

COCCIDIOIDOMYCOSIS

Includes Pulmonary and Extrapulmonary Disease

Background

This case definition was developed by the Armed Forces Health Surveillance Center (AFHSC) for the purpose of epidemiological surveillance of a condition important to military-associated populations. In the military, coccidioidomycosis is an occupational hazard for those stationed or training in endemic areas and can lead to a significant loss of workdays for those affected.

Clinical Description

Coccidioidomycosis is a respiratory infection caused by *Coccidioides immitis* (or *C. posadasii*), a naturally occurring fungus found in soil and endemic to the southwestern United States and portions of other countries in Central and South America. The infection is mostly asymptomatic; however, in some, the disease manifests as a lower respiratory infection with influenza-like symptoms. Disseminated disease is rare. Because of the infection's non-specific presentation and delayed onset of symptoms, the correct diagnosis and needed treatment may be delayed.¹

Case Definition and Incidence Rules

For surveillance purposes, a case of coccidioidomycosis is defined as:

- *One hospitalization* with any of the defining diagnoses of coccidioidomycosis (see ICD9 and ICD10 code lists below) in the *primary* diagnostic position; or
- *Two outpatient medical encounters, occurring within a period of 14 days*, with any of the defining diagnoses of coccidioidomycosis (see ICD9 and ICD10 code lists below) in the *primary* diagnostic position.
- One record of a reportable medical event of coccidioidomycosis.

Incidence rules:

For individuals who meet the case definition:

- The incidence date is considered the date of the first reportable medical event, hospitalization or outpatient medical encounter that includes a diagnosis of coccidioidomycosis.
- An individual is considered an incident case only *once per lifetime*.

Exclusions:

- None

¹ Armed Forces Health Surveillance Center (AFHSC). Surveillance Snapshot: Coccidioidomycosis diagnoses by location, active component, 2000-2009. *Medical Surveillance Monthly Report (MSMR)*. 2010 Dec; 17(12):13.



Codes

The following ICD9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Coccidioidomycosis (Pulmonary)	B38 (coccidioidomycosis)	--
	B38.0 (acute pulmonary coccidioidomycosis)	114.0 (primary coccidioidomycosis; pulmonary)
	B38.1 (chronic pulmonary coccidioidomycosis)	114.4 (chronic pulmonary coccidioidomycosis)
	B38.2 (pulmonary coccidioidomycosis, unspecified)	114.5 (pulmonary coccidioidomycosis, unspecified)
Coccidioidomycosis (Extrapulmonary)	B38.3 (cutaneous coccidioidomycosis)	114.1 (primary extrapulmonary coccidioidomycosis)
	B38.4 (coccidioidomycosis meningitis)	114.2 (coccidioidal meningitis)
	B38.7 (disseminated coccidioidomycosis)	114.3 (below)
	B38.8 (other forms of coccidioidomycosis)	--
	- B38.81 (prostatic coccidioidomycosis)	114.1 (above)
	- B38.89 (other forms of coccidioidomycosis)	114.3 (other forms of progressive coccidioidomycosis)
	B38.9 (coccidioidomycosis, unspecified)	114.9 (coccidioidomycosis, unspecified)

Development and Revisions

- In March of 2014 the case definition was updated to include ICD10 codes.
- The case definition for coccidioidomycosis was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC requests. The case definition was developed by Medical Surveillance Monthly Report (MSMR) staff for use in a MSMR “snapshot” article for the December 2010 edition.

Case Definition and Incidence Rule Rationale

- The symptoms of coccidioidomycosis are non-specific and health care providers may include the condition in the differential diagnosis for an individual prior to making a definitive diagnosis. As such, the case definition requires two outpatient medical encounters to confirm a true case.
- This case definition requires two outpatient encounters within a period of 14 days to define a case. Based on analyses of the data² and the expert opinion of consulting Infectious Disease specialists, the assumption was made that an individual with presumed or confirmed coccidioidomycosis would likely have a follow-up visit within a period of 14 days of the initial encounter.

² Detailed information on these analyses are available through the Armed Forces Health Surveillance Center; reference Defense Medical Surveillance System (DMSS) data Requests #120298 (Update: Coccidioidomycosis snapshot, Sept 2012) and R120322 (Coccidioidomycosis diagnoses in MHS beneficiaries, 1999-2011).



- The diagnosis is limited to the primary diagnostic position in order to improve the specificity of the case definition.

Code Set Determination and Rationale

- This case definition uses ICD9 and ICD10 codes for both pulmonary and extrapulmonary disease.

Reports

AFHSC reports on coccidioidomycosis in the following reports:

- Monthly: AFHSC Reportable Events Monthly Report. Available on the AFHSC website at: <http://www.afhsc.mil>; see “Reports and Publications”.
- Weekly: DoD Communicable Disease Weekly Report; Summary of Communicable Reportable Events by Service; Available on the AFHSC website at: <http://www.afhsc.mil>; see “Reports and Publications”.

Review

Apr 2014	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.
Feb 2011	Case definition reviewed and adopted by Surveillance Methods and Standards (SMS) working group.
Dec 2010	Case definition developed and reviewed by AFHSC MSMR staff.

Comments

Armed Forces Reportable Events: Coccidioidomycosis is a reportable medical event in the Armed Forces Reportable Events surveillance system under “Other” diseases.

