



ESP CASE DETECTION ALGORITHM

Pertussis

Document Version 1.21

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Modification History

Version	Date	Modification	By
1.21	10/11/2017	Added ESP Logo and MDPH branding	DPM
1.2	7/11/2017	Added ICD-10 diagnostic codes and XXXX	DPM
1.1	7/5/2017	Transferred to new algorithm template. Note: this algorithm is not currently in use and will be updated with ICD-10 codes in the future.	DPM
1.0	4/30/2010	Initial draft.	



1. Overview

The purpose of this document is to describe the criteria used to identify pertussis in MDPHnet and RiskScope.

2. Criteria used to identify cases using ESP data

Any ONE of the following:

- ICD=9 or ICD-10 diagnostic code for pertussis OR lab order for a pertussis culture, PCR, or serology AND select antibiotic prescription within 7-day window
- Positive culture or PCR for pertussis

3. Specifications for reporting diseases/conditions to the Massachusetts Department of Public Health (MDPH)

Not applicable at this time. Case reporting not active for pertussis via ESP.

4. Codes, laboratory tests, and medications used to identify criteria listed in Sections 2 and 3.

I. DIAGNOSIS CODES USED TO IDENTIFY PERTUSSIS

ICD-9	484.3	Pneumonia in whooping cough
	033	Whooping cough
	033.0	Whooping cough due to Bordetella pertussis (P. pertussis)
	0.33.1	Whooping cough due to Bordetella parapertussis (B. parapertussis)
	033.8	Whooping cough due to other specified organism
	033.9	Whooping cough, unspecified organism
ICD-10	A37.10	WHOOPI COUGH BORDETELLA PARAPERTUSS W/O PNEUMONIA
	A37.00	WHOOPI COUGH D/T BORDETELLA PERTUSS W/O PNEUMONIA
	A37.01	WHOOPI COUGH D/T BORDETELLA PERTUSSIS W/PNEUMONIA
	A37.11	WHOOPI COUGH D/T BORDETELLA PARAPRTUSS W/PNEUMONIA
	A37.1	WHOOPI COUGH DUE TO BORDETELLA PARAPERTUSSIS
	A37.0	WHOOPI COUGH DUE TO BORDETELLA PERTUSSIS
	A37.9	Whooping cough, unspecified species
	A37.90	Whooping cough, unspecified species without pneumonia
	A37.91	Whooping cough, unspecified species with pneumonia



II. MEDICATIONS

Antibiotics for pertussis

Erythromycin
Clarithromycin
Azithromycin
Trimethoprim-sulfamethoxazole

III. LAB TESTS

	CPT	Comp	Native test	Positive
Pertussis culture	87081	2743	CULTURE PERTUSSIS	*
	87081	5472	B.PERTUSSIS	*
	87081	951	BORDETELLA PERTUSSIS CUL/STATE	*
Pertussis PCR	87081	2744	PERTUSSIS BY PCR	*
Pertussis serology	86615	6124	PERTUSSIS ELISA SEROLOGY	Positive
	86615	5489	BORDETELLA PERTUSSIS IGG-PT	Positive
	87081	5489	BORDETELLA PERTUSSIS IGG-PT	Positive
	86615	691	PERTUSSIS SEROLOGY	>10
	86615	4148	B. PERTUSSIS IGG	Positive

Culture results are free text or scanned reports from outside labs. Free text positives reported as “Bordetella pertussis found by culture.” Negatives reported as “Negative” or “Bordetella pertussis not found by culture”

IV. CODE MAINTENANCE STRATEGY

Lab mappings at MLCHC, CHA, and Atrius last reviewed **July 2017**