Ambulatory Management of COVID-19+ Patients

Assess Patient’s Clinical Status
Coronavirus 2019 NAA (COVID-19, SARS-CoV-2) (NMT/Transport Media) [LABCOV19]

High Risk Comorbidities
Patients with certain underlying comorbidities are at a higher risk of progressing to severe COVID-19. These comorbidities include being 65 years or older; having cardiovascular disease, chronic lung disease, sickle cell disease, type II diabetes, cancer, obesity, chronic kidney disease; being pregnant; being a smoker (current or history of); or being a recipient of a solid organ transplant.2

All COVID-19+ patients should be on isolation

Asymptomatic / Presymptomatic Infection
Individuals who test positive for SARS-CoV-2 using a virologic test (i.e., NAAT or an antigen test) but who have no symptoms that are consistent with COVID-19

Mild Illness
Individuals who have any of the various S/Sx of COVID-19: fever, cough, sore throat, malaise, headache, muscle pain, N/V/D, loss of taste and smell but no SOB, dyspnea, and/or abnormal chest imaging

Moderate Illness
Individuals who show evidence of lower respiratory disease during clinical assessment or imaging and who have saturation of oxygen (SpO2) ≥ 94% on room air

Severe/Critical Illness
Individuals who have any of the various S/Sx of COVID-19: SpO2 < 94% on room air, HR > 120, PaO2/FiO2 < 300 mm Hg, RR ≥ 24 breaths/min, lung infiltrates > 50%; moderate to severe dyspnea

Asymptomatic Management
Asymptomatic SARS-CoV-2 infection can occur, although the percentage of patients who remain truly asymptomatic throughout the course of infection is variable and incompletely defined.

It is unclear what percentage of individuals who present with asymptomatic infection progress to clinical disease.

Some asymptomatic individuals have been reported to have objective radiographic findings that are consistent with COVID-19 pneumonia.

No imaging or specific laboratory evaluations are routinely indicated in otherwise healthy patients with asymptomatic disease.

Mild Illness Management
Most mildly ill patients can be managed in an ambulatory setting (e.g., telemedicine or telephone visits).

No imaging or specific laboratory evaluations are routinely indicated in otherwise healthy patients with mild COVID-19.

Older patients and those with underlying comorbidities are at higher risk of disease progression; close monitoring recommended until clinical recovery is achieved.

Moderate Illness Management
Pulmonary disease can progress rapidly in patients with COVID-19; patients with moderate disease should be closely monitored. Consider sending patients home with a pulse oximeter for monitoring. Consider video/phone follow-up within 24-48 hrs.

Concurrent bacterial pneumonia in early mild/moderate COVID-19 infection is uncommon. If bacterial pneumonia or sepsis is suspected, administer empiric antibiotic treatment, re-evaluate the patient daily, and de-escalate or stop antibiotics if there is no evidence of bacterial infection. See bacterial pneumonia evaluation algorithm below.

Severe/Critical Management
Send to ED and/or urgent admit for inpatient treatment.

These patients may experience rapid clinical deterioration. Oxygen therapy should be administered immediately using a nasal cannula or a high-flow oxygen device.

Refer to Inpatient COVID-19 Treatment Algorithm

Not Hospitalized, Mild-Moderate COVID-19
At this time, there is insufficient data to recommend specific antiviral or antibody therapy.

Dexamethasone and other corticosteroids should not be used to treat ambulatory COVID-19 unless treating another indication.

See below for treatment options.
### Guidelines for Differentiation of Bacterial vs. Viral Pneumonia

**Supportive evidence for secondary bacterial pneumonia**

- New or recrudescent fever
- New onset or change in the character of sputum
- New leukocytosis or new neutrophilia (or both)
- New relevant imaging findings
- New or increasing oxygen requirements

**Typical radiographic features of bacterial vs. COVID-19 pneumonia:**

**Bacterial Pneumonia Radiographic Findings**

- **CXR:** lobar or segmental air-space opacification ± air bronchograms
- **CT:** segmental or lobar focal dense consolidation with or without ground-glass opacities

**COVID-19 Pneumonia Radiographic Findings**

- **CXR:** bilateral, peripheral, lower-zone predominant air-space disease
- **CT:** bilateral, predominantly peripheral ground-glass opacities, crazy paving, and consolidation; findings vary based on stage or phase of the disease

Cleveland Clinic Source: [https://www.ccjm.org/content/ccjom/87/11/659.full.pdf](https://www.ccjm.org/content/ccjom/87/11/659.full.pdf)
Guidelines: Ambulatory Management of COVID-19+ Patients
These guidelines are intended for the care of adults with COVID-19. It is not intended for pregnant patients, children or adolescents. It is intended to help clinicians, educators, case managers and patients make decisions according to standard clinical practice and to improve the care and management of COVID at Sutter Health. However, it should not replace individual clinical judgment nor specialty consultation when indicated. All clinical decisions should be made within the context of the specific situation for each patient, including current health, medications, risk of treatment side effects, quality of life, life expectancy, and patient preference.

