Ambulatory Management of COVID-19+ Patients

Assess Patient’s Clinical Status
Coronavirus 2019 NAAT (COVID-19, SARS-CoV-2) (NMT/Transport Media) [LABCOVI19]

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, sickle cell disease, type I or II diabetes, cancer, obesity, chronic kidney, pulmonary or liver disease, dementia, Down syndrome, mental health conditions, substance use disorder, TB, being pregnant, being a smoker (current or history of), long-standing social inequities or disabilities, or being immunocompromised including HIV or a recipient of a solid organ or stem cell transplant.

All COVID-19+ patients should be on isolation precautions

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 persons with a positive antigen test should have confirmation with a molecular test.
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.

Patients who are at higher risk for progression:
- close monitoring & either oral Paxlovid™, sotrovimab or remdesivir treatment, or oral molnupiravir is recommended (further details in Treatment section 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.

Moderate Illness Management
Pulmonary disease can progress rapidly in COVID-19 patients.
Monitor closely. Consider sending patients home with a pulse oximeter & video/phone follow-up w/in 24-48 hrs.

Patients who are at higher risk for progression: close monitoring & either oral Paxlovid™, sotrovimab or remdesivir treatment, or oral molnupiravir is recommended (further details in Treatment section below).

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 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

Individuals with respiratory failure, septic shock, and/or multiple organ dysfunction

Not Hospitalized, Mild-Moderate COVID-19
Consider oral Paxlovid™, IV sotrovimab or remdesivir, or oral molnupiravir for high risk patients meeting EUA criteria.
Availability is limited. (See Treatment section below)

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

Refer to Inpatient COVID-19 Treatment Algorithm
Guidelines for Differentiation of Bacterial vs. Viral Pneumonia

Supportive evidence for secondary **bacterial** pneumonia

- Includes one or more of the following:
  1. New or recrudescent fever
  2. New onset or change in the character of sputum
  3. New leukocytosis or new neutrophilia (or both)
  4. New relevant imaging findings
  5. 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

Approximately 80% of patients with COVID-19 have mild illness that does not warrant medical intervention or hospitalization. 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 (especially with the Omicron variant), headache, diarrhea, nausea and vomiting, loss of smell and taste.

Quarantine and Isolation

- Ensure patient understands difference between quarantine and isolation.
- Quarantine guidelines differ between vaccinated and unvaccinated individuals.
- Refer to the CDC COVID-19 Quarantine and Isolation website for the most current guidelines.

Pre-Exposure Prophylaxis

Evusheld® (tixagevimab/cilgavimab) is an antibody combination that has been FDA-authorized under emergency use authorization (EUA) for pre-exposure prophylaxis of COVID-19 in adults and pediatric individuals (12 years of age and older weighing at least 40 kg). It is administered intramuscularly for patients:

- Who are not currently infected with SARS-CoV-2 and who have not had a known recent exposure to an individual infected with SARS-CoV-2 AND
- Who have moderate to severe immune compromise due to a medical condition or receipt of immunosuppressive medications or treatments and may not mount an adequate immune response to COVID-19 vaccination OR
- For whom vaccination with any available COVID-19 vaccine is not recommended due to a history of severe adverse reaction (e.g., severe allergic reaction) to a COVID-19 vaccine(s) and/or COVID19 vaccine component(s).


Supply of Evusheld® is controlled by the government and is currently very tightly allocated, so it may not yet be available at your affiliate. Pharmacy and Supply Chain are working on procurement of this PrEP option for our patients.

The Sutter Health Antibody Therapy Guidelines for Evusheld® can be found here. The EUA Fact Sheet on Evusheld® can be found here.
**Post-Exposure Prophylaxis**

Neither casirivimab/imdevimab (REGEN-COV®) or bamlanivimab/etesevimab are active against the Omicron variant. Per CDC guidance, now that the Omicron variant has reached at least 80% of cases within California, REGEN-COV® and bamlanivimab/etesevimab are no longer used, therefore currently there are no NIH, CDC or FDA-authorized or recommended medication options for post-exposure prophylaxis of COVID-19. Please see section below for COVID-19 treatments that are Currently NOT Recommended.

