FLCCC ALLIANCE

MATH+ Hospital Treatment Protocol for COVID-19

MATH+ HOSPITAL TREATMENT PROTOCOL FOR COVID-19

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 **M**ethylprednisolone and the antioxidant **A**scorbic 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. **T**hiamine 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 **H**eparin 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 can eliminate the need for ICU beds and mechanical ventilators and return patients to health.