

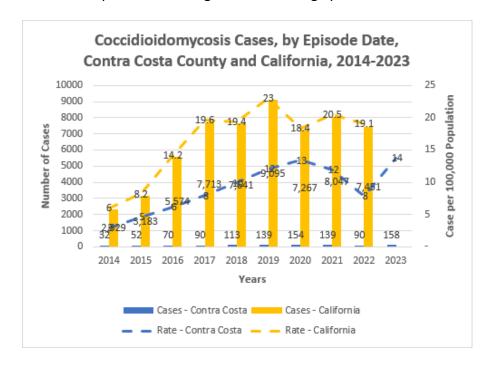
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Provider Health Advisory

June 3, 2024

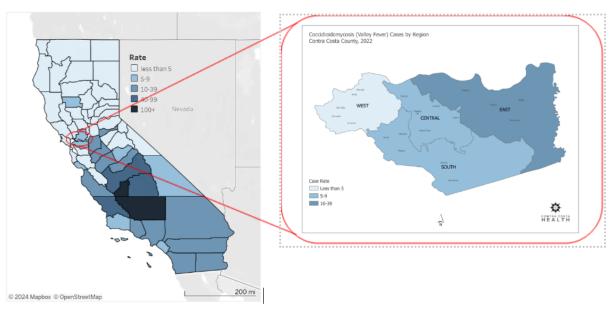
Coccidioidomycosis – aka Valley fever

In January 2024, the California Department of Public Health (CDPH), issued a <u>Health Advisory</u> on the substantial rise in Valley fever / Coccidioidomycosis cases reported for 2023. Unfortunately, 2023 had record numbers of confirmed coccidioidomycosis ("cocci" or "Valley fever") diagnoses as years of drought followed by heavy rains allowed for conditions that increased exposure to this fungal pathogen. Local Contra Costa data reflect a similar trend of increased cases and there is concern that this will continue as we approach the 2024 Valley fever season (usually late summer into fall/winter although it is possible to contract cocci year-round). Contra Costa Public Health is issuing this provider advisory to raise awareness about Valley fever and to assist providers to diagnose and manage patients with this infection.



It is often difficult to determine the exact location of exposure as the fungus grows in the soil and dirt. The fungus is endemic to southwestern United States, parts of the Pacific and Central/South America. However, the range is expanding, and exposure occurs when the spores are aerosolized and then inhaled into the lungs. Only a few spores are sufficient to cause infection. Consequently, those with unprotected occupational exposures are at high risk of infection especially if working where dirt is disturbed. However, anyone who lives, works or travels in areas where the fungal pathogen is endemic can be exposed.

Coccidioidomycosis (Valley Fever), California & Contra Costa, 2022



Rates per 100,000 people of Valley fever by County in California https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/ValleyFeverDashboard.aspx

The above California map shows the rates of cocci infection per 100,000 population for each county for 2022 when complete annual data were last available. Although Contra Costa County has moderate rates compared to the rest of California, these cases are not uniformly distributed and are highest in the eastern portion (see Contra Costa map). Contra Costa providers should be aware of the increase and associated demographics and be knowledgeable about the following:

When to Suspect Coccidioidomycosis Infection?

Although it is possible to have asymptomatic infection, symptoms can range from mild respiratory illness to severe pneumonia and disseminated disease including potentially fatal meningitis. Generally, symptoms develop 1 to 4 weeks after exposure but there can be variability in this. Delays in diagnosis can lead to unnecessary antibiotic use and more severe outcomes. Providers should be considering cocci if their patient:

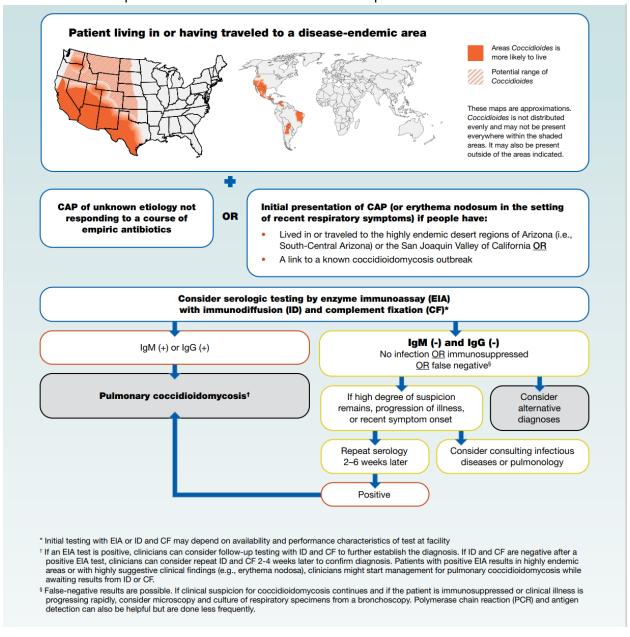
- lives, works, or traveled in <u>areas with coccidioidomycosis</u>;
- is exposed to outdoor dust or dirt;

- is symptomatic for a week or longer;
- has community-acquired pneumonia (CAP) of unknown etiology OR is not responding to standard treatment for CAP.

Erythema nodosum and erythema multiforme in the setting of respiratory illness are hallmark signs of cocci infection and providers should be "thinking cocci" in this setting.

How to Diagnose Coccidioidomycosis Infection?

The mainstay of diagnosis is by ordering serologic tests for cocci. Although imperfect tests that might result in unexpected results, <u>this algorithm</u> from the Centers for Disease Control and Prevention can help with when to order and how to interpret:



Source: When to Think Fungus: Coccidioidomycosis (cdc.gov)

How to Treat Coccidioidomycosis?

Treatment of cocci can be complex and warrants consultation with an infectious disease or pulmonary specialist. Not all patients with mild illness require treatment but careful consideration should be given to patients who are immunocompromised.

Resources are accessible at the end of this advisory and through the <u>Infectious Disease Society of America's clinical practice guidelines.</u>

How to Help Patients Prevent Infection?

Although there is no vaccine to help prevent illness from cocci, the California Department of Public Health (CDPH) has excellent resources to help you and your patients determine what is appropriate for them.

https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/ValleyFeverPrevention.aspx

How to Report Cases to Public Health?

Coccidiomycosis is a mandated reportable condition by both providers and laboratorians. To report a case to public health, please refer to our website for reporting guidance: Report a Disease or Outbreak | Contra Costa Health (cchealth.org)

Additional Resources:

Coccidioidomycosis (Valley Fever) (ca.gov)
Community-Acquired Pneumonia (CAP): Clinical Testing Algorithm for Coccidioidomycosis | Fungal
Diseases | CDC