**TREATMENT**

The decision on which treatment to order depends on patient-specific factors, drug availability and affiliate capacity. Refer to the [COVID-19 Therapy Algorithm](#) to determine which one of the following treatments to use:

- **Antibodies (sotrovimab only)**

  The FDA has granted EUA status to sotrovimab for the early treatment of COVID-19 in non-hospitalized patients 12 years and older who are at high risk for progression to severe disease, including hospitalization or death. Sotrovimab is only approved via IV use for early treatment (within 10 days of symptom onset); it is not approved for pre or post-exposure prophylaxis.

  A tier system has been created to allow affiliates to provide therapy to patients based on capacity, logistical constraints, and/or the availability of the antibodies. The determination of the tier status is an individual affiliate-based decision.

  A. Tier 1: Full Emergency Use Authorization Criteria
  B. Tier 2 (shown below): Sutter Criteria based on literature review that identified patients who are most likely to benefit from COVID-19 antibody therapy
     a. Adult patients with at least one of the following risk factors: BMI ≥ 30, age ≥ 65, CV disease (including hypertension), diabetes, chronic lung disease, immunocompromising condition or active immunosuppressive therapy or pregnancy (any gestation age) if approved by OB
        i. Treatment of mild to moderate COVID-19 (prioritized based on available resources if necessary)
           • Symptom onset needs to be ≤ 5 days
           • Restricted to outpatient use (including ED and patients under observation status where admission for COVID-19 is not anticipated), L&D triage, hospitalized patients who are not admitted for COVID-19, and approved infusion centers
        o Use is further restricted by the FDA EUA limitations of authorized use
        o Additional exclusion criteria: Patients who are hospitalized for COVID-19

**Exclusion Criteria** for antibody therapy: Patients who are hospitalized for COVID-19 and patients who require oxygen therapy due to COVID-19 or who require an increase in baseline oxygen flow rate due to COVID-19 if already on chronic oxygen therapy due to underlying non-COVID-19 related comorbidity. Please consult with your Sutter Health ED or designated foundation clinics for availability.

For more information, see the [Sutter Health Guidance for COVID-19 Antibody Therapy](#) or consult with an infectious disease specialist.
**Oral Antiviral Therapy**

- See the Sutter Health Guidance for COVID-19 Oral Antiviral Therapy for a clinical comparison of Paxlovid™ and molnupiravir.

- **Nirmatrelvir/ritonavir (PaxlovidTM)**

  The oral antiviral nirmatrelvir/ritonavir (PaxlovidTM), authorized by the FDA on December 22, 2021, is currently the most effective option for treatment of mild to moderate COVID-19 in adult and pediatric patients (12 years of age and older, weighing at least 40kg) who have positive results of direct SARS-CoV2 viral testing, and who are at high risk for progression to severe disease, including hospitalization or death. Treatment initiated within 5 days of symptom onset demonstrated a relative risk reduction of 88%.

  A dose reduction of Paxlovid™ is required for patients with moderate renal impairment, defined as having an estimated glomerular filtration rate (eGFR) between 30mL/min - 60 mL/min. For patients who have moderate renal impairment, the dose must be reduced to 150 mg of nirmatrelvir (only one tablet) along with 100 mg of ritonavir, taken together, twice daily. Patients with severe renal impairment, defined as an eGFR below 30 mL/min, should not receive the drug. When ordering Paxlovid™ in Epic, be sure to select the correct eRX for the dose corresponding with the patient’s renal function.

  Paxlovid™ carries a long list of significant drug interactions which may require temporary modification of the patient’s existing medication regimen or, if modifications cannot be made, exclude the patient as a candidate for Paxlovid™.

- **Molnupiravir**

  Molnupiravir was authorized by the FDA on December 23, 2021 for the treatment of mild-to-moderate COVID-19 in adults (age 18 and older) who have positive results of direct SARS-CoV2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death, and for whom alternative COVID-19 treatment options authorized by the FDA are not accessible or clinically appropriate. Treatment initiated within 5 days of symptom onset demonstrated a relative risk reduction of 30%.

