

Which COVID-19 therapy should my patient receive?

There are several options available for the treatment of non-hospitalized pediatric patients with mild to moderate COVID-19 with risk factors that place them at a [higher risk](#) of disease progression. A number of factors affect the selection of the best treatment option, including clinical efficacy and availability, feasibility of administration, hospital system resources, circulating COVID variant type, and the potential for drug-drug interactions.

The National Institutes of Health (NIH) recommends patients who are at high risk of progressing to severe disease be treated with one of the following therapeutic options, listed in order of preference.

1. Paxlovid (Ritonavir-boosted nirmatrelvir)
2. Remdesivir
3. Bebtelovimab

Paxlovid

Benefits: Paxlovid is the preferred therapy option for those 12 years and older who weight at least 40 kg as randomized placebo-controlled trials have reported high clinical efficacy in reducing hospital admission and death among people at high-risk for severe illness. It is the only oral option currently available.

Disadvantages: Paxlovid has significant drug-drug interactions, primarily due to the ritonavir component. The prescriber should check diligently for any drug-drug interactions before beginning therapy by reading the Provider Fact Sheet, which also has dosing information: <https://www.covid19oralrx-patient.com/files/Final-Emergency-Use-Full-Prescribing-Info-HCP-Fact-Sheet-COVID-19-Oral-Antiviral.pdf>. IMPORTANT NOTE FROM PHARMACY: This medication contains ritonavir, which decreases the concentration of oral contraceptives. So, if your patient is sexually active and taking OCPs, she needs to use an alternative, non-hormonal method of birth control until she would start her next OCP pack. Dose adjustment is needed for those with chronic kidney disease (EGFR 30-60) and is not recommended for those with EGFR <30. JAK inhibitors are not listed in the Provider FACT Sheet but also have drug-drug interactions.

The Patient Fact Sheet MUST be given to patients/families and can be found here: <https://www.covid19oralrx-patient.com/files/Final-EUA-Fact-sheet-for-Patients-Parents-and-Caregivers-COVID-19-Oral-Antiviral.pdf>

Paxlovid must be picked up in the main campus emergency department outpatient pharmacy (be sure to inform the family). This medication should be ordered as an outpatient prescription in EPIC. If you are unable to use Epic, you may call the emergency department pharmacy to phone in the prescription directly at 513-517-8358.

The COVID 19 treatment locator (<https://covid-19-therapeutics-locator-Dhhs.hub.Arcgis.com>) can help you find Paxlovid at other local pharmacies.

Remdesivir

Benefits: Remdesivir is favored as a second option if Paxlovid is not available or is not preferred because of significant drug-drug interactions. Remdesivir has also been shown in clinical trials to have an acceptable safety profile and resulted in lower risk of hospitalization or death than placebo. Remdesivir is expected to be active against current Omicron variants and is currently the only option available for patients under 12 years of age and under 40 kg. It can be given to patients over 28 days of life who are as small as 3 kg.

Disadvantages: Remdesivir requires IV infusions for 3 consecutive days so there are logistical constraints to consider. Additionally, as Remdesivir is FDA approved, patients will be billed for the drug.

Bebtelovimab

Benefits: Bebtelovimab should ONLY be used when Paxlovid or remdesivir are either not available or feasible to use. In vitro data suggests that bebtelovimab has activity against a broad range of COVID-19 variants. A single Phase 2 randomized placebo-controlled trial showed no unexpected safety events, and patients who received bebtelovimab had more rapid viral decay than those who received placebo. It is a one-time infusion that can be

administered relatively quickly. As bebtelovimab is still under EUA designation, the patient will not be billed for bebtelovimab administration but will be billed for the infusion visit.

Disadvantages: There are insufficient data on hospitalization and mortality outcomes, and it may not retain efficacy with the emergence of COVID-19 variants (including current Omicron subvariants).

Overall, the decision should be a shared decision model with the risks and benefits of available therapeutics discussed with the patient, family, and COVID treatment team so that the patient receives the best available option based on their co-morbidities and preferences.

The NIH and Infectious Disease Society of America have on-line resources: <https://www.idsociety.org/covid-19-real-time-learning-network/covid-19-outpatient-treatment--guidelines-roadmap/>
<https://www.covid19treatmentguidelines.nih.gov/>

Treatment with Paxlovid does not need approval from the COVID Treatment Team. Pediatric providers who wish to seek outpatient treatment for a patient with Remdesivir or Bebtelovimab should contact the COVID Treatment team via COVIDmonoclonalrequest@cchmc.org.

Mild-moderate COVID treatment: Outpatient

