

Communicable Disease Case Reporting and Investigation Protocol **COCCIDIOIDOMYCOSIS (VALLEY FEVER)**

I. IDENTIFICATION AND DEFINITION OF CASES

A. Clinical Description: Coccidioidomycosis, commonly known as Valley Fever or "cocci," is a fungal disease caused by inhaling spores from *Coccidioides* species. This fungus lives in the soil of semi-arid regions of the world, and is endemic in areas of the southwestern U.S., northern Mexico, and portions of South America. Infection may be asymptomatic, or may produce an acute or chronic disease. Although the disease initially resembles an influenza-like or pneumonia-like febrile illness primarily involving the bronchopulmonary system, dissemination can occur to multiple organ systems.

Clinically compatible presentation is typically characterized by one or more of the following:

- Influenza-like signs and symptoms (e.g., fever, chest pain, cough, myalgia, arthralgia, and headache)
- Pneumonia or other pulmonary lesion, diagnosed by chest radiograph
- Erythema nodosum or erythema multiforme rash
- Involvement of bones, joints, or skin by dissemination
- Meningitis
- Involvement of viscera and lymph nodes

B. Laboratory Criteria:

Confirmatory laboratory evidence, at least one of the following:

- Culture of *Coccidioides* from a clinical specimen
- Identification of characteristic *Coccidioides* endospore-containing spherules in tissue or body fluid by histopathology
- Demonstration of *Coccidioides*-specific nucleic acid in a clinical specimen using a validated assay (e.g., PCR, DNA probe, MALDI-TOF)
- Detection of *Coccidioides* IgM antibodies in serum, cerebrospinal fluid (CSF) or other body fluid by immunodiffusion (ID), enzyme immunoassay (EIA), or tube precipitin (TP)
- Detection of *Coccidioides* IgG antibodies in serum, CSF or other body fluid by immunodiffusion (ID), enzyme immunoassay (EIA), or complement fixation (CF)

C. Wisconsin Surveillance Case Definition:

Confirmed: A clinically compatible case that meets at least one of the confirmatory laboratory criteria.

II. REPORTING

- A. Wisconsin Disease Surveillance Category II—Methods for Reporting: This disease shall be reported to the patient's local health officer or to the local health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § DHS 145.04 (3) (b). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report (F-44151) to the address on the form.
- B. **Responsibility for Reporting**: According to Wis. Admin. Code § <u>DHS 145.04(1)</u>, persons licensed under Wis. Stat. ch. <u>441</u> or <u>448</u>, laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in <u>Appendix A</u>.
- C. Clinical Criteria for Reporting: Clinically compatible illness in a person known to have traveled or resided in an endemic area.
- D. **Laboratory Criteria for Reporting:** Laboratory evidence of infection by culture or by non-culture-based methods. All positive results should be reported.

III. CASE INVESTIGATION

A. **Responsibility for case investigation:** It is the responsibility of the local health department (LHD) to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

B. Required Documentation:

- 1. Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs.
- 2. Clinical signs and symptoms, estimated date of illness onset, and travel history are necessary to determine case classification.
- 3. Upon completion of investigation, set WEDSS disease incident process status to "Sent to State."

C. Additional Investigation Responsibilities:

Determine whether the case is potentially outbreak-related and, if so, notify the Bureau of Communicable Diseases.

IV. PUBLIC HEALTH INTERVENTIONS AND PREVENTION MEASURES

- A. In accordance with Wis. Admin. Code § <u>DHS 145.05</u>, local public health agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics' *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
- B. Provide the patient with appropriate health education and offer link to Valley Fever Center of Excellence: https://vfce.arizona.edu/.

V. CONTACTS FOR CONSULTATION

- A. Local health departments and tribal health agencies: https://www.dhs.wisconsin.gov/lh-depts/index.htm
- B. Bureau of Communicable Diseases, Communicable Diseases Epidemiology Section: 608-267-9003

VI. RELATED REFERENCES

- A. Heymann DL, ed. Coccidioidomycosis. In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 116-119.
- B. Pickering LK, ed. Coccidioidomycosis. In: *Red Book*: 2015 Report of the Committee on Infectious Diseases. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015: 302-305.
- C. Centers for Disease Control and Prevention website: https://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html .
- D. University of Arizona Valley Fever Center of Excellence website: https://vfce.arizona.edu/.