

## Negative COVID-19 Test Results and Critical Care Management at NMH

*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 information about new Epic functionality that helps physicians and APPs manage negative COVID-19 test results for inpatients. Also, take an inside look at the COVID-19 ICUs at Northwestern Memorial Hospital provided by G.R. Scott Budinger, MD, chief of Pulmonary and Critical Care in the Department of Medicine, and Pulmonologists Michael Cuttica, MD and Michelle Prickett, MD.

### **NEGATIVE COVID-19 TEST RESULTS**

A new BPA will go-live today at noon that will protect patients and enable physicians to provide appropriate care. When a patient tests negative for COVID-19, "R/O COVID" flag will be removed from the chart and be replaced with the "Patient has Negative COVID-19 Test Result" BPA.

A negative result does not rule out COVID-19; therefore, an isolation order for a patient cannot be removed when this BPA is present. Physicians must first review the negative result then choose to treat the patient as COVID-19 Negative, treat as COVID-19 Presumed Positive, or defer action for further analysis.

For more information about the Epic workflow, view the Managing Negative COVID-19 Results tip sheet on [NMI](#) and [Physician Forum](#).

### **CRITICAL CARE MANAGEMENT AT NMH**

The Northwestern Memorial Hospital COVID-19 ICU has seen a steady increase in volume of patients since it opened March 13. Galter 9, formerly Intensive Care and Cardiac Care units, was converted to a negative airflow ward and is staffed by Pulmonary and Critical Care attendings and fellows, as well as advanced practice providers and senior residents. As the patient census and COVID-19 teams expanded, the demand for more space led to the conversion of Galter 10 (formerly Cardiac Observation) and Feinberg 9 East (formerly Neuro-ICU) to negative airflow wards.

### **The COVID-19 ICU Patient Profile**

The most serious reported symptoms of COVID-19 are pulmonary complications. As of April 13, 115 patients with confirmed COVID-19 have been admitted to COVID-19 ICUs at NMH since March 13. The clinical team has noted a pattern of disease progression somewhat unique to COVID-19-induced Acute Respiratory Distress Syndrome (ARDS). This pattern has helped guide the ventilator management plan employed to support patients through their critical illness.

- More than 60% are male.
- Average age is 60 years old, with a range from 15 to 90 years old.
- Fifty-two percent were admitted from the ED or transferred from outside hospitals; the remaining patients were admitted from COVID-19 floors.
- The primary reason for ICU admission was acute hypoxic respiratory failure due to COVID-19 pneumonia, with 75% requiring mechanical ventilation for an average of six-and-a-half days.
- Patients typically present with single organ system failure with an acute lung injury consistent with acute respiratory distress syndrome (ARDS).
- Average length of stay in the ICU is 8 days.

#### **Clinical trials underway**

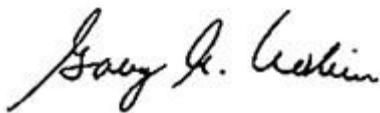
COVID-19 ICUs at NMH have been actively enrolling patients in two randomized controlled trials for the treatment of patients with COVID-19. Infectious Disease is managing the first trial to study the antiviral drug remdesivir, while Pulmonary and Critical Care is managing the second trial to study the use of sarilumab, an anti-IL6 therapy. Additional studies are being considered.

Sixty-one patients have been discharged from the ICU, including 38 patients who required mechanical ventilation; 29 patients have been sent home. The combined team work of the MICU medical staff, ICU nursing and respiratory therapy at the forefront of managing Northwestern's critical care response to the COVID-19 pandemic has been key to achieving seamless patient care in these difficult times.

The clinicians involved with the management of critically ill patients with COVID-19 continue to collaborate across NM. To find COVID-19 Critical Care Guidelines, visit [NMI](#) (*login required*) and [Physician Forum](#) (*no login required*).

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Thank you to all Northwestern Medicine healthcare providers on the front lines of this crisis for your continued dedication and collaboration in providing exceptional care to the patients and communities we serve. If you have any 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).



**Gary A. Noskin, MD**  
Senior Vice President, Quality  
Northwestern Memorial HealthCare  
Chief Medical Officer  
Northwestern Memorial Hospital