitalized? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Days Hospitalized 0 - 998 999 - Unknown		Died? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown	

TREATMENT	Were Antibiotics Given? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		First Antibiotic Received 1 = Erythromycin (incl. pediazole, ilosone)    6 = Other 2 = Cotrimoxazole (bactrim/septria)    9 = Unknown 3 = Clarithromycin/azithromycin 4 = Tetracycline/Doxycycline 5 = Amoxicillin/Penicillin/ Ampicillin/Augmentin/Ceclor/Cefixime		Date Started First Antibiotic Month Day Year		Days First Antibiotic Actually Taken 0 - 98 99 - Unknown		Was Laboratory Testing for Pertussis Done? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Result Date Specimen Taken Month Day Year	
	Second Antibiotic Received <input type="checkbox"/> See Choices for First Antibiotic Given		Date Started Second Antibiotic Month Day Year		Days Second Antibiotic Actually Taken 0 - 98 99 - Unknown				Culture <input type="checkbox"/>		DFA <input type="checkbox"/>	
									Serology 1 <input type="checkbox"/>		Serology 2 <input type="checkbox"/>	

RESULT CODES  
P = Positive    E = Pending    X = Not Done    U = Unknown  
N = Negative    I = Indeterminate    S = Parapertussis

VACCINE HISTORY	Vaccinated? (Received any doses of diphtheria, tetanus, and/or pertussis -containing vaccines) <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Date First Reported to a Health Department Month Day Year		Date Case Investigation Started Month Day Year	
	Vaccination Date Month Day Year		Vaccine Type*		Vaccine Manuf.*	
	Lot Number*		Outbreak Related? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown		Epi-Linked? <input type="checkbox"/> Y = Yes <input type="checkbox"/> N = No <input type="checkbox"/> U = Unknown	
	Vaccine Type Codes W = DTP Whole Cell A = DTaP H = DTaP-Hib D = DT or Td T = DTP -Hib P = Pertussis Only O = Other U = Unknown		Vaccine Manufacturer Codes C = Connaught L = Lederle S = SmithKline Beecham M = Mass. Health Department I = Mich. Health Department N = North American Vaccine O = Other U = Unknown		Outbreak Name (Name of outbreak this case is associated with)	
	Date of Last Pertussis-Containing Vaccine Prior to Illness Onset Month Day Year		Number of Doses of Pertussis-Containing Vaccine Prior to Illness Onset 0 - 6 9 = Unknown		Transmission Setting (Where did this case acquire pertussis?) <input type="checkbox"/> 1 = Day Care    6 = Hosp. Outpatient Clinic    11 = Military 2 = School    7 = Home    12 = Correctional Facility 3 = Doctor's Office    8 = Work    13 = Church 4 = Hospital Ward    9 = Unknown    14 = International Travel 5 = Hospital ER    10 = College    15 = Other	

\*Record for each dose (unlikely to be available if patient born before 1989)



**PERTUSSIS DEATH WORKSHEET**

NETSS ID:           STATE ID:

Patients Initials:

Sex:  Male  Female

Date of Birth:

Race\*:  Ethnicity\*:

Date of Cough Onset:

Reporting State:

Date of Death:

Report Completed By:  
Telephone #:

Where did the patient die? ? Home ? Hospital ? En route to hospital ? Other (Specify) \_\_\_\_\_

Was an autopsy performed?  Yes  No  Unknown

**CHECKLIST OF DOCUMENTS TO BE SENT TO CDC**

Send to: The Pertussis Surveillance Coordinator, MS E61, BVPD Branch, Epidemiology and Surveillance Division, National Immunization Program, Centers for Disease Control, 1600 Clifton Road NE, Atlanta, GA 30333. Fax # 404-639-8616

No.	Document**	Yes/No
1	<i>Pertussis case investigation form</i>	
2	<i>Copy of all patient's vaccination records</i>	
3	<i>Admission history and physical (H&amp;P)</i>	
4	<i>Discharge summary</i>	
5	<i>All medical records, including Emergency Dept notes and lab results***</i>	
6	<i>Death certificate</i>	
7	<i>Autopsy report</i>	