  Molnupiravir is not recommended for use in pregnant patients, and breastfeeding should be avoided for at least 4 days following the last molnupiravir dose. In addition, male patients of childbearing potential should practice reliable birth control for at least three months following the last molnupiravir dose.

  eRX builds are now live in Epic which allows providers to e-prescribe Paxlovid™ or molnupiravir for pick-up at a retail pharmacy. However distribution is limited and though CDPH has published a list of distribution sites, it is still not clear who is stocking them and in what quantities.

**IV Antiviral Therapy**

- **Remdesivir**

  Remdesivir is FDA-approved for the treatment of COVID-19 in hospitalized and non-hospitalized patients who are 12 years and older weighing at least 40kg. Remdesivir must be infused over a minimum of 22 minutes and the patient must be observed for one hour post-infusion.

  There are very few outpatient sites offering remdesivir; please contact your clinical pharmacy coordinator or service line director for availability and locations.
Omicron-specific guidance on therapeutic options, please see the December 30, 2021 KDS [here].

Adjunctive Therapies

- **Non-pharmacologic management:**
  - Health care providers should consider educating patients about breathing exercises, as severe breathlessness may cause anxiety.
  - Patients should be advised to drink fluids regularly to avoid dehydration.
  - Rest is recommended as needed during the acute phase of COVID-19, and ambulation and other forms of activity should be increased according to the patient’s tolerance.
  - Patients should be educated about the variability in time to symptom resolution and complete recovery.
  - Prone Position: Patients with dyspnea may benefit from resting in the prone position rather than the supine position. 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.

- **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 maintain control of their blood sugar, targeting a pre-prandial glucose of 80-130 mg/dL and, two hours after the start of a meal, <180 mg/dL.

Chronic Medications

In general, patients should continue their chronic medications.

- **Angiotensin Converting Enzyme Inhibitors (ACEI) and Angiotensin II Receptor Blockers (ARB):** Patients with COVID-19 who are receiving angiotensin-converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) for cardiovascular disease (or other non-COVID-19 indications) should continue these medications unless discontinuation is otherwise warranted by their clinical condition. The NIH recommends against the use of ACE inhibitors or ARBs for the treatment of COVID-19, except in a clinical trial. 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 unless
discontinuation is otherwise warranted by their clinical condition.

**Vaccines**

- **Influenza vaccination** is recommended for all patients for whom there is not a contraindication. If the patient is due to receive both influenza vaccine and a COVID-19 vaccine, they may be administered at the same time. Vaccination is not recommended with acute COVID illness (see [CDC guidance](https://www.cdc.gov/coronavirus/2019-ncov/vaccination.html)).

- **COVID-19 vaccination**: The FDA has approved three COVID-19 vaccines. *mRNA vaccines should be utilized over the Janssen vaccine.*

  - **Pfizer/BioNTech (Comirnaty®)** – Full FDA approval for primary 2-dose series 21 days apart for ages ≥ 16
    - Also approved under emergency use authorization (EUA):
      - Primary 2-dose series for individuals age 5-15, 21 days apart
      - Additional dose for immunocompromised individuals ages 5 and older, 28 days after 2°d dose (see below)
      - One booster dose 5 months after completion of mRNA series or 2 months after Janssen vaccine for ages 12+

  - **Moderna** – Not fully FDA approved
    - Approved under EUA for patients ≥ 18 y/o:
      - Primary 2-dose series 28 days apart
      - Additional dose for immunocompromised individuals 28 days after 2°d dose (see below)
      - One booster dose 5 months after completion of mRNA series or 2 months after Janssen vaccine,

  - **Johnson & Johnson** – Not fully FDA approved. *[mRNA vaccines are preferred]*
    - Authorized under EUA for patients ≥ 18 y/o:
      - Primary single-dose vaccination
      - One booster dose 6 months after completion of mRNA series or 2 months after Janssen vaccine

