

FLCCC PROTOCOLS FOR COVID-19
I-MASK+ PREVENTION & EARLY OUTPATIENT PROTOCOL
 V.16 – SEPT. 1, 2021

MATH+ HOSPITAL TREATMENT PROTOCOL
 V.13 – JUNE 30, 2021

I-RECOVER MANAGEMENT PROTOCOL FOR LONG HAUL COVID-19 SYNDROME
 V.1 – JUNE 16, 2021

COMPLETE GUIDE TO THE CARE OF THE COVID-19 PATIENT
 V. SEPT. 5, 2021

GUIA COMPLETA PARA EL CUIDADO DEL PACIENTE CON COVID-19
 V. SEPT. 5, 2021 – TRANSLATION – SEPT. 5, 2021

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MATH+ Hospital Treatment Protocol for COVID-19

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Below you can download the **MATH+ Hospital Treatment Protocol for COVID-19**, for use by professionals, with detailed guidance on the timing of initiation along with the suggested initial doses and durations of each component medication. The protocol document is available for download in multiple languages (see below) – more translations are available [here](#).

Please also review our [I-MASK+ Prevention & Early Outpatient Treatment Protocol for COVID-19](#), which was developed for the prevention and early outpatient treatment of COVID-19. Both are physiologic-based combination treatment regimens developed by leaders in critical care medicine. All component medicines are FDA-approved, inexpensive, readily available and have been used for decades with well-established safety profiles. **In October 2020, we added Ivermectin as a core medication** in the prevention and treatment of COVID-19.

Please do not consider these protocols as personal medical advice, but as a recommendation for use by professional providers. Consult with your doctor, share the information on this website and discuss with her/him. Please review our [Disclaimers!](#)

Please check this page regularly for updates – new medications may be added and/or doses changed to existing medications as further scientific studies emerge.

Current MATH+ protocol: version 13, updated on June 30, 2021.

Hospital Treatment Protocol for COVID-19

Protocole de traitement hospitalier pour le COVID-19

Protocolo de tratamiento hospitalario para COVID-19

Protocollo di trattamento ospedaliero per COVID-19

Protocolo de tratamento hospitalar para COVID-19

Protokoll zur Behandlung von COVID-19 im Krankenhaus


 For more translations please go to [Translations of Selected Files](#).

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About the MATH+ Protocol

Update: On December 14, 2020, the FLCCC Alliance peer-reviewed paper [Clinical and Scientific Rationale for the “MATH+” Hospital Treatment Protocol for COVID-19](#) has been published in the [Journal of Intensive Care Medicine](#). The MATH+ protocol potentially offers a life-saving approach to the management of hospitalized COVID-19 patients. It offers an inexpensive combination of medicines with well-known safety profiles based on strong physiologic rationale and an increasing clinical evidence base.

The **MATH+ Hospital Treatment Protocol for COVID-19** is designed for hospitalized patients, to be initiated as soon as possible after they develop respiratory difficulty and require oxygen supplementation. The three core pathophysiologic processes that have been identified are severe hypoxemia, hyperinflammation, and hypercoagulability. This combination medication protocol is designed to counteract these processes either through the use of single agents or in synergistic actions. A unique insight into this disease made by members of our group is that the majority of patients initially present with an inflammatory reaction in the lungs called “organizing pneumonia,” which is the body’s reaction to injury and is profoundly responsive to corticosteroid therapy. If the organizing pneumonia response is left untreated or presents as a rapidly progressive sub-type, a condition called Acute Respiratory Distress Syndrome (ARDS) follows.

The two main therapies that can reverse and/or mitigate the extreme inflammation causing ARDS are the combination of the corticosteroid Methylprednisolone and the antioxidant Ascorbic acid, which is given intravenously and in high doses. Both of these medicines have multiple synergistic physiologic effects and have been shown in multiple randomized controlled trials to improve survival in ARDS, particularly when given early in the disease. Thiamine is given to optimize cellular oxygen utilization and energy consumption, protecting the heart, brain, and immune system. Given the numerous clinical and scientific investigations that have demonstrated consistent, reproducible, and excessive levels of hyper-coagulation, particularly in the severely ill, the anticoagulant Heparin is used to both prevent and help in dissolving blood clots that appear with a very high frequency. The “+” sign indicates several important co-interventions that have a combination of strong physiologic rationale with existing or emerging pre-clinical and clinical data to support their use in similar conditions or in COVID-19 itself, and all with a well-established safety profile. Such adjunctive therapies are continuously being evaluated and amended as the published medical evidence evolves.

Timing is a critical factor in the efficacy of MATH+ and to achieving successful outcomes in patients ill with COVID-19. Patients must go to the hospital as soon as they experience difficulty breathing or have a low oxygen level. The **MATH+** protocol should be administered soon after a patient meets criteria for oxygen supplementation (within the first hours after arrival in the hospital), in order to achieve maximal efficacy. Delayed therapy can lead to complications such as the need for mechanical ventilation. If administered early, the **MATH+** formula of FDA-approved, safe, inexpensive, and readily available drugs may eliminate the need for ICU beds and mechanical ventilators and return patients to health.

