

**POCKET GUIDE FOR INPATIENT COVID-19 CARE
ADULT PATIENTS**

Loma Linda University Medical Center

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NON-INTUBATED PATIENT:

- 1) For acute care admission, use Order Set “COVID Gen Med Acute Intermediate Orders – ADULT”. Also useful are Order Set “COVID Initial Labs – ADULT”, and “COVID Daily Labs – ADULT”.
- 2) If SpO₂ < 94% on room air, initiate oxygen by standard nasal cannula. Facemask (FM) or non-rebreather (NRB) can be used as a supplement if needed.
- 3) Transition to high-flow nasal cannula (HFNC) 20 to 40 L/min, in patients with a) respiratory rate > 25 and/or excessive work of breathing, and b) requiring > 10 L oxygen to maintain SpO₂ 90-96%.
- 4) Patient should go to ICU if requiring HFNC at 40 L/min and FiO₂ 80-100%.
- 5) Avoid BiPAP if on the general ward. If patient has ARDS (significant bilateral infiltrates on CXR without heart failure), BiPAP will likely NOT be effective. Intubate if signs of excessive work of breathing and hypoxemia that is refractory to oxygen supplementation and/or encephalopathy.
- 6) Encourage self-proning. Emphasize to patient that this is the best thing they can do. Use SmartPhrase “.SELFPRONING” (from Bryant Nguyen’s account) in a Nursing Communication.
- 7) If SpO₂ < 94% on room air and within 10 days of symptom onset – **Remdesivir** (200 mg IV x 1 followed by 100 mg IV daily for 5 days or until hospital discharge) for CrCl > 30 ml/min and LFT < 10x normal. Use Medication Order “Remdesivir Commercial Product Panel”, write in “Approved by Dr. Guerrero”. Then consult infectious disease for “Remdesivir”.
- 8) If SpO₂ < 94% and requiring supplemental oxygen – **Dexamethasone** 6 mg IV/PO daily x 10 days. Consider 6 mg bid and/or continuing beyond 10 days if increasing CRP, ferritin, and decreasing fibrinogen.
- 9) Consider antibiotics if superimposed bacterial pneumonia is suspected (Procalcitonin > 0.5 ug/L and consolidation on CXR). **Bacterial co-infection is rare.**
- 10) Use metered-dose inhaler and avoid nebulizer to minimize aerosolization.
- 11) DVT prophylaxis. Every patient needs either Lovenox 40 mg SQ daily or Heparin 5000 units SQ Q8h.
- 12) Consider full therapeutic anticoagulation if highly suspecting PE/DVT and unable to confirm with imaging studies. Clinical criteria may include:
 - Male, presence of a microvascular disease equivalent (CAD, DM, chronic renal failure, h/o CVA, etc)
 - Clinical suspicion of a thrombotic event (sudden cardiac or respiratory deterioration not easily explained, rising troponin, D-dimer, CRP, ferritin, and decreasing fibrinogen)
 - Presence of central venous catheter
 - Renal replacement therapy
 - No contraindication to anticoagulation
- 13) Review advanced directives, identify surrogate medical decision makers, and establish goals of care upon admission.
- 14) Case management consult on Day #1 if requiring 5 L NC or more. Discharge with home oxygen when NC < 3 L. Patient to quarantine for 20 days after symptom onset.

INTUBATED PATIENT:

- 1) For ICU admission, use Order Set “CCC General Orders”. Also useful are Order Set “COVID Initial Labs – ADULT”, and “COVID Daily Labs – ADULT”.
- 2) Use low tidal volume targeting plateau pressure < 30 cm H₂O. Use the “ARDS Protocol”.
- 3) **Dexamethasone** 6 mg IV/PO daily x 10 days. Consider 6 mg bid and/or continuing beyond 10 days if increasing CRP, ferritin, and decreasing fibrinogen.

- 4) Complete course of **Remdesivir** if it was initiated prior to intubation.
- 5) Consider antibiotics if superimposed bacterial pneumonia is suspected (Procalcitonin > 0.5 ug/L and consolidation on CXR). **Bacterial co-infection is rare.**
- 6) Proning if PaO₂:FiO₂ < 150. Use Order Set “ARDS Proning/Supine Orders – ADULT”. Select “RotoProne Specialty Bed” or “Manual Prone”.
- 7) Consider nitric oxide, start with 10 ppm, increase by 5 ppm to 20 ppm. Higher dose > 20 ppm is unlikely effective.
- 8) DVT prophylaxis. Every patient needs either Lovenox 40 mg SQ daily or Heparin 5000 units SQ Q8h.
- 9) Consider full therapeutic anticoagulation if highly suspecting PE/DVT and unable to confirm with imaging studies. Clinical criteria may include:
 - Male, presence of a microvascular disease equivalent (CAD, DM, chronic renal failure, h/o CVA, etc)
 - Clinical suspicion of a thrombotic event (sudden cardiac or respiratory deterioration not easily explained, rising troponin, D-dimer, CRP, ferritin, and decreasing fibrinogen)
 - Presence of central venous catheter
 - ARDS with low lung compliance
 - Renal replacement therapy
 - ECMO
 - No contraindication to anticoagulation
- 10) Review advanced directives, identify surrogate medical decision makers, and establish goals of care upon admission to ICU.
- 11) Consult palliative care.
- 12) Case management consult for discharge planning and placement on Day #5-7 after ICU admission. Discuss discharge planning with the family early.

PREGNANT PATIENT:

- 1) Early intervention with low threshold for admission.
- 2) Target SpO₂ > 95%.
- 3) Fever is associated with adverse fetal outcome. Always treat fever!
- 4) Treat the mom to treat the baby. Never withhold diagnostic imaging or life-saving treatment due to pregnancy.
- 5) If need to give steroid for fetal lung maturity AND maternal COVID, start with dexamethasone 6 mg IV Q12h x 48 h, then transition to methylprednisolone 32 mg IV/PO daily for the remaining 8 days (total of 10 days of steroid for COVID).
- 6) If need to give steroid for ONLY maternal COVID, give methylprednisolone 32 mg IV/PO daily x 10 days. NOTE: Prolonged steroid use may decrease fetal brain mass. Methylprednisolone is preferred as it does not cross the placenta.

REFERENCES:

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National Institutes of Health. Coronavirus disease 2019 (COVID-19) treatment guidelines.
<https://covid19treatmentguidelines.nih.gov/>

IDSA Guidelines on the Treatment and management of patients with COVID-19. <https://www.idsociety.org/practice-guideline/covid-19-guideline-treatment-and-management/>

DISCLAIMER:

This document is a working guide for the frontline physician. It does not supersede clinical judgment or established clinical guidelines in the management of COVID-19.