- **Adenovirus vector:**
  - **Johnson & Johnson** – Not fully FDA approved. *[mRNA vaccines are preferred]*
    - Authorized under EUA for patients ≥ 18 y/o:
      - Primary single-dose vaccination
      - One booster dose 6 months after completion of mRNA series or 2 months after Janssen vaccine

**Vaccine Safety**: All three COVID-19 vaccines are considered safe and effective, though the mRNA vaccines carry a warning for rare risk of myocarditis or pericarditis, and the J&J vaccine carries a warning for risk of rare but serious blood clots and thrombocytopenia as well as Guillain-Barré Syndrome. The Sutter Health Vaccine Advisory Committee highly recommends that, with the exception of patients who have received antibody PEP within 30 days or who have received antibody treatment within the last three months, or for patients with a contraindication to COVID-19 vaccines, all asymptomatic employees and patients not in isolation for COVID-19 disease should be offered the vaccine.

  - CDC contraindications to COVID-19 vaccines are as follows:
    - Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of the COVID-19 vaccine
    - Immediate allergic reaction of any severity to a previous dose or known (diagnosed) allergy to a component of the vaccine
- **Coadministration:** COVID-19 vaccines may be administered without regard to timing of other vaccines. This includes simultaneous administration of COVID-19 vaccine and other vaccines on the same day. It is not known if the reactogenicity of COVID-19 vaccines is increased with coadministration, including with other vaccines known to be more reactogenic, such as adjuvanted vaccines. When deciding whether to administer an(other) vaccine(s) with a COVID-19 vaccine, vaccination providers should consider whether the patient is behind or at risk of becoming behind on recommended vaccines, their risk of vaccine-preventable disease (e.g., during an outbreak or occupational exposures), and the reactogenicity profile of the vaccines.

If multiple vaccines are administered at a single visit, administer each injection in a different injection site. For adolescents and adults, the deltoid muscle can be used for more than one intramuscular injection administered at different sites in the muscle.

- With a few exceptions, timing of COVID-19 vaccine with immunomodulatory and oncolytic drugs requires no changes. Please see the [COVID-19 Vaccine Administration in Immunosuppressed patients KDS](#) for more detail and exceptions.

- An **additional dose** of an mRNA COVID-19 vaccine ≥ 28 days after an initial 2-dose primary mRNA COVID-19 vaccine series should be considered for people 5 years and older with moderate to severe **immune compromise** due to a medical condition or receipt of immunosuppressive medications or treatments. This is not considered a booster dose, but rather part of the primary series. The conditions and treatments include but are not limited to:
  - Active treatment for solid tumor and hematologic malignancies
  - Receipt of solid-organ transplant and taking immunosuppressive therapy
  - Receipt of CAR-T-cell or hematopoietic stem cell transplant (within 2 years of transplantation or taking immunosuppression therapy)
  - Moderate or severe primary immunodeficiency (e.g., DiGeorge or Wiskott-Aldrich syndrome)
  - Advanced or untreated HIV infection
  - Active treatment with high-dose corticosteroids (i.e., ≥20mg prednisone or equivalent per day), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, tumor-necrosis (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory.
  - Currently an extra dose of the J&J vaccine is not authorized for immunocompromised individuals.

- **Booster doses** should be administered as indicated above.

- **Booster doses for patients who were vaccinated outside the US:**

  - For patients who were **vaccinated with a WHO-EUL authorized vaccine:**
    - Pfizer-BioNTech COVID-19 Vaccine (e.g., BNT162b2, COMIRNATY, Tozinameran)
    - AstraZeneca-Oxford COVID-19 Vaccine (e.g., [ChAdOx1-S (recombinant)], AZD1222, Covishield, Vaxzevria)
    - Janssen (Johnson & Johnson) COVID-19 Vaccine (e.g., Ad26.COV2.S)
    - Moderna COVID-19 Vaccine (e.g., mRNA 1273, Takeda, Spikevax)
    - Sinopharm-BIBP COVID-19 Vaccine
    - Sinovac-CoronaVac COVID-19 Vaccine
    - Bharat Biotech International COVID-19 Vaccine (e.g., BBV152, COVAXIN)
    - Novavax COVID-19 Vaccine (e.g., NVX-CoV2373, Covovax)

