Lab Dept: Serology

Test Name: LEPTOSPIRA ANTIBODY

General Information

Lab Order Codes:	LEPA
Synonyms:	Leptospira Agglutination, Serum; Weil's disease; Leptospirosis Antibody: Leptospira IgM Ab
CPT Codes:	86720 – Antibody; Leptospira
Test Includes:	Leptospira Antibody reported as negative, equivocal or positive.

Logistics

Test Indications:	As an aid in the diagnosis of leptosprirosis. Known exposure to contaminated water. Usually abrupt onset with fever; may occur in 2 phases. Phase 1 has fever, chills, headache, muscle aches, vomiting or diarrhea. The patient may recover for a time but will become ill again. If a second phase occurs, it is more severe. The person may have kidney or liver failure or meningitis. This phase is also called Weil's disease. Incubation range is 2 days–4 weeks.
Lab Testing Sections:	Serology - Sendouts
Referred to:	Mayo Medical Laboratories (MML Test: LEPDT)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 3 days, test performed Monday, Wednesday and Friday
Special Instructions:	Acute and convalescent specimens obtained to determine seroconversion should be collected 2 or more weeks apart.

Specimen

Specimen Type:	Blood
Container:	SST (Gold, marble top or red tube)

Draw Volume:	1 mL (Minimum: 0.3 mL) blood
Processed Volume:	0.3 mL (Minimum: 0.1 mL) serum
Collection:	Routine venipuncture
Special Processing:	Lab Staff: Centrifuge specimen, remove serum aliquot. Store and ship at refrigerated temperatures. Mark specimens as acute or convalescent. Forward promptly.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range:	**Negative:** No significant level of Leptospira IgM detected. Since antibodies may not be present at undetectable levels during early disease, repeat testing of a convalescent sample collected in 2-3 weeks is recommended.
	Positive: IgM antibodies to Leptospira species detected suggesting recent infection. Antibody presence alone cannot be used to definitively diagnose acute infection, as antibodies from a prior exposure or infection may remain detectable for a prolonged period of time. Semi-Urgent result.
Critical Values:	N/A
Limitations:	The temporal IgM immune response can vary among patients. Therefore, a single negative result by this assay should not be used to exclude diagnosis, especially in patients with symptoms suggestive of leptospirosis who have an appropriate exposure history. This test does not distinguish between acute and past infection. Clinical correlation is required. Patients may remain seropositive for months to possibly years following resolution of disease; therefore, this test cannot be used to establish cure or response to therapy.
Methodology:	Enzyme-Linked Immunoassay Dot (Immunoblot)
References:	Mayo Medical Laboratories February 2017

Updates:	3/25/2004: Test moved from the Minnesota Department of Health to Mayo Medical Laboratories. 4/24/2008: Draw volumes temporarily increased for forward to ARUP. 2/17/2011: Testing performed internally at MML. Reference range and volume update. 7/8/16: Test update, MML now forwards to ARUP. Volume, Method and Ref Range updates. 2/9/2017: MML performs test inhouse, no longer forwarding to ARUP. Volume and ref range updates.