Lab Dept: Serology

Test Name: CHLAMYDIA ANTIBODIES, SERUM

General Information

Lab Order Codes:	CHLAB
Synonyms:	Chlamydia Antibodies IgG and IgM; *Chlamydia pneumonia*e IgG and IgM; *Chlamydia trachomatis* IgG and IgM; Chlamydia TWAR;, Ornithosis; Psittacosis Antibodies; TWAR; *Chlamydia psittacosi*s IgG and IgM
CPT Codes:	86631 x3 – Antibody; Chlamydia 86632 x3 – Antibody; chlamydia, IgM
Test Includes:	*Chlamydia pneumoniae* IgG and IgM, *Chlamydia psittaci* IgG and IgM and *Chlamydia trachomatis* IgG and IgM antibodies.

Logistics

Test Indications:	As an aid in the clinical diagnosis of chlamydial infections.
Lab Testing Sections:	Serology - Sendouts
Referred to:	Mayo Medical Laboratories (MML Test: SCLAM)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 3 days, test set up Monday – Saturday
Special Instructions:	Specify acute or convalescent specimen. Collect acute phase specimens as soon as possible after onset of illness and no later than 5 - 7 days. Specimens collected too early during primary infection may not contain detectable antibodies. If chlamydial infection is suspected, a second specimen should be drawn 10 – 21 days later and tested in parallel with the original specimen. Collect convalescent-phase specimen 2-3 weeks after onset.

Specimen

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

Draw Volume: 0.6 mL (Minimum: 0.5 mL) blood

Processed Volume: 0.2 mL (Minimum: 0.15 mL) serum

Collection: Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, separate serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.

Patient Preparation: None

Sample Rejection: Excessive hemolysis, specimen improperly labeled, warm specimens, gross lipemia, mislabeled or unlabeled specimens.

Interpretive

Reference Range:

Chlamydia species:	**IgG Antibody:**	**IgM Antibody:**
Chlamydia pneumoniae:	<1:64	<1:10
Chlamydia psittaci:	<1:64	<1:10
Chlamydia trachomatis:	<1:64	<1:10

Critical Values: N/A

Limitations:

Anti-chlamydial IgG can persist for years. All results from chlamydial serologies must correlate with clinical history and other data available to the physician.

Specimens obtained too early during primary infection may not contain detectable antibodies. If chlamydial infection is suspected, a second specimen should be drawn 10-21 days later and tested in parallel with the original specimen.

During a primary chlamydia infection, the early antibody response is cross-reactive with multiple chlamydia species. Cross-reactivity may also occur due to exposure to more than 1 chlamydia species.

Due to the unique subspecies-specific antigen on the *Chlamydia psittaci* organisms, the micro-immunofluorescent (MIF) assay for psittacosis is not expected to detect an antibody response in all cases. Sera from suspected cases of psittacosis should also be screened by complement fixation for detection of chlamydial group antigens.

Chlamydia micro-immunoflourescent antibody assay utilizes serotypes D-K of *Chlamydia trachomatis*. Sera from suspected cases of lymphogranuloma venereum should also be screened by complement fixation for detection of chlamydial group antigens. Complement fixation is not performed at Mayo.

Due to the limited sensitivity and specificity of Chlamydia serologic tests, patients with suspected Chlamydia trachomatis infection should be tested by a molecular method when clinical manifestations are present.

Methodology:

Micro-Immunofluorescent Antibody (MIF) Assay

References:

Mayo Medical Laboratories December 2017

Schacter J (1999), Chlamydiae Manual of Clinical Laboratory Immunology, 5th ed, Chapter 64, Rose NR, Conway de Macario E, Fahey Jl, etal, eds, Washington,DC: American Society of Microbiology, 592-7

Updates:

12/21/2017: Collection container update.