Adult Outpatient COVID-19 Treatment Overview
January 2023
Southern Illinois Healthcare

The Department of Health and Human Services/ASPR has an Outpatient Therapeutics Decision Aid available as seen below to help guide appropriate outpatient treatment. Available at: COVID-19 Therapeutics Decision Aid (hhs.gov)
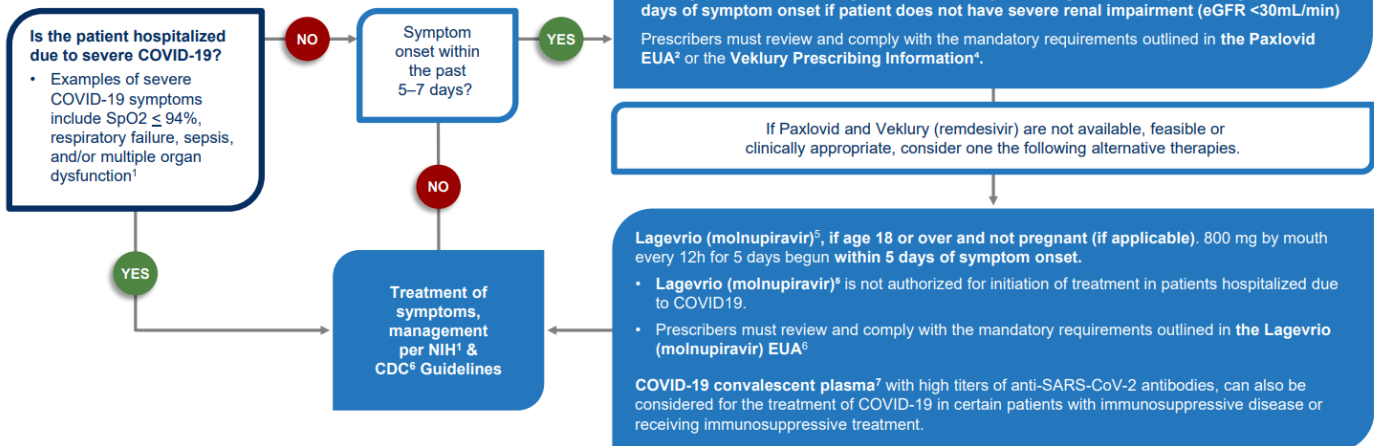
DEC 2022

COVID-19 Outpatient Therapeutics

Clinical Decision Aid for Ages 12+ years

Adult or pediatric patients (ages 12 and older* weighing at least 40 kg) with mild to moderate COVID-19 and at high risk for progression to severe disease

* Age requirement does not apply for Veklury (remdesivir)

Is the patient hospitalized due to severe COVID-19?
- Examples of severe COVID-19 symptoms include SpO2 ≤ 94%, respiratory failure, sepsis, and/or multiple organ dysfunction[1]

NO → **Symptom onset within the past 5–7 days?**

YES → Consider one of the following therapeutics, if clinically appropriate and feasible[1]:

Paxlovid[2] within 5 days of symptom onset if patient does not have severe renal impairment (eGFR <30mL/min) OR severe hepatic impairment (Child-Pugh Class C)

- eGFR ≥ 60mL/min: 300 mg nirmatrelvir taken with 100 mg ritonavir twice daily for 5 days
- eGFR ≥ 30mL/min to < 60 mL/min: 150 mg nirmatrelvir taken together with 100 mg ritonavir twice daily for 5 days
- Evaluate concomitant use of CYP3A inducers and medications with high dependency on CYP3A for clearance as these may be contraindicated[2,3]

OR

Veklury (remdesivir)[4] 200 mg IV x 1 dose on Day 1, 100 mg IV x 1 on Days 2–3 begun **within 7 days of symptom onset** if patient does not have severe renal impairment (eGFR <30mL/min)

Prescribers must review and comply with the mandatory requirements outlined in **the Paxlovid EUA[2]** or the **Veklury Prescribing Information[4]**.

If Paxlovid and Veklury (remdesivir) are not available, feasible or clinically appropriate, consider one the following alternative therapies.

Lagevrio (molnupiravir)[5], if age 18 or over and not pregnant (if applicable). 800 mg by mouth every 12h for 5 days begun **within 5 days of symptom onset.**

- **Lagevrio (molnupiravir)[5]** is not authorized for initiation of treatment in patients hospitalized due to COVID19.
- Prescribers must review and comply with the mandatory requirements outlined in **the Lagevrio (molnupiravir) EUA[6]**

COVID-19 convalescent plasma[7] with high titers of anti-SARS-CoV-2 antibodies, can also be considered for the treatment of COVID-19 in certain patients with immunosuppressive disease or receiving immunosuppressive treatment.