**PATIENT'S VACCINATION INFORMATION**

DOSE	Antigen (Circle one)	DATE GIVEN	BRAND/ MANUFACTURER	LOT NUMBER	DATA SOURCE †
<i>First</i>	DTP/ DTaP/ DT				
<i>Second</i>	DTP/ DTaP/ DT				
<i>Third</i>	DTP/ DTaP/ DT				
<i>Fourth</i>	DTP/ DTaP/ DT				
<i>Fifth</i>	DTP/ DTaP/ DT				

\* Please use the same codes as in the Pertussis Case Report Worksheet

\*\*Please obtain information from each hospital

\*\*\* Medical chart/record also includes inpatient progress notes, X-ray reports, echocardiography reports, Doctor's Office notes, vaccination records, lab reports

† Data Source: Provider Record=1; Parent vaccination card=2; Other baby record (e.g. baby book)=3; Parent's History (no record)=4; Other source=5 (please specify).



**OTHER STUDIES**

	Yes/No	Date done	Result
Chest X-ray			
Echocardiography			

Was pulmonary hypertension a diagnosis in this patient?  Yes  No  Unknown

Was the patient treated with antibiotics?  Yes  No  Unknown

*If Yes, please list all the antibiotics and the dates when given.*

Name of Antibiotic Given	Date Started	Date Ended

**OTHER MEDICAL AND FAMILY INFORMATION**

What is the birth mother's date of birth? [ ] [ ] [ ]

At the time of the patient's birth, did the mother have an immune-suppressed or a chronic underlying medical condition?

Yes  No  Unknown

*If yes, what is the name of the condition?* [ ]

If the patient was <1 year old, what was the gestational age of the infant at the time of delivery?  
[ ] Weeks

What was the weight of the infant at birth? [ ] lb [ ] oz or [ ] kg [ ] gm

Did the patient have underlying or previous medical conditions?  Yes  No  Unknown

*If yes, please give details.*

In the table below, list everyone who lives in the household, their date of birth, age, sex, the number of doses of pertussis containing vaccine received, and date of the last pertussis vaccine dose, smoking habits at home, and the presence of a cough illness during the 3-week period prior to the cough onset date in the patient. Please indicate if pertussis was the diagnosis for the cough illness, and if so, how pertussis was confirmed.

No.	Relationship to Patient	Date of Birth	Age	Sex	No. doses DTP/DTaP/DT	Date of last dose	Smoking habits at home		Cough illness in family member during 3-week period prior to cough onset date in case-patient			
							Current smoker (Yes/No)	Avg. no. of cigarettes smoked daily	Cough (Yes/No)	Cough Onset Date	Pertussis diagnosis (Yes/No)	Confirmation method (Culture/ PCR / DFA/None)
1												
2												
3												
4												
5												
6												
7												
8												
9												

During the 3-week period prior to the cough onset, was the patient exposed to anyone **outside of the household** who was known to have a cough illness?  Yes  No  Unknown

If yes, list all persons who had a cough illness and who may have exposed the patient, with the dates of cough onset in the table below.

No.	Relationship to Patient	Date of Birth	Age	Sex	No. doses DTP DTaP/DT vaccine *	Date of last Dose	Cough onset date	Date cough stopped	Pertussis Diagnosis	Confirmation Method (Culture/ PCR/DFA/ None)
1										
2										
3										
4										
5										

\* Indicate type of vaccine if available

## Instructions for Completing the Pertussis Surveillance Worksheet

### General

- If the month and year for any date is known but the exact day is unknown, enter a 15 for the day (i.e. the middle of the month).
- While “unknown” is an option for many questions, please make every effort to obtain the appropriate information.
- If information is obtained after the record has been submitted to the Centers for Disease Control and Prevention (CDC), please update the NETSS record with the new information and resend the record during the next scheduled transmission.
- **If** copies of the paper form are sent to CDC, either fold back the information above the dotted line or cut it off **after** photocopying and **before** sending the rest of the information to the CDC to preserve confidentiality.

**Zip Code: Requested (but not required)** by the National Immunization Program for vaccine-preventable diseases. Enter a 5-digit zip code.

**Birth Date:** If known, enter the birth date. If unknown or before the year 1900, leave blank and enter the age and age type.

**Age and Age Type:** If birth date unknown and age known, enter age of patient at cough onset in number of years, months, weeks, or days as indicated by the age type codes.

