Therapeutic Management of Hospitalized Adults With COVID-19◊

COVID + and

Severe disease (SpO_2 < 94% on room air; requiring supplemental O_2)

Dexamethasone 6mg PO or IV daily for 10 days or until off O_2 or discharge

and

Remdesivir

200mg IV day 1,
100mg IV days 2-5

Deterioration

COVID + and Oxygen requirement at >6 LPM O_2 or FiO_2 > 0.5 or mechanical ventilation (IMV)

Dexamethasone 6mg PO or IV daily for 10 days or until off O_2 or discharge

and

If ≤ 7 days in hospital or nosocomial COVID with ≤ 7 days of symptoms:

Tocilizumab[d]

400mg single dose IV given within 24h of start of IMV

or

If tocilizumab unavailable:
Baricitinib[d]

4mg PO daily[c] x 14 days or until discharge

or

Sarilumab[d]

400mg single dose IV given within 24h of start of IMV

Incidental or Nosocomial COVID with symptoms
- If ≤ 7 (sotrovimab ≤ 5) days of symptoms and meets outpatient criteria[a] :

- **Remdesivir** 200mg IV day 1, 100mg IV days 2-3
- **ONLY if confirmed to NOT have the Omicron BA.2: Sotrovimab**[b] 500mg single dose IV

ANTICOAGULATION: In moderately sick hospitalized COVID-19 patients (requiring oxygen up to 15 L/min via nasal cannula) with no contraindications to anticoagulation and low bleeding risk, therapeutic dose tinzaparin (175 u/kg) is recommended for 14 days or until discharge, to increase the probability of survival until hospital discharge and reduce the need for ICU-level organ support. In critically ill hospitalized COVID-19 patients with no contraindications to anticoagulation, prophylactic dose tinzaparin (75 u/kg) is recommended.

Created and maintained by the AHS COVID-19 Therapeutics Working Group.

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Footnotes

◊ Blue/red arms reflect the need for oxygen or ventilation **related to COVID**.

a. Outpatient criteria:
   - Immunocompromised, or
   - 0-1 dose of 2-dose vaccine and:
      - Age 55 and over (or age 45 and over if Indigenous), regardless of comorbidities
      - Age 18 and over with at least one of the following comorbidities:
         i. Diabetes requiring medication
         ii. Obesity (BMI > 30 kg/m2)
         iii. Chronic kidney disease (eGFR < 60 mL/min/1.73 m2)
         iv. Congestive heart failure (New York Heart Association class II, III, or IV)
         v. Chronic obstructive pulmonary disease
         vi. Moderate-to-severe asthma
      - Pregnancy

b. Wait 90 days after administration of sotrovimab for COVID vaccination.

c. Adjust baricitinib dose based on eGFR:
   - 30 to < 60 mL/min/1.73 m2: 2 mg PO/NG once daily
   - 15 to < 30 mL/min/1.73 m2: 2 mg PO/NG every other day
   - <15 mL/min/1.73 m2: Use is not recommended.

d. Active highly suspect or proven non-COVID infections and severe underlying immunocompromise are relative contraindications to receipt of tocilizumab, baricitinib, sarilumab. Specialist consultation is suggested in these cases.

   If patient meets tocilizumab / baricitinib / sarilumab criteria at presentation, favour one of these agents over remdesivir. If an immunocompetent patient has met criteria for, and been given tocilizumab / baricitinib / sarilumab, the presumption is that they are in a phase of their illness where remdesivir has not been proven beneficial, would not be expected to yield benefit, and should not be used.

   Only one of baricitinib / sarilumab / tocilizumab should be used in the same patient; they all work on the same inflammatory pathway, they are unlikely to have added benefit and, and are potent immunosuppressants, so combination use could have adverse effects.