

MATH+

Hospital Treatment Protocol for COVID-19

TO CONTROL INFLAMMATION & EXCESS CLOTTING

In all COVID-19 hospitalized patients, the therapeutic focus must be placed on early intervention utilizing powerful, evidence-based therapies to counteract:

- The overwhelming and damaging inflammatory response
- The systemic and severe hyper-coagulable state causing organ damage

By initiating the protocol within 6 hours of presentation in the emergency room, the need for mechanical ventilators and ICU beds will decrease dramatically.

MATH+ Protocol for an early intervention in the treatment of Covid-19

1. Methylprednisolone [Intravenous]

- Mild Hypoxia (<4L): 40 mg daily until off oxygen
 - Moderate–Severe Illness: 80 mg bolus then 20mg q6h IV push for 7 days*
 - Alternate: 80 mg daily for 7 days*
 - Day 8: Switch to oral prednisone, taper over 6 days
- (*Consider higher doses for patients with non-improving ARDS/oxygenation and/or with persistent, rising, or severely elevated inflammatory markers (cytokine storm), i.e. 60–125 mg q6h–q8h, or 1,000 mg/day for 3 days)

2. Ascorbic Acid [High Dose Infusion]

- 3 grams/100 ml q6h q6h/q12h = every 6/12 hours
- Continue for a total of 7 days or until discharged

3. Thiamine

- 200 mg IV q12h until discharged

4. Heparin [Full Dose Low Molecular Weight]

- Mild Illness: 60 mg daily (30,000 units) 1 unit = 0.002 mg pure Heparin
 - Moderate–Severe Illness: 1 mg/kg (500 units/kg)* q12h CrCl = Creatinine Clearance (C_{Cr})
- (*dose adjust with CrCl < 30 ml/min, use heparin if CrCl < 15 ml/min; In Covid-19, factor Xa levels often sub-therapeutic despite “full treatment dose” above. Monitor Xa levels, adjust dose as needed)
- Continue until discharged

5. PLUS optional co-interventions: Zinc, Vitamin D, Famotidine, Magnesium, and Melatonin

TREATMENT OF LOW OXYGEN

- If patient has low oxygen saturation on nasal cannula, initiate heated high flow nasal cannula.
- Do not hesitate to increase flow limits as needed.
- Avoid early intubation that is based solely on oxygen requirements. Allow “permissive hypoxemia” as tolerated.
- Intubate only if patient demonstrates excessive work of breathing.
- Utilize “prone positioning” to help improve oxygen saturation.