

**RWJ Somerset COVID-19 Treatment Guidance (DRAFT)**

Note this document is not static and constantly evolving as more data regarding SARS-CoV-2 emerges. Suspected and confirmed cases should be placed in isolation, in single private rooms. If a suspected case is confirmed, consider placing patient in rooms with other diagnosed patients. This document does not obviate the need for clinical judgement and is only meant to provide guidance.

Current as of 3/16/2020.

1. We recommend the following consults/contacts for all positive and suspected cases of COVID-19
  - a. Infectious diseases consult
  - b. Infection control
  - c. Critical care team
  - d. Pulmonary
2. We recommend antiviral therapy in patients with a positive SARS-CoV PCR test and in patients who present with signs and symptoms consistent with COVID-19. Note, treatment should be reserved for patients where suspicion for COVID-19 is high and risk factors for disease progression are present.
  - a. Suspicion for COVID-19
    - i. Contact with a confirmed case
    - ii. High-risk travel history
    - iii. Clinical presentation (fever, dry non-productive cough, dyspnea, ground glass consolidations on CT Chest)
      1. In an observational study from Wuhan, China the following variables were significantly associated with worse outcomes in a multivariable model
        - a. Increasing age
        - b. SOFA score
        - c. D-dimer > 1 mcg/mL
  - b. Risk factors for disease progression
    - i. Age > 55 years
    - ii. Immunocompromised
    - iii. Significant comorbidities
      1. Diabetes
      2. Pulmonary disease
      3. Cardiovascular disease
  - c. Additional labs of interest in documented case series include
    - i. Normal range WBC
    - ii. Abnormal LDH
    - iii. Normal PT, INR and Normal Procalcitonin
3. In patients with mild disease without risk factors for progression antiviral therapy may not be warranted. Consider discharge and strict isolation.
  - a. Provide adequate instructions for isolation.
4. Optimize treatment for all chronic diseases where possible, especially for those with cardiovascular disease. Consider the initiation of atorvastatin 40 -to- 80 mg daily for those patients with cardiac disease and in all patients unless a specific contraindication or intolerance is present. This suggestion is based on observational data suggesting lower mortality in patients with Middle East Respiratory Syndrome infection, another coronavirus related illness, treated with statins.
5. In patients with moderate or severe disease with risk factors for disease progression

- a. Hydroxychloroquine 400 mg twice daily x 2 doses, then 200 mg twice daily for a minimum of 4 days. Consider prolongation of therapy based on patient status/response.
  - i. Initiate in all patients meeting criteria.
- b. Remdesivir, an investigational therapy, may be obtained for compassionate use via <http://rdcvu.gilead.com/>. Not all patients with COVID-19 are eligible for compassionate use. The minimum requirements include:
  - i. Hospitalization
  - ii. PCR confirmed SARS-CoV-2
  - iii. Mechanical ventilation

Patients with the following conditions are not eligible for remdesivir compassionate use:

- i. Multiorgan failure
  - ii. On vasopressors for blood pressure support
  - iii. Alanine aminotransferase (ALT) greater than 5 times upper limit of normal
  - iv. Creatinine clearance < 30 mL/min
  - v. Dialysis (hemodialysis, peritoneal dialysis, renal replacement therapy)
- c. Other therapies that may be considered depending on patient response and presentation
    - i. Critically ill patients with severe pulmonary complications, elevated IL-6 associated with worse outcomes. Therefore, anti-IL-6 therapy may provide benefit.
      1. Tocilizumab may be considered at a dose of 8 mg/kg for patients weighing more than 30 kg and 12 mg/kg for patients more than 30 kg. The maximum single dose is 800 mg. ([NCT04306705](#))
        - a. May give up to 3 doses a minimum 8 hours apart if improvement does not occur after the first dose.
    - ii. Complement activation may result in significant damage to membranes. Disproportionate response to the virus by the immune system may result in increased complement activity; therefore, inhibition of the complement cascade may provide benefit.
      1. Eculizumab 900 mg IV for 7 days for 4 weeks, then 1200 mg on the 5<sup>th</sup> week and every 14 days thereafter until recovery. (compassionate use; [NCT04288713](#))
    - iii. Patients with low serum immunoglobulin G concentration (<400 mg/dL)
      1. Consider intravenous immune globulin G replacement 1 gram/kg x 2 doses
    - iv. Refractory patients
      1. Clinicians may consider adding the following therapies; however, data are limited
        - a. Alpha-interferon
        - b. Lopinavir/ritonavir
        - c. Ribavirin
      2. Therapies with some data (in vitro, animal studies, human studies) may be found at [www.drugsvirus.info](http://www.drugsvirus.info) and selecting SARS-coV-2 in the drop down menu on the right.

#### 6. Therapies NOT recommended

- a. In general, systemic and inhaled corticosteroids should be avoided unless necessary for other conditions.
  - i. Inhaled corticosteroids may reduce local immunity and promote viral replication.
- b. Do not start ACEi/ARBs in patients not previously on these medications. SARS-CoV-2 binds to the ACE2 receptor for cellular entry. While in vitro data suggests possible benefit, there are also data suggesting harm.

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