Treatment Algorithm for SARS-CoV-2

SARS-CoV-2 (aka COVID-19) positive or strongly suspected

Is patient presently hospitalized or require inpatient management?

No

- Stay home and avoid close contact with others to minimize spread
- Drink plenty of water
- Symptomatic care for fever, cough, congestion, pain
- Avoid corticosteroids unless required for other condition (e.g. COPD exacerbation)
- If shortness of breath develops, seek medical evaluation

Yes

- Consider antibiotics for secondary bacterial pneumonia if concerned (~10% w/ COVID-19)
- Avoid corticosteroids unless indicated for separate process (e.g., septic shock, COPD, ARDS? Etc.)

Patient has any of the following AND confirmed SARS-CoV –2?

- Age ≥ 65 years
- Significant history of lung and/or heart disease
- History of transplantation (solid organ or hematologic)
- Other immunocompromising condition and/or receiving immunosuppressive medications
- Moderate to severe infection: Radiographic evidence of pneumonia requiring supplemental oxygen and/or mechanical ventilation

Supportive Care Measures

No

Clinical Status

Requiring supplemental oxygen but stable requirements

Yes

Worsening oxygen requirements, expected requirement for mechanical ventilation within 48 hrs, or immunocompromised?

Requiring Mechanical Ventilation

Antiviral therapy may be considered*

**Please contact ID and/or Antimicrobial Stewardship with questions, or if planning to start empirically while COVID-19 test still pending**

First line: Hydroxychloroquine\(^5-7\) 400mg PO BID for one day then 200mg PO BID x 4 days (total duration = 5 days)
- Pregnancy category C, human data in malaria does not show increased risk
- Caution in liver disease
- Low drug interaction potential
- Monitor for visual changes, neuropathy, QTc prolongation, and cytopenias

Second line: Lopinavir/ritonavir (LPV/r)\(^1-4, 8\) 400mg/100mg PO BID ± Ribavirin (dosing on Page 2) x 5 days
- LPV/r pregnancy category C, human data does not show increased teratogenic risk
- Ribavirin pregnancy category X
- Significant drug interaction potential with LPV/r (Overview Page 3-6)
- Monitor for QTc prolongation, liver impairment, cytopenias, and diarrhea
- PO ribavirin preferred
- Inhaled ribavirin discouraged, consideration with ID and ID pharmacy

Third line: Nitazoxanide\(^6\) 1,000mg PO BID x 5 days

*Agents are not approved for CoV infections, and limited evidence supports possible benefit in COVID-19 infection, weigh risks and benefits prior to initiation. Data is rapidly evolving with therapeutics for COVID-19 and recommendations are subject to change rapidly. Please refrain from printing this document.
 Ribavirin (PO) – Treatment of SARS-CoV-2 Pneumonia (round to closest 200mg interval)

- CrCl > 50: Load 10mg/kg (max 2g) PO once, then start 400mg (40-60kg), 600mg (61-90kg), 800mg (91-120kg), or 1000mg (>120kg) PO TID.
- CrCl 30-50: Load 10mg/kg (max 2g) PO once, then start 200mg PO TID
- CrCl < 30/HD: Load 10mg/kg (max 2g) PO once, then 200mg PO qday (limited data)
  **For lung transplant, omit loading dose and start 15-20mg/kg/day in 3 divided doses**

In Depth Drug Interactions Website: http://www.covid19-druginteractions.org/

**References:**