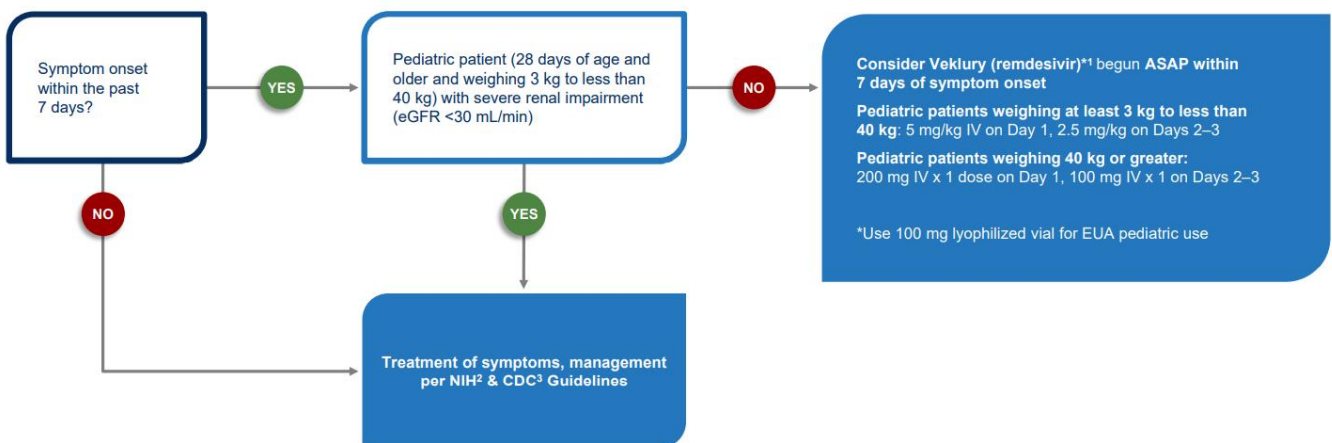YES → NO → **Treatment of symptoms, management per NIH[1] & CDC[6] Guidelines**

References:

1 NIH COVID-19 Treatment Guidelines Therapeutic Management of Nonhospitalized Adults With COVID-19. https://www.covid19treatmentguidelines.nih.gov/therapies/statement-on-therapies-for-high-risk-nonhospitalized-patients/
2 Paxlovid EUA. https://www.fda.gov/media/155050/download
3 NIH's COVID-19 Treatment Guidelines Panel: Ritonavir-Boosted Nirmatrelvir (Paxlovid). https://www.covid19treatmentguidelines.nih.gov/therapies/antiviral-therapy/ritonavir-boosted-nirmatrelvir--paxlovid-/
4 Veklury (remdesivir) Prescribing Information. https://www.gilead.com/-/media/files/pdfs/medicines/covid-19/veklury/veklury_pi.pdf
5 Lagevrio EUA. https://www.fda.gov/media/155054/download
6 CDC Covid-19 Website . https://www.cdc.gov/coronavirus/2019-ncov/index.html
7 Fact Sheet for Health Care Providers: EUA of COVID-19 Convalescent Plasma for Treatment of COVID-19. https://www.fda.gov/media/141478/download

ASPR
ADMINISTRATION FOR STRATEGIC PREPAREDNESS AND RESPONSE

DEC 2022

COVID-19 Outpatient Therapeutics

Clinical Decision Aid: Pediatric patients 28 days of age and older weighing 3 kg to less than 40 kg with mild to moderate COVID-19 and at high risk for progression to severe disease

Symptom onset within the past 7 days?

YES → **Pediatric patient (28 days of age and older and weighing 3 kg to less than 40 kg) with severe renal impairment (eGFR <30 mL/min)**

NO → **Consider Veklury (remdesivir)*[1] begun ASAP within 7 days of symptom onset**

Pediatric patients weighing at least 3 kg to less than 40 kg: 5 mg/kg IV on Day 1, 2.5 mg/kg on Days 2–3

Pediatric patients weighing 40 kg or greater: 200 mg IV x 1 dose on Day 1, 100 mg IV x 1 on Days 2–3

*Use 100 mg lyophilized vial for EUA pediatric use

NO →

YES → **Treatment of symptoms, management per NIH[2] & CDC[3] Guidelines**

Reference:

