

## Ritonavir - boosted Nirmatrelvir (Paxlovid®) prescribing guidelines for the treatment of COVID-19 (Version 2.0)

### General Prescribing Guidance:

- Ritonavir-boosted nirmatrelvir (Paxlovid) is an oral antiviral used for the treatment of confirmed mild to moderate COVID-19 cases (no O<sub>2</sub> requirements/no evidence of pneumonia but with other symptoms of covid-19 e.g., fever) in outpatients (including non- hospitalized patients, patients seen in primary healthcare center, outpatient clinics, outpatient emergency visits) who are at high risk for progression to severe illness.
- This medication should **NOT** be used for hospitalized patients.
- This medication should **NOT** be used for preexposure prophylaxis for prevention of covid-19 disease.
- Patients who are at high risk of progression to severe illness include but are not limited to:
  - Cancer
  - Chronic Kidney Disease (CKD)
  - Chronic liver disease
  - Chronic lung disease
  - Cystic fibrosis
  - Dementia or other neurological conditions
  - Diabetes
  - Patients with disabilities
  - Heart diseases
  - HIV infection
  - Immunocompromised patients
  - Mental health conditions
  - Overweight and obese patients
  - Physical inactivity
  - Pregnancy
  - Sickle cell or thalassemia patients
  - Solid organ or blood stem cell transplant patients
  - Stroke or cerebrovascular disease
  - Substance use disorders
  - Tuberculosis patients
- This medication should only be started within 5 days of onset of symptoms.
- Dosing adjustment in renal failure is required. However, in patients with no known history of CKD, there is no need for ordering SCr prior to starting therapy

**- Inclusion criteria:**

1. Age  $\geq 12$  years
2. Weighing at least 40 kg
3. Non-hospitalized patients at high risk for progression to severe COVID-19 to prevent hospitalization or death
4. Within 5 days of symptoms onset
5. All patients with symptoms (antigen test positive) who are  $\geq 50$  years of age regardless of risk factors.
6. High-risk patients (12-49 years old) with one or more risk factors for disease progression

**- Exclusion criteria**

1. Age < 12 years
2. Weight < 40 kg
3. Current need for hospitalization/immediate medical attention in a clinic/emergency room service due to COVID-19

Medication name	Dosing information
<b>Ritonavir-boosted Nirmatrelvir (Paxlovid)</b>	<p><b>COVID-19 (Mild to Moderate), Patients at high risk for progression to severe COVID-19</b></p> <ul style="list-style-type: none"> <li>• Nirmatrelvir 300 mg (two 150-mg tablets) with ritonavir 100 mg (one 100-mg tablet); administer all three tablets together orally twice daily with or without food for 5 days; initiate as soon as possible after COVID-19 diagnosis and within 5 days of symptom onset.</li> <li>• Missed dose: If a dose is missed within 8 hours of the time it is usually taken, administer as soon as possible and resume the normal dosing schedule; if a dose is missed by more than 8 hours, do not administer the missed dose and instead administer the next dose at the regularly scheduled time. Do not double the dose to make up for a missed dose.</li> </ul> <p><b>Dose Adjustments</b></p> <ul style="list-style-type: none"> <li>• Renal impairment (mild; estimated GFR 60 to less than 90 mL/min): No adjustment necessary</li> <li>• Renal impairment (moderate; estimated GFR 30 to less</li> </ul>

	<p>than 60 mL/min): Nirmatrelvir 150 mg and ritonavir 100 mg twice daily for 5 days. If the nirmatrelvir 150 mg/ritonavir 100 mg dose pack is unavailable, removal of 1 nirmatrelvir tablet from the morning and evening doses of all blister packs is required prior to dispensing. Renal impairment (severe; estimated GFR less than 30 mL/min): Use not recommended; appropriate dosage for this population has not yet been determined. Systemic exposure of nirmatrelvir increases in renally impaired patients</p> <ul style="list-style-type: none"> <li>• Hepatic impairment (mild to moderate; Child-Pugh Class A or B): No adjustment necessary</li> <li>• Hepatic impairment (severe; Child-Pugh Class C): Use not recommended; no pharmacokinetic or safety data are available for this population</li> </ul> <p><b>Pregnancy &amp; Lactation</b></p> <p><i>Fetal risk cannot be ruled out.</i> <i>Breast Feeding, Infant risk cannot be ruled out.</i></p>
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#### References:

1. Micromedex®: Nirