Adult Outpatient COVID-19 Treatment Overview
May 12, 2022
Southern Illinois Healthcare (SIH)

Resources
Recommendations for the outpatient treatment of adults with mild to moderate COVID-19 continue to evolve. All guidelines are subject to change and should be checked routinely for updates.

Supply of outpatient treatments for mild to moderate COVID-19 has been variable. Resources from the NIH and IDPH include guidance on identifying patients most at risk of progressing to severe disease when supply is limited.

Useful resources include:

- The National Institutes of Health (NIH) provides COVID-19 treatment guidelines that are updated regularly.
- The Illinois Department of Public Health (IDPH) has an overview of outpatient treatments on their website.
- The CDC includes information on underlying conditions that place patients at higher risk for severe COVID-19 along with additional guidance.
- The Department of Health and Human Services/ASPR offers a quick reference for therapies authorized or approved to prevent or treat mild to moderate COVID-19, an outpatient therapeutics decision aid, as well as additional information on COVID-19 therapeutics.

The primary resources for each medication available through an EUA are the EUA documents for that medication.

Emergency Use Authorizations (EUA)
As new medications have become available for the treatment of COVID-19, most have been released under an EUA rather than full FDA approval. The EUA for each medication includes specific criteria that must be met for the use of the drug. EUAs require that the patient is educated about the drug that is prescribed for them and that they receive and understand the Fact Sheet for Patients, Parents, and Caregivers specific to that medication. Since EUA medications are not FDA approved, SIH includes consent as part of the ordering process.

NIH Guidance for Adults Not Requiring Hospitalization or Supplemental Oxygen

- Preferred therapies (in order of preference): Ritonavir-boosted Nirmatrelvir (Paxlovid), Remdesivir.
- Alternative therapies (for use only if preferred therapies are not available, feasible, or clinically appropriate): Bebtelovimab, Molnupiravir.

Treatment availability through SIH
- Paxlovid is orderable through Epic for SIH providers but is only available at outpatient pharmacies as stock is received through governmental distribution. Drug information is highlighted below; please see appropriate resources for complete information prior to prescribing.
- Bebtelovimab is a monoclonal antibody for outpatient injection. Bebtelovimab is available for administration through SIH as supplies allow. Please see complete information prior to prescribing.

Not available for treatment through SIH
- Sotrovimab – No longer authorized in the United States due to proportion of COVID-19 cases caused by the Omicron BA.2 variant.
- Outpatient Remdesivir - SIH currently has no effective capacity to administer a three-day course of daily IV Remdesivir in the ambulatory setting.
- Molnupiravir - The position of SIH is that Molnupiravir should not be considered for patient treatment and is not orderable through Epic due to the following concerns: limited efficacy and significant safety concerns (risks outweigh benefit); long term mutagenicity and need for contraceptive practices (9 days for females, 3 months for males). Molnupiravir is available through local outpatient pharmacies.

Prophylaxis

- Evusheld (Tixagevimab plus Cilgavimab) is a pre-exposure option for patients who cannot be vaccinated or are unlikely to mount an immune response with vaccination. Evusheld is available through SIH as supplies allow. Please see appropriate resources for complete information.

Antiviral Resistance

Please refer to current guidance on antiviral resistance as new variants emerge.

The EUAs for COVID therapies now include language that authorization for use will change based on the patterns of resistance as new variants emerge. The FDA updates any changes in authorized geographic areas here.

Highlights of Drug Information See Complete EUAs, Resistance Patterns, and Treatment Guidelines Prior to Prescribing		
Therapeutic agent	**Notes**	**SIH Ordering and Consent Process**
Paxlovid **Ritonavir-boosted Nirmatrelvir** Oral antiviral combination available through EUA for outpatient treatment of mild to moderate COVID-19 Refer to the EUA Fact Sheet for Health Care Providers for complete information prior to prescribing. The FDA has released a Paxlovid eligibility screening checklist to help with clinical decision making.	◦Available at outpatient pharmacies ◦Serious drug-drug interactions are possible. Before prescribing Paxlovid, be familiar with the drug interactions as listed in the EUA and consider additional guidance from the NIH as well. Ritonavir-Boosted Nirmatrelvir (Paxlovid)	COVID-19 Treatment Guidelines (nih.gov) Consider expert consultation as necessary. ◦ A thorough medication history is necessary, including over-the-counter and herbal medications, to avoid the potential for serious drug interactions. ◦ Initiate within 5 days of symptom onset ◦ Dose adjustment required for patients with moderate renal impairment, eGFR 30 to less than 60 ml/mi. Not recommended for patients with an eGFR less than 30 ml/min.	◦Orderable in Epic through order set with EUA criteria including confirmation of drug interaction review and documentation of patient education and consent. ◦Confirmation of verbal consent is built into Epic ordering process
Bebtelovimab IV monoclonal antibody available through EUA for outpatient treatment of mild to moderate COVID-19. Fact Sheet	◦ Administer within 7 days of symptom onset	◦Orderable in Epic or by contacting 618-684-3156 ext. 55315 for patients 18 and older who meet criteria. ◦Order set includes documentation of EUA criteria and consent. ◦Verbal consent is part of the ordering process. Patient signs consent at time of administration. ◦Appointments available at St. Joseph's Infusion Center. Infusion Scheduler will set up appointment with patient once order is placed.

