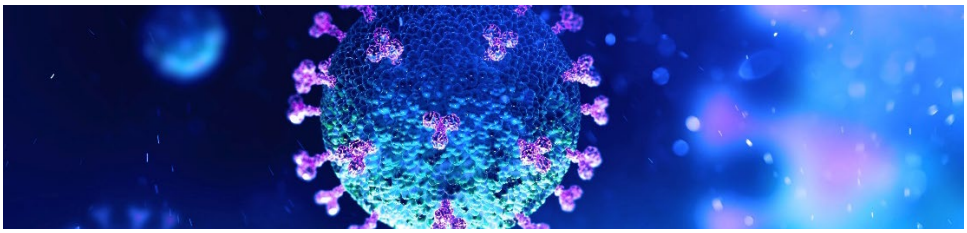

# April 24: COVID-19 Clinical Update

## COVID-19 Clinical Clearance and Rehabilitation of the COVID-19 Patient

*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 *Clinical Update* provides inpatient and ambulatory guidelines for the clinical clearance of patients with confirmed and suspected COVID-19, and discusses rehabilitation of patients with COVID-19 with information provided by Marianjoy Rehabilitation Hospital Chief Medical Officer Mahesh Ramachandran, MD.

**COVID-19 INPATIENT AND OUTPATIENT CLINICAL CLEARANCE**

Confirmed and presumed positive COVID-19 inpatients will retain a COVID-19 infection flag in the medical record for 40 days past the date of discharge. Early research has shown the longest reported duration of viral shedding is 37 days. Discontinuation of transmission-based precautions in the inpatient setting prior to 40 days from a positive result must satisfy certain testing specifications. Clearance for patients in the ambulatory setting must all satisfy specific transmission precautions and clearance criteria. Please view the Clinical Clearance Algorithm for additional information.

**REHABILITATION OF THE COVID-19 PATIENT**

Management of the COVID-19 patient has been clinically challenging across the healthcare system due to the uniqueness of the virus and its multiple manifestations.

At Marianjoy Rehabilitation Hospital, the rehabilitation teams involved in the care of COVID-19 patients have had to adapt their work flows and form new strategies to optimize patient care and achieve the best possible functional outcomes. These patients present with unique medical and psychosocial barriers that need to be overcome to ensure safe discharge home.

From a medical perspective, several patients have had prolonged mechanical ventilation, sometimes two to three weeks in duration, resulting in severe respiratory compromise and deconditioning. As a result, patients may become hypoxic with very little activity, and frequently become tachycardic and hypotensive.

Physical and Occupational Therapy teams need to alter their typical approach in managing these patients by initially decreasing intensity of the sessions and often giving more rest

breaks. Initial progress is slow, but then patients gradually become reconditioned and can begin to tolerate an increased level of activity.

Due to prolonged bed rest, patients can develop neuromuscular deficits, such as critical illness myopathies and neuropathies, which may require specialized bracing and exercise programs to help improve functional progress. Patients also are prone to pressure ulcers in the acute hospital setting, so wound management, nutrition and rehabilitation nursing are essential to heal these wounds properly.

Multiple studies from China have shown that COVID-19 patients are hypercoagulable and more prone to strokes; anticoagulation management must be part of the treatment regimen. These studies also show an increased prevalence of neurologic disorders, such as seizures and encephalitis. Speech therapy is required for evaluation and treatment of cognitive deficits. Neuropsychologists are involved in almost every case to further evaluate cognition. Neuropsychologists also play a major role in coping and stress reduction, as these patients, due to the severity of their illnesses, have just gone through a traumatic experience in the acute care hospital. When they come to rehabilitation, patients frequently tell us, “I am fortunate to be alive.”

Treatment of COVID-19 has certainly been challenging due to the multiple manifestations of the disease. A multidisciplinary approach to treatment is essential to provide the best care possible, as well as to improve functional outcomes. Despite the complexities, our rehabilitation teams find their work with these patients to be very rewarding. When patients are finally able to go home to their families, they express an extreme level of gratitude, and the rehabilitation team feels a tremendous sense of accomplishment.

Since Marianjoy opened its COVID-19 inpatient unit on April 10, they have admitted 22 patients. Two of those patients were successfully rehabilitated and discharged. The anticipated average length of stay for a patient with COVID-19 is 20 days.

To refer a patient for rehabilitation, NM providers or care coordinators can submit referrals via Allscripts or reach out to the assigned clinical referral liaison for their hospital.

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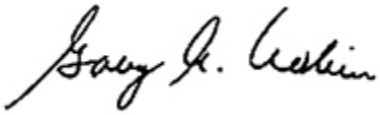
Thank you to all Northwestern Medicine healthcare providers on the front lines of this crisis. If you have any questions, or would like to share the story of an NM hero, please email us at **covid-19md@nm.org**.



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