MATH+ Hospital Treatment Protocol for COVID-19

MEDICATION	INDICATION/INITIATION	RECOMMENDED DOSING	TITRATION/DURATION
METHYLPREDNISOLONE	A. Upon oxygen requirement or abnormal chest X-ray	Preferred: 80 mg IV bolus, then 40 mg IV twice daily Alternate: 80 mg /240 ml normal saline IV infusion at 10 ml/hr Follow COVID-19 Respiratory Failure protocol (see flccc.net/respiratory-support<t19/)	A1. If no improvement in oxygenation in 2–4 days, double dose to 160 mg/daily. A2. Upon need for FIO ₂ > 0.6 or ICU, escalate to “Pulse Dose” below (B) A3. Once off IMV, NPPV, or High flow O ₂ , decrease to 20 mg twice daily. Once off O ₂ , then taper with 20 mg/day × 5 days then 10 mg/day × 5 days
	B. Refractory illness/ Cytokine Storm	“Pulse” dose with 125–250 mg IV every 6 hours	Continue × 3 days then decrease to 160 mg IV/daily dose above, taper according to oxygen requirement (A). If no response or CRP/ferritin high/rising, consider mega-dose IV ascorbic acid and/or “Therapeutic Plasma Exchange” below
ASCORBIC ACID	O ₂ < 4L on hospital ward	500–1000 mg oral every 6 hours	Until discharge
	O ₂ > 4L or in ICU	50 mg/kg IV every 6 hours	Up to 7 days or until discharge from ICU, then switch to oral dose above
	If in ICU and not improving	Consider mega-doses: 25 grams IV twice daily for 3 days	Completion of 3 days of therapy
THIAMINE	ICU patients	200 mg IV twice daily	Up to 7 days or until discharge from ICU
HEPARIN (LMWH)	If initiated on a hospital ward	1 mg/kg twice daily – Monitor anti-Xa levels, target 0.6–1.1 IU/ml	Until discharge then start DOAC at half dose × 4 weeks
	If initiated in the ICU	0.5 mg/kg twice daily – Monitor anti-Xa levels, target 0.2–0.5 IU/ml	
IVERMECTIN* (a core medication)	Upon admission to hospital and/or ICU	0.4–0.6 mg/kg per dose – daily (Take with or after meals)	For 5 days or until recovered
Fluvoxamine**	Hospitalized patients	50 mg PO twice daily	10–14 days
Cyproheptadine	If any of: 1) on fluvoxamine, 2) hypoxemic, 3) tachypneic/respiratory distress, 4) oliguric/kidney injury	8 mg – 3 x daily	until discharge, slow taper once sustained improvements noted
Anti-Androgen Therapy (Men only)	Hospitalized patients	Dutasteride 0.5 mg daily or Finasteride 5 mg daily	until fully recovered
Vitamin D	Hospitalized patients	Calcifediol preferred: 0.5 mg PO day 1, then 0.2 mg PO day 2 and weekly thereafter	Until discharge
		Cholecalciferol: 20,000–60,000 IU single dose PO then 20,000 IU weekly	
Atorvastatin	ICU Patients	80 mg PO daily	Until discharge
Melatonin	Hospitalized patients	6–12 mg PO at night	Until discharge
Zinc	Hospitalized patients	75–100 mg PO daily	Until discharge
Famotidine	Hospitalized Patients	40–80 mg PO twice daily	Until discharge
Therapeutic Plasma Exchange	Patients refractory to pulse-dose steroids	5 sessions, every other day	Completion of 5 exchanges

Legends: CRP = C-Reactive Protein, DOAC = direct oral anti-coagulant, FIO₂ = Fraction of Inspired oxygen, ICU = Intensive Care Unit, IMV = Invasive Mechanical Ventilation, IU = International units, IV = intravenous, NPPV = Non-Invasive Positive Pressure Ventilation, O₂ = oxygen, PO (per os) = oral administration
 * The safety of ivermectin in pregnancy has not been established thus treatment decisions require an assessment of the risks vs. benefits in a given clinical situation.
 ** Some individuals who are prescribed fluvoxamine experience acute anxiety which needs to be carefully monitored for and treated by the prescribing clinician to prevent rare escalation to suicidal or violent behavior.

For **optional medicines** and an overview of the developments in prevention and treatment of COVID-19, please visit flccc.net/optional-medicines

Please check our homepage www.flccc.net regularly for updates of our COVID-19 Protocols! – New medications may be added and/or dose changes to existing medications may be made as further scientific studies emerge! **flccc.net**

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Contact

MAILING ADDRESS
 FLCCC Alliance
 2001 L St NW Suite 500
 Washington, DC 20036

MEDIA
press@flccc.net
CLINICAL SUPPORT
clinical@flccc.net
GENERAL
support@flccc.net

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