Lab Dept: Serology
Test Name: COCCIDIOIDES ANTIBODY, CSF

General Information

Lab Order Codes: CABS
Synonyms: Cocci CF and ID, CSF; Coccidioides Antibody, Spinal Fluid; San Joaquin Valley Fever
CPT Codes: 86635 x3 – Antibody; Coccidiodes
Test Includes: Complement fixation and immunodiffusion coccidioides testing

Logistics

Test Indications: Serologic testing for coccidioidomycosis should be considered when patients exhibit symptoms of meningeal infection and have lived or traveled in areas where Coccidioides immitis is endemic. Any history of exposure to the organism or travel cannot be overemphasized when coccidioidomycosis serologic tests are being considered.

Lab Testing Sections: Serology - Sendouts
Referred to: Mayo Medical Laboratories (Test: COCC)
Phone Numbers:
MIN Lab: 612-813-6280
STP Lab: 651-220-6550

Test Availability: Daily, 24 hours
Turnaround Time: 3 – 6 days; test set up on Monday - Friday
Special Instructions: N/A

Specimen

Specimen Type: CSF
Container: Screw capped, plastic vial
Draw Volume: 2 mL (Minimum: 1.2 mL) spinal fluid
Processed Volume: Same as Draw Volume
Collection: Routine CSF collection

Special Processing: Lab Staff: Store specimen in a screw-capped, round-bottom, plastic vial refrigerated. Send specimen refrigerated. Forward promptly.

Patient Preparation: None

Sample Rejection: Specimens other than CSF, mislabeled or unlabeled specimens

**Interpretive**

<table>
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<tr>
<th>Reference Range:</th>
<th>Complement Fixation (CF):</th>
<th>Negative</th>
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<td>If positive, results are titered</td>
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Any CF titer in CSF should be considered significant. A positive complement fixation test in unconcentrated cerebrospinal fluid is diagnostic of meningitis.

<table>
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<th>Immunodiffusion:</th>
<th>Negative</th>
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<td>Results are reported as positive, negative or equivocal.</td>
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IgM and IgG precipitins are rarely found in CSF. However, when present, they are diagnostic of meningitis (100% specific). Since the immunodiffusion test is 100% specific, it is helpful in interpreting Complement Fixation results.

Early primary antibody (IgM) found in coccidioidomycosis can be detected by the IgM-specific Immunodiffusion test. IgM precipitins may be detectable within 1-4 weeks after the onset of symptoms. The presence of IgG antibody parallels the Complement Fixation antibody and indicates an active or a recent asymptomatic infection with *Coccidioides immitis*. Both IgG and IgM antibodies are rarely detected 6 months after infection. However, in some patients having disseminated infection both IgG and IgM antibodies may be present for several years. IgM and IgG precipitins are not prognostic.

An equivocal result (a band of non-identity) cannot be interpreted as significant for a specific diagnosis. However, this may be an indication that a patient should be followed serologically.

The sensitivity of serologic testing (Complement Fixation and Immunodiffusion combined) for coccidioidomycosis is >90% for primary symptomatic cases.

Critical Values: N/A
**Limitations:** While Complement fixation (CF) titers may be present in serum months after the infection has resolved, any CF titer in CSF should be considered significant.

**Methodology:** Complement Fixation (CF) using Coccidioidin Immunodiffusion for IgG/IgM

**References:** [Mayo Medical Laboratories Web Page](https://www.mayoreferences.com) August 2015