  - People who completed **all** of the recommended doses of any of the above vaccines
    - Are considered fully vaccinated
    - **Immunocompromised aged ≥5 years:** Should receive an additional primary dose of *Pfizer-BioNTech COVID-19 vaccine only* at least 28 days after receiving the second vaccine dose of their primary series.
• **Booster aged ≥12 years:** should receive a single booster dose of *Pfizer-BioNTech COVID-19 vaccine* only at least 6 months after completing their primary series

  - People who received only the first dose of a multidose WHO-EUL COVID-19 vaccine primary series:

    • Should be offered primary vaccination with an FDA-approved or FDA-authorized COVID-19 vaccine (i.e., 2-dose mRNA series or, if mRNA not available or contraindication to mRNA vaccine, single Janssen dose), with a minimum interval of at least 28 days since receipt of the last dose of a non-FDA-approved/authorized vaccine

    • Are *not* recommended for additional or booster doses thereafter.

**Covid-19 Convalescent Plasma (CCP):**

- COVID Convalescent Plasma (CCP) is only authorized for use in hospitalized patients.

- See [this link](#) for the Sutter Health guidelines on CCP.

**Tocilizumab**

- Tocilizumab is only authorized for use in hospitalized patients who are on systemic corticosteroids and respiratory support.

**Baricitinib**

- Baricitinib is only authorized for use in hospitalized patients.

**Inpatient Treatments**

- For inpatient treatment of COVID-19 patients, refer to the [COVID-19 Treatment Algorithm](#).
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**
  - With the exception of Evusheld® (tixagevimab/cilgavimab), no other therapies have been authorized for pre-exposure prophylaxis of COVID-19. Please see PrEP section above for information on Evusheld®.
  - **For clinical trials on additional PrEP treatments,** please check [ClinicalTrials.gov](https://clinicaltrials.gov).

- **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.

- **Other agents** (see NIH Guidelines for most current recommendations)
  - Based on NIH guidelines, Sutter Health recommends **against** the use of the following to treat COVID-19:
    - Chloroquine or hydroxychloroquine, either to treat COVID-19 or for post-exposure prophylaxis, with or without azithromycin
    - Colchicine (in hospitalized patients)
    - ACE Inhibitors and ARBs
    - Statins
    - Famotidine
    - Protease inhibitors (lopinavir/ritonavir)
    - IVIG (except to treat specific complications from COVID-19)
  - According to the NIH, there is insufficient evidence to recommend either for or against the use of the following to treat COVID-19:
    - Colchicine for non-hospitalized patients with COVID-19
    - Fluvoxamine (see [Sutter Health Fluvoxamine Evidence Review](https://www.sutterhealth.org/fluvoxamine) for more info)
    - Ivermectin - Professional organizations universally recommend **against** the use of ivermectin for COVID-19 outside of the context of a clinical trial, including:
      - [Infectious Disease Society of America](https://www.idsociety.org/)
      - [American Medical Association](https://www.ama-assn.org/)
      - [American Pharmacists Association](https://www.pharmacist.com/)
      - [American Society of Health-System Pharmacists](https://www.ashp.org/)
      - [Centers for Disease Control and Prevention (CDC)](https://www.cdc.gov/)
      - The WHO, NIH and Merck (the manufacturer of Stromectol®) all state there is insufficient evidence to support the use of ivermectin to treat COVID-19.
    - Sutter Health clinical data review on Ivermectin for COVID-19 [here](https://www.sutterhealth.org/ivermectin).
    - FDA consumer-directed communication [here](https://www.fda.gov/)
    - Vitamin C
    - Vitamin D
    - Zinc. NIH recommends **against** using zinc supplementation above the recommended dietary allowance for the prevention of COVID-19, except in a clinical trial.
    - Interferon beta for mild/moderate COVID-19 within 7 days from symptom onset
References


