

May 5: COVID-19 Clinical Update

Antibody Testing

This daily communication is intended to facilitate the sharing of important clinical information during the COVID-19 healthcare crisis and to help respond to questions from physicians across Northwestern Medicine.

Today's issue features information about the roll-out of antibody testing provided by Senior Vice President Daniel Derman, MD; Pathologist Gregory Retzinger, MD, and NMH Vice President of Operations Kenneth Hedley.

ANTI-SARS-CoV-2 IMMUNOGLOBULIN, IgG

Over the past several weeks, there has been increasing interest in antibody testing for SARS-CoV-2. On April 28, NMH and CDH Clinical Laboratories began offering anti-SARS-CoV-2 IgG testing using the Abbott Architect i2000SR platform. The assay is designed to detect IgG antibodies directed against the nucleocapsid protein of the virus.

Currently, testing is restricted to hospitalized patients with a clinical syndrome consistent with COVID-19 with symptoms longer than two weeks but negative for SARS-CoV-2 by nucleic acid amplification. The order must be approved by a consulting Infectious Disease physician.

Test Name: SARS-CoV-2 Antibody IgG LAB15434

Synonym: COVID 19 IgG Antibody

Test Code: COVIGG

CPT Code: 86769

Reporting

Result	Reference Range	Abnormal Flag
SARS-CoV-2 Antibody IgG	Negative	Positive
SARS-CoV-2 IgG Index	≤ 1.3	≥ 1.4

- Negative results do not exclude SARS-CoV-2 infection, particularly in those who have had very recent exposure. Follow-up testing using a molecular diagnostic test should be considered to help rule out infection in such individuals.
- Results from antibody testing should not be used as the sole basis to inform infection status or to diagnose or exclude SARS-CoV-2 infection.
- Positive results may be due to past or present infection with non-SARS-CoV-2 coronavirus strains, such as HKU1, NL63, OC43 or 229E (see tables below).
- This antibody test is not for screening of donated blood.

Clinical Performance

Negative Percent Agreement (NPA)

Specimen Category	N	Positive	Negative	NPA
Pre-COVID-19	997	4	993	99.6%

Positive Percent Agreement (PPA)

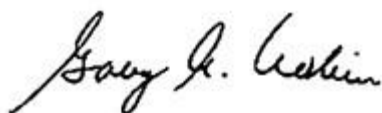
Specimen Category Days Post-Symptom Onset	N	Positive	Negative	PPA
<3	5	0	5	0.0%
3 - 7	10	5	5	50.0%
8 - 13	34	31	3	91.2%
≥14	73	73	0	100.0%

Turnaround Time: Testing performed daily – expected turnaround within 24 hours.

Specimen Requirement: A gold-top Vacutainer® tube is preferred, otherwise serum, 0.5 mL minimum.

We will continue to monitor the science behind antibody testing, and as new information becomes available, we will update NM guidelines and recommendations for testing.

Thank you to all NM physicians and clinicians for your ongoing collaboration and dedication to providing exceptional care during this unprecedented crisis. If you have questions or would like to share the story of an NM hero, please email us at covid-19md@nm.org.



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