1 Veklury Prescribing Information :https://www.gilead.com/ /media/files/pdfs/medicines/covid 10/veklury/veklury_pi.pdf
2 NIH COVID-19 Treatment Guidelines Therapeutic Management of Nonhospitalized Adults With COVID-19. https://www.covid19treatmentguidelines.nih.gov/therapies/statement-on-therapies-for-high-risk-nonhospitalized-patients/
3 CDC Covid-19 Website . https://www.cdc.gov/coronavirus/2019-ncov/index.html

ASPR
ADMINISTRATION FOR STRATEGIC PREPAREDNESS AND RESPONSE

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 routinely be checked 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 [COVID-19 Treatment Guidelines (nih.gov)](#) and [Clinical Management of Adults | COVID-19 Treatment Guidelines (nih.gov)](#)

The guidelines include a section on nonhospitalized adults [Nonhospitalized Adults: Therapeutic Management | COVID-19 Treatment Guidelines (nih.gov)](#)

● The **Illinois Department of Public Health** (IDPH) has an overview of outpatient COVID treatments on their website: [COVID-19 Outpatient Treatment (illinois.gov)](#)

●The **CDC** includes information on underlying conditions that place patients at higher risk of severe COVID-19 [Underlying Medical Conditions Associated with Higher Risk for Severe COVID-19: Information for Healthcare Professionals | CDC](#) as well as additional guidance on the CDC website

●The **Department of Health and Human Services/ASPR** has a quick reference of therapeutics authorized or approved to prevent COVID-19 or treat mild to moderate COVID-19 [Side-by-Side Overview of Outpatient Therapies Authorized for Treatment of Mild-Moderate COVID-19 (hhs.gov)](#) the outpatient therapeutics decision aid as noted above [COVID-19 Therapeutics Decision Aid (hhs.gov)](#) and additional information on COVID-19 therapeutics [COVID-19 Therapeutics | HHS/ASPR](#)

●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, 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 for any EUA medication.

Treatment availability

 Paxlovid is orderable through Epic for SIH providers and is available at retail pharmacies. Drug information is highlighted below; please see appropriate resources for complete information prior to prescribing.

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.

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 at [Emergency Use Authorization | FDA](#)

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 PAXLOVID Patient Eligibility Screening Checklist Tool for Prescribers (fda.gov) ◦ Initiate within 5 days of symptom onset	◦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, such as: **Pfizer drug interaction checking tool:** Drug Interaction Checker	Pfizer Medical Information - US **Pfizer Paxlovid HCP website** PAXLOVID™ (nirmatrelvir tablets; ritonavir tablets) For HCPs (paxlovidhcp.com) **Liverpool online COVID-19 Interaction website:** Liverpool COVID-19 Interactions (covid19-druginteractions.org) **NIH:** Ritonavir-Boosted Nirmatrelvir (Paxlovid)	COVID-19 Treatment Guidelines (nih.gov) Consider expert consultation as necessary.	◦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 ◦ 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. ◦ A thorough medication history is necessary, including over-the-counter and herbal medications, to avoid the potential for serious drug interactions.
Bebtelovimab IV monoclonal antibody for outpatient treatment of mild to moderate COVID	◦**No longer authorized for use due to decreased effectiveness with current variants**	Not currently orderable through SIH
Evusheld **Tixagevimab with cilgavimab** Monoclonal antibody injection for preexposure prophylaxis in patients meeting criteria	◦**No longer authorized for use due to decreased effectiveness with current variants**	Not currently orderable through SIH
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. Emergency Use Authorizations. Available at [Emergency Use Authorization | FDA](#)

2. COVID-19 Treatment Guidelines Panel. Coronavirus Disease 2019 (COVID-19) Treatment Guidelines. National Institutes of Health. Available at https://www.covid19treatmentguidelines.nih.gov/. Accessed 1-30-2023

3.COVID-10 Treatment Guidelines Panel. Therapeutic Management of Nonhospitalized Adults with COVID-19. September 26, 2022. Available at: [Nonhospitalized Adults: Therapeutic Management | COVID-19 Treatment Guidelines (nih.gov)](#)

4. NIH. Paxlovid Drug-Drug Interactions. September 26, 2022. Available at: [Paxlovid Drug-Drug Interactions | COVID-19 Treatment Guidelines (nih.gov)](#)

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

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

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

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

9. Department of Health and Human Services -Assistant Secretary for Preparedness and Response. [COVID-19 Therapeutics Decision Aid (hhs.gov)](#) Accessed 1-30-2023