**Event Date and Event Type:** Enter the earliest known date associated with the incidence of the disease, preferably cough onset. The event type describes the date entered in event date. The event types are listed in order of preference.

**Outbreak Associated:** Enter 1 if the case is outbreak associated and the state does not assign numerical values to outbreaks; if the state assigns numerical values to outbreaks, enter the assigned value; if the case is known to be not associated with an outbreak, enter 0. If unknown, enter 999.

**Reported:** This field is used in various ways, such as to enter the date reported to the state, a local or other health department. Check with the State Epidemiologist to determine what guidelines apply in your state.

### Clinical Data

**Paroxysmal Cough:** Sudden, uncontrollable bursts or spells of coughing where one cough follows the next without a break for breath.

**Whoop:** High-pitched noise heard on breathing in after paroxysms of cough.

**Post-tussive Vomiting:** Vomiting that follows a paroxysm of cough.

**Apnea:** Prolonged failure to take a breath which may occur either after a coughing spasm, or without prior coughing in an infant.

**Final Interview Date:** Date of the last interview conducted with the patient or care provider to obtain case information.

**Duration of Cough at Final Interview:** The total number of days the patient has coughed by the time of the final interview. If cough duration is < 14 days at final interview when the case is reported, it is important to recontact the patient to establish whether the patient did cough for at least 14 days. If unknown, leave blank.

### **Complications**

**Acute Encephalopathy Due to Pertussis:** Acute illness of the brain manifesting as decreased level of consciousness (excluding post due to pertussis ictal state) and reduced level of nervous system functioning. Seizures may or may not occur. Such patients are almost always hospitalized, and have undergone extensive evaluation. This must be verified by a physician; ***please submit the hospital discharge summary.***

**Died:** If patient had pertussis at the time of death, even if the immediate or underlying cause of death was not pertussis, ***please submit the hospital discharge summary, death certificate, and autopsy report (if completed).***

### **Laboratory**

- a) The “gold” standard for diagnosis of pertussis is a culture.
- b) Direct fluorescent antibody testing (DFA) is of limited specificity and should not be used to confirm cases for national disease reporting and surveillance.
- c) Serologic tests have not been standardized for diagnosis of pertussis and should not be used to confirm cases for national disease reporting and surveillance. A positive serology result may be based on either single sample or combined result from acute and convalescent samples.
- c) Polymerase chain reaction (PCR) of nasopharyngeal swabs or aspirates is only available in certain laboratories, and direct comparison and validation with culture are needed before PCR can be used for laboratory confirmation.

### **Vaccine History**

**Vaccinated:** Administration of ½ doses of vaccine or multiple small doses is not recommended and should not be considered as valid doses in assessing vaccination.

#### **Type/Manufacturer/Brand Name:**

<u>Type</u>	<u>Manufacturer</u>	<u>Brand/Trade Name</u>
DTP Whole Cell	Connaught/Lederle	Generic/Generic
DTaP	Connaught/Lederle/SmithKline	Tripedia®/ACEL-IMMUNE®/Infanrix™
DTaP-Hib	Connaught	TriHibit™
DT or Td	Massachusetts Health Department	Generic
DTP-Hib	Connaught/Lederle	DTP/ACTHib®/Tetramune®
Pertussis Only (whole cell)	Michigan Biologic Products Institute	Generic

**Number of Doses of Pertussis-Containing Vaccine Prior to Illness Onset:** Number of doses of pertussis-containing vaccine. Count doses of any of the following: DTP, DTaP, DTP-Hib, DT, P only.

### **Epidemiologic Information**

**Date First Reported to a Health Department:** Date reported is considered the earliest date the case was initially reported to a health department, either local, district, or state level health department.

**Outbreak Related:** Outbreak should be defined by each health department as epidemiologically indicated. For example, 2 cases occurring in 1 household may be considered an outbreak.

**Epi-Linked:** A case that has had close contact with a culture-confirmed case, with cough onset in the period from 30 days before to 30 days after cough onset in the culture-confirmed case, where the timing of the contact was compatible with the incubation period of pertussis (6-20 days).

**Setting (Outside Household) of Further Documented Spread from This Case:** Indicate setting outside household in which secondary transmission of pertussis from the case occurred.

**Number of Contacts in Any Setting Recommended Antibiotics:** Enter the number of contacts recommended to receive chemoprophylaxis.