Clinical Presentation of COVID-19
Presenting signs and symptoms of COVID-19 vary. Most persons experience fever (83–99%), cough (59–82%), fatigue (44–70%), anorexia (40–84%), shortness of breath (31–40%), myalgias (11–35%). Other symptoms include: sore throat, nasal congestion, headache, diarrhea, nausea and vomiting, loss of smell and taste.3

Quarantine and Isolation
The CDC recommends that patients who are exposed to COVID-19 quarantine for 14 days unless:
• They tested positive for the disease within the past 3 months, have recovered, and do not develop new symptoms, OR -
• They have been fully vaccinated against the disease within the last three months and are asymptomatic.

Unless severely ill or immunocompromised, patients who are infected with COVID-19 or have symptoms should isolate for:
• 10 days since symptoms first appeared and
• 24 hours afebrile without the use of antipyretics and
• Other symptoms of COVID-19 are improving

Antibody Therapies
As of March 10, 2021, according to the NIH, there are insufficient data to recommend either for or against the use of antibodies for the treatment of outpatients with mild to moderate COVID-19. Antibodies should not be considered the standard of care for the treatment of patients with COVID-19.

NOTE: At this time consideration for antibody therapy will only be for outpatients with mild/moderate COVID-19 symptoms with a BMI ≥ 35 AND/OR Age ≥ 65 and symptoms ≤ 5 days. Because monoclonal antibodies have a higher risk for escape mutants, and because emerging data suggests that certain new variants of SAR-CoV-2 may be resistant to bamlanivimab, only polyclonal antibodies are recommended and available at Sutter Health facilities. As of March 10, 2021, Casirivimab and imdevimab, a polyclonal antibody, is only available at Sutter Roseville outpatient infusion center and select hospital emergency departments. Please consult with your Sutter Health ED for availability.

• Please see the Sutter Health Guidance for COVID-19 Antibody Therapy.
Adjunctive Therapies

• **Antipyretics:** Either acetaminophen and/or NSAIDs may be used if there are no contraindications. For further detail, please see COVID-19 NSAID Know Do Share.

• **Short-acting beta agonists:** The goal is to adequately treat patients with reactive airway disease in a timely manner that is safe for healthcare workers (HCWs) and other patients. In general, the use of metered dose inhalers (MDIs) is preferred over nebulized treatments. Nebulized delivery may increase the transmission of SARS-CoV2 particles into the environment and is considered a medium-hazard aerosol generating procedure (AGP). For further detail, please see COVID-19 Bronchodilation Guidelines.

• **Antitussives:** As with other viral illnesses, a cough that is persistent and/or interferes with sleep can be managed with an over-the-counter cough suppressant (e.g., dextromethorphan) or prescription medications as indicated (e.g., benzonatate).

• **Diabetes Control:** Poorly controlled hyperglycemia increases the severity and mortality in patients with COVID-19. Patients should tightly control their blood sugar and A1c.

• **Prone Position:** Proning has been shown to be of benefit in intubated patients and is frequently used for hospitalized patients. It may provide symptomatic improvement with decreased oxygen requirement in the outpatient setting in patients with pulmonary involvement from COVID, especially while awaiting ambulance transfer to a health facility or part of terminal palliation. Pregnant patients, including those in the 2nd or 3rd trimester, may use pillows to achieve a comfortable position while proning or may lie on their side as an alternative.

Inpatient Treatments

For inpatient treatment of COVID-19 patients, refer to the COVID-19 Treatment Algorithm.

Chronic Medications

In general, patients should continue their chronic medications.

• **Angiotensin Converting Enzyme Inhibitors (ACEI) and Angiotensin II Receptor Blockers (ARB):** Per the American Heart Association, American College of Cardiology, and Heart Failure Society of America, there is not data to support adverse outcomes among COVID-19 patients using ACE-I or ARB medications in the outpatient setting. Patients currently taking ACEI or ARB should continue them after contracting COVID-19. For further detail, please see COVID-19 ACEI-ARB Know Do Share.