Evusheld **Tixagevimab with Cilgavimab** Monoclonal antibody injection available through EUA for preexposure prophylaxis in patients who cannot be vaccinated or are not expected to mount an effective immune response to vaccination due to a medical condition or immunosuppressive medication. Fact Sheet	◦Patient must be COVID negative and have no recent exposure ◦ Evusheld is not authorized for the treatment of COVID-19 or for post-exposure prophylaxis. ◦Evusheld should not take the place of vaccination in patients for whom vaccination is recommended. ◦ Cardiovascular events have been reported with Evusheld; risks and benefits to therapy should be considered. ◦Caution is advised in patients with thrombocytopenia or other coagulation disorder.	◦Orderable in Epic or by contacting 618-684-3156 ext. 55315 for patients 18 and older who meet criteria. ◦Order set includes documentation of EUA criteria and consent. ◦Verbal consent is part of the ordering process. Patient signs consent at time of administration. ◦Appointments available at the SIH Cancer Center and St. Joseph's Hospital Infusion Center. Infusion Scheduler with set up time with patient once order is placed.
Sotrovimab Monoclonal antibody infusion available through EUA for outpatient treatment of mild to moderate COVID-19. Fact Sheet	◦Efficacy is decreased with Omicron BA.2 variant and is not authorized in areas where BA.2 is predominant ◦ Administer within 7 days of symptom onset	Not orderable through SIH due to incidence of Omicron BA.2 variant
Remdesivir IV antiviral medication with a three-day dosing regimen for outpatient treatment of mild to moderate COVID-19.	Not available for outpatient treatment at SIH due to logistical concerns ◦Available for inpatient use at SIH for moderate to severe COVID-19	Not orderable for outpatient use within SIH Epic
Molnupiravir Oral antiviral available through EUA for outpatient treatment of mild to moderate COVID-19.	Not recommended by SIH due to efficacy and safety concerns	Not orderable within SIH Epic

References:

1.FDA. *FDA updates sotrovimab emergency use authorization.* March 30, 2022. Available at FDA updates Sotrovimab emergency use authorization | FDA

2. FDA. Emergency Use Authorizations. Available at Emergency Use Authorization | FDA

3.NIH. Therapeutic Management of Nonhospitalized Adults with COVID-19. April 1, 2022. Available at: Nonhospitalized Adults: Therapeutic Management | COVID-19 Treatment Guidelines (nih.gov)

4.IDPH. *Overview of monoclonal antibody and oral antiviral medications for COVID-19 Made Available Under Emergency Use Authorization for Non-hospitalized Patients.* Updated 2-22-2022. Accessed 3-8-2022. Available at: [COVID-19 Outpatient Treatment (illinois.gov)](COVID-19 Outpatient Treatment)

5. NIH. The COVID-19 Treatment Guidelines Panel's Statement on the Role of Bebtelovimab for the Treatment of High-Risk, Nonhospitalized Patients with Mild to Moderate COVID-19. March 2, 2022. Available at: [Statement on Bebtelovimab | COVID-19 Treatment Guidelines (nih.gov)](Statement on Bebtelovimab)

6.FDA. Paxlovid Fact Sheet for Health Care Providers [Fact Sheet].

7.Gilead. Remdesivir (Veklury) Prescribing Information 2020.

8.FDA. Sotrovimab Fact Sheet for Health Care Providers [Fact Sheet].

9.FDA. Molnupiravir Fact Sheet for Health Care Providers [Fact Sheet].

10.FDA. Bebtelovimab Fact Sheet for Health care Providers [Fact Sheet].