Lab Dept:	**Chemistry**
Test Name:	**ASO (ANTISTEPTOLYSIN O)**

General Information

Lab Order Codes:	ASOT
Synonyms:	Antistreptolysin-O (ASO) Quantitative
CPT Codes:	86060 – Antistreptolysin O; titer
Test Includes:	Antistreptolysin O concentration reported in IU/mL. If anti-DNase B is also desired, see Streptococcal Antibodies

Logistics

Test Indications:	Antistreptolysin O (ASO) titers are used to diagnose current versus past infections with group A streptococci. The test detects antibodies to Streptolysin O, one of the many streptococcal antigens. In addition, it may be used to help diagnose rheumatic fever.
Lab Testing Sections:	Chemistry - Sendouts
Referred to:	Mayo Medical Laboratories (MML Test: ASO)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 3 days, testing performed Monday-Saturday
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	SST (Gold, marble or red) tube
Draw Volume:	3 mL (Minimum: 1.5 mL) blood
Processed Volume:	1 mL (Minimum: 0.5 mL) serum
Collection:	Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic sample cup. Store at refrigerated temperatures.

Patient Preparation: Fasting is preferred, but not required.

Sample Rejection: Mislabeled or unlabeled; specimens other than serum; gross lipemia

Interpretive

Reference Range:

Age:	Range (IU/mL):
<5 years:	Less than or equal to 70 IU/mL
5 – 17 years:	Less than or equal to 640 IU/mL
≥18 years:	Less than or equal to 530 IU/mL

Interpretation: Elevated values are consistent with an antecedent infection by group A streptococci. Although the antistreptolysin O (ASO) test is quite reliable, performing the anti-DNase is justified because ASO response is not universal and elevated ASO titers are found in the sera of about 85% of individuals with rheumatic fever. ASO titers remain normal in about 15% of individuals with the disease. The same holds true for other streptococcal antibody tests. A significant portion of individuals with normal antibody titers for 1 test will have elevated antibody titers for another test. Thus, the percentage of false-negatives can be reduced by performing 2 or more antibody tests. Skin infections, in contrast to throat infections, are associated with a poor ASO response. Patients with acute glomerulonephritis following skin infection (post-impetigo) have an attenuated immune response to streptolysin O. For such patients, performance of an alternative streptococcal antibody test such as anti-DNase B is recommended.

Critical Values: N/A

Limitations: The use of the antistreptolysin O (ASO) for the diagnosis of an acute A streptococcal infection is rarely indicated, unless the patient has received antibiotics that would render the culture negative. There are a certain limitations to the use of the ASO test in these circumstances due to the delay and attenuation of the immune response following early antibiotic therapy.

False-high titers may be obtained wit sera that are contaminated by certain bacterial organisms during shipment or storage and n patients with liver disease where the presence of high lipoprotein concentrations in the serum may mimic antibody activity.

Methodology: Nephelometry

References: Mayo Medical Laboratories November 2017

Updates:	3/24/2014: Moved from an internal test to Mayo. 12/8/2017: Updated collection container.