• **Thrombosis prevention:** Patients who are receiving anticoagulant or antiplatelet therapies for underlying conditions should continue these medications if they receive a diagnosis of COVID-19. For non-hospitalized patients with COVID-19, anticoagulants and antiplatelet therapy should not be initiated for the prevention of venous thromboembolism (VTE) or arterial thrombosis unless the patient has other indications for the therapy or is participating in a clinical trial. For post-hospitalization VTE prophylaxis and management, please see COVID-19 Anticoagulation Algorithm.

• **Non-steroidal anti-inflammatory drugs (NSAIDs):** Patients on NSAIDS for chronic diseases do not need to interrupt therapy unless clinically warranted. There is no scientific evidence that links ibuprofen/ anti-inflammatory drugs (NSAIDs) to worsening of COVID-19. For further detail, please see COVID-19 NSAID Know Do Share.

• **Inhaled Steroids:** Patients receiving chronic inhaled steroids should continue their medication.
Vaccine

When possible, we recommend spacing the COVID-19 vaccine at least 14 days apart from other vaccines in order to properly attribute vaccine side effects.

- **Influenza vaccination** is recommended for all patients for whom there is not a contraindication, however if available, a COVID-19 vaccine should take priority. Vaccination is not recommended with acute COVID illness (see [CDC guidance](https://www.cdc.gov/vaccines.html)).

- **COVID-19 vaccination**: The FDA has approved three COVID-19 vaccines under emergency use authorization (EUA): The Pfizer and Moderna vaccines use mRNA technology while the Johnson & Johnson vaccine uses an adenovirus vector. All three are considered safe and effective. The Sutter Health Vaccine Advisory Committee highly recommends that all asymptomatic employees and patients should be offered the vaccine as soon as available to them.

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### Ambulatory Treatments That Are NOT Currently Recommended

- **Steroids**: Dexamethasone and other corticosteroids should not be used to treat ambulatory COVID-19 unless treating another indication.

- **Pre-Exposure Prophylaxis** The COVID-19 Treatment Guidelines Panel recommends against the use of any agents for SARS-CoV-2 pre-exposure prophylaxis (PrEP), except in a clinical trial. At present, there is no known agent that can be administered before exposure to SARS-CoV-2 (i.e., as PrEP) to prevent infection. Clinical trials are investigating several agents. Please check [ClinicalTrials.gov](https://clinicaltrials.gov) for the latest information.

- **Antibiotic Therapy**: Bacterial co-infection is not common with otherwise healthy patients. Azithromycin or other antibiotics are not routinely indicated for patients with a positive COVID test and mild symptoms. See bacterial pneumonia evaluation algorithm above to help determine the need for antibiotic therapy for suspected bacterial co-infection.

- **Hydroxychloroquine** does not have any known benefit in the outpatient management of COVID. It is not recommended to use hydroxychloroquine or chloroquine with or without azithromycin outside of a clinical trial.

- **Ivermectin**: Sutter Health does not recommend ivermectin to treat or prevent COVID-19. You can access the current Sutter Health clinical data review on Ivermectin for COVID-19 [here](https://www.sutter.org/health-campus/about-sutter/sutter-health-news/2021/08/ivermectin-for-covid-19). You can access an FDA consumer-directed communication [here](https://www.fda.gov/consumers/consumer-updates/ivermectin-covid-19).

- **Vitamin Supplementation** There is currently no evidence to recommend the routine use of vitamin supplementation (e.g., vitamin C, vitamin D, zinc) for prevention or treatment of COVID-19 in the outpatient setting. Patients with known vitamin deficiencies should continue their supplementation.

- **Other agents** Multiple other agents including azithromycin, lopinavir/ritonavir, colchicine, famotidine and others have been suggested for use in COVID-19 outpatients, though there is inadequate evidence to support their use. The use of these agents is not recommended outside of a clinical trial.

- **Covid-19 Convalescent Plasma (CCP)** On March 9, 2021, based on data from additional studies, the FDA updated their EUA for CCP, authorizing only the use of high titer COVID-19 convalescent plasma for the treatment of hospitalized patients with COVID-19 early in the course of disease. However at this time the CCP product received from blood banks is not validated to have high titers of the neutralizing antibodies. Therefore CCP has been removed from SH guidance and is not recommended at this time. For additional information, please see [Updated FDA EUA for COVID-19 CCP](https://www.fda.gov/news-events/press-announcements/fda-updates-emergency-use-authorizations-convalescent-plasma-covid-19).
References


