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| Remdesivir – Talking Points for Providers |
| **What is remdesivir?**Remdesivir (brand name Veklury™) is a prescription medicine given through the vein that is used for the treatment of COVID-19 in adults and children 28 days of age and older and weighing at least 7 pounds (3 kg). Patients can be: * Hospitalized, or
* Not hospitalized and have mild-to-moderate COVID-19, and are more likely to have it worsen to become severe COVID-19, including hospitalization or death.

**Who should be considered for antiviral therapy for COVID-19?**Even if vaccinated, there are populations at greater risk for more severe disease requiring hospital admission. Patients diagnosed with COVID-19 with even mild-to-moderate symptoms meeting any of the criteria below should be considered for antiviral therapy.* Age 50 and older
* High risk medical condition
	+ Chronic heart, lung, or kidney disease
	+ Diabetes
	+ Cancer
	+ Overweight
	+ HIV infection
	+ Substance use disorders
	+ Severe asthma
* Compromised or weakened immune system
* This is not an all-inclusive list. Additional medical conditions that should be considered for assessing a patients risk for severe disease are listed by the CDC, refer to: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>

**When should antiviral for COVID-19 therapy be initiated?**Antiviral therapy should be initiated within 5-7days of symptom onset.**What antiviral therapies are available?**Patients with mild-to-moderate symptoms that are high risk for severe disease (above) not-requiring hospitalization for COVID-19 treatment may receive one of the following antivirals *(in order of preference)*:

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| **Nirmatrelvir/ritonavir (Paxlovid)** | **Remdesivir** **(Veklury)** | **Molnupiravir** **(Lagevrio)** |
| * Oral administration
* 5-day course
* Give within 5 days of symptom onset
* High potential for drug interactions, requires renal dose adjustment, not recommended if eGFR <30ml/min or if severe hepatic impairment
* Risk reduction of hospitalization/death: 88%
 | * Intravenous administration
* 3-day course
* Give within 7 days symptom onset
* Risk reduction of hospitalization/death: 87%
 | * Oral administration
* 5-day course
* Give within 5 days of symptom onset
* Requires contraception while on therapy and for 4 days after last dose, not recommended for use in pregnant patients
* Breastfeeding is not recommended during treatment, consider interrupting breastfeeding during treatment and for 4 days after last dose.
* Risk reduction of hospitalization/death: 30%
* *Only recommended for use if other therapies are not feasible or available*
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**When should remdesivir 3-day courses be considered for those with mild-to-moderate symptoms at high risk for progression instead of the available oral antivirals?**Based on [NIH treatment guidelines](https://www.covid19treatmentguidelines.nih.gov/management/clinical-management-of-adults/nonhospitalized-adults--therapeutic-management/), patients meeting criteria for antiviral therapy that are otherwise unable to receive nirmatrelvir/ritonavir should be considered for a 3-day IV remdesivir regimen. Patients with a contraindicating drug interaction, an eGFR <30ml/min, severe hepatic impairment, or unable to take orally administered medications that cannot receive nirmatrelvir/ritonavir are candidates for 3-day remdesivir regimens. Molnupiravir should only be considered for those unable to receive nirmatrelvir/ritonavir or remdesivir. **What side effects can patients potentially expect from remdesivir?**The most common adverse events reported from the use of available antiviral therapy include: nausea, diarrhea, altered sense of taste, higher blood pressure, feeling unwell. Serious allergic reactions are rare, however can include hives, skin rash, throat tightness, trouble swallowing/breathing, swollen lips/face. Patients should be instructed to stop use and seek medical care if a severe reaction occurs. **In addition to prescribing anti-viral therapy for those meeting criteria for treatment, what other interventions are recommended?**Patients may get some symptom relief by taking over the counter pain medications, antipyretics, decongestants, and cough suppressants. Patients should also be instructed to drink plenty of fluids and to rest.Providers should also remind patients to protect others by staying at home and staying in one room if they have a shared living space, and wearing a well-fitting mask around others for at 10 days following symptom onset. **Why is a 3-day course of remdesivir recommended if not specifically shown to reduce mortality?**Three-day courses prevent progression to more severe COVID-19 infections that result in hospitalization or death. In the [PINETREE trial](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2116846?articleTools=true) that evaluated the use of the 3-day remdesivir regimen, no patients died in the treatment group or placebo group, so the primary benefit was with reducing risk of hospitalization. This is still an important outcome supporting its use in certain high-risk patients, because it helps to reduce utilization of emergency department and hospital services, saving these resources for those that need them most (e.g. severe COVID-19 or other serious conditions). |
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