

March 3, 2020

IMMUNOLOGY

ALPHA-2-MACROGLOBULIN TESTING**Date effective: March 9, 2020****Background Information:**

Alpha-2-Macroglobulin testing, currently being referred to In-Common Laboratories, will now be performed at the Health Sciences Centre Immunology Laboratory using a turbidimetric technique.

Alpha-2-Macroglobulin inhibits proteases of all classes, including a variety of coagulation enzymes, such as thrombin, plasmin and kallikrein. Quantitation can be used to aid in the diagnosis of blood-clotting or clot lysis disorders.

The concentration of alpha-2-macroglobulin rises 10-fold or more in the nephrotic syndrome when other lower molecular weight proteins are lost in the urine and alpha-2-macroglobulin is retained because of its large size. In patients with liver cirrhosis and diabetes, the levels are found to be elevated.

Patients with acute pancreatitis exhibit low serum concentrations which correlate with the severity of the disease. In hyperfibrinolytic states, after major surgery, in septicemia and severe hepatic insufficiency, the measured levels of alpha-2-macroglobulin are often low.

Change in Test Procedure:

- Test Code: A2M
- Sample Type: Serum
- Sample Volume: 1.0ml
- Referral: Separate serum and ship refrigerated, or frozen if greater than 7 days from time of collection.
- Requisition: Immunology Test Req R250-10-21 V01 (Record under Additional Tests)
- Availability: Weekdays (Hours of Operation: Mon-Fri, 0700-1700, excluding holidays)
- TAT: 5 days
- Reference Range: Adult: 0.74 – 2.98 g/L
Alpha-2-macroglobulin is the most important inhibitor of coagulation in newborns thus the serum level is relatively high compared to adults.

References/Resources:

[Laboratory Information Manual.](#)

Patient Impact:

- Decreased turnaround time.

System Improvements:

- Improved sustainability
- Decreased operating costs

Contact Information:

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