

## May 15: COVID-19 Clinical Update

### Virology and Serology Testing and Clinical Insights Panel Q&A

*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.*

In today's issue, you will find new information about virology and serology testing, and questions and answers from the May 7 Clinical Insights Panel.

#### **VIROLOGY TESTING**

In the past two weeks, NM has increased SARS-CoV-2 virology testing volumes from about 500 per day to a high of more than 1,000 tests. We now test the following individuals using normal ordering workflows:

- Inpatients upon admission
- Labor and Delivery patients
- Most surgical and procedural patients
- Symptomatic ED discharge patients who meet high-risk criteria
- Symptomatic ambulatory patients who meet high-risk criteria
- Healthcare workers who were part of an exposure or are symptomatic

Virologic testing capacity continues to increase. We are currently evaluating expanded criteria for symptomatic ED and ambulatory patients. Please find the most up-to-date information on the Testing Resources pages of [NM Interactive](#) (*login required*) and [Physician Forum](#) (*no login required*).

#### **SEROLOGY TESTING**

Serological tests help determine whether an individual has antibodies to SARS-CoV-2, although it is not yet known whether developing antibodies to the virus will provide protection against future infections.

NM now offers serology testing for patients starting today. More information will be posted on the Testing Resources pages of [NM Interactive](#) and [Physician Forum](#) later today.

NM is planning to launch voluntary, no cost serologic testing on **Monday, May 25**, for employees, physicians, residents, medical students and other NM healthcare workers. Testing will open in waves to help maintain physical distancing and will be performed in specimen collection sites across the health system, including outpatient labs, diagnostic testing centers and Immediate

Care Centers. Individuals who get tested can also volunteer to participate in research studies that advance our understanding of COVID-19.

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### CLINICAL INSIGHTS PANEL Q&A

A Clinical Insights Panel open to all Northwestern Medicine physicians was held last week, and below are several of the questions and answers. Panelists included:

- **Michael G. Ison, MD, MS** Infectious Disease
- **Saadia S. Sherwani, MD**, Anesthesiology
- **Patrick J. Towne, MD**, Internal Medicine, and president, RMG
- **Teresa R. Zembower, MD**, Infectious Disease

### TESTING

**Q: Is the IgG antibody test we use at NM specific for SARS-CoV-2 or does it also pick up other coronavirus strains?**

A: The test was designed as an enzyme-linked immunosorbent assay (ELISA) with specificity for SARS-CoV-2 IgG to nucleocapsid. The Negative Predictive Value (which is related to the specificity) is listed from the company as 99.6%. There have been some strains of other coronaviruses that can cross react with these tests, and the Food and Drug Administration requires all serologic assays on the market to indicate this possibility.

**Q: What percentage of patients with suspected COVID-19 have a positive IgM antibody and negative RT-PCR COVID test?**

A: We don't have data available to answer this question exactly. IgM by itself has a sensitivity of 82.7%. The sensitivity per day of symptom onset is 28.7% from days one to seven, 73.3% from days eight to 14, and 94.3% from days 15 to 39. After day 39, IgM starts to drop. As RT-PCR starts to drop and IgM starts to rise, they cross over at 5.5 days (PCR dropping, IgM rising).

**Q: Can we order COVID-19 testing for individuals who want return to work, or if their employers require it?**

A: Patients who require testing to return to work can get tested at an [Alternate Testing Site](#). Refer to [Testing Guidelines](#) for more information.

**Q: Do we expect testing guidelines to be expanded soon?**

NM continues to expand testing capacity at its hospitals. To get tested, patients must meet [Testing Criteria](#). You can place the appropriate SARS-CoV-2-NAT order within the "COVID-19 Testing" SmartSet. See the [Order Placement and Result Follow-up Tip Sheet](#). Find information on the "Testing Resources" pages of [NM Interactive](#) (login required) and [Physician Forum](#) (no login required).

### TREATMENT/PATIENT CLEARANCE

**Q: When will remdesivir be available across the system for patient treatment?**

A: The FDA issued an emergency use authorization allowing the use of remdesivir to treat severely ill patients with suspected or confirmed COVID-19 who are admitted to the hospital and meet the following criteria: Have SpO<sub>2</sub> ≤ 94% on room air and require supplemental oxygen, mechanical ventilation or extracorporeal membrane oxygenation (ECMO). Patients can receive the medication for five days if they are not intubated or on ECMO, or 10 days if they are. The government began distributing the drug last week.

Northwestern Memorial Hospital is the only NM facility that will receive remdesivir. We have enough doses to treat approximately 50 to 60 patients, and we don't know if or when we will receive additional doses when the current supply is depleted. Read Dr. Ison's article [Emergency](#)

[Use Authorization of Remdesivir, The Need for a Transparent Distribution Process](#), in the *Journal of the American Medical Association*.

**Q: Where can we get more information about donating plasma?**

A: The following resources can help patients decide if donation is right for them and if they meet criteria. You can also refer to the [COVID-19 Toolkit](#):

- American Association of Blood Banks allows you to enroll as a potential donor and find the blood supplier nearest to where you live or work. Visit [covidplasma.org](https://covidplasma.org).
- [American Red Cross](#)
- [Versiti](#)
- [Vitalant](#)

**Q: What is the volume of COVID-19 admissions expected to be in the fall relative to this current phase?**

A: Many authorities predict a second or third wave of COVID-19 infections may start this fall, based on data from past pandemics. We will continue to prepare by updating and implementing masking, testing, exposure management, PPE and contact tracing guidelines, and closely monitoring the development of vaccines, antivirals, convalescent plasma and monoclonal antibody therapies.

**Q: When is it safe to allow a previous COVID-19 patient back into the office for visits?**


A: Confirmed or presumed positive COVID-19 patients will retain a COVID-19 infection flag in the medical record for 40 days past the date of original result or entering the monitoring program. Early research has shown the longest reported viral shedding of 37 days. Patients with average risk typically have viral shedding between seven and 10 days. Discontinuation of transmission-based precautions in the outpatient setting prior to 40 days from positive result or presumptive positive diagnosis must satisfy the specifications outlined in [Clinical Clearance Guidelines](#).

**Q: Are full oropharyngeal exams with tongue depressor considered aerosol generating procedures (AGP)?**

A: AGPs are patient care or therapies that have a high risk for aerosolizing infectious particles from respiratory secretions. View the [Clinical FAQs for NM Workforce](#) for a list of AGPs that may produce aerosolized respiratory secretions. Procedures that produce aerosolized particles from other secretions, skin or tissue are not included, as they cannot transmit viable SARS-CoV-2 virus particles.

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Thank you for your extraordinary dedication and collaboration in providing exceptional care to our patients and supporting one another 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](mailto:covid-19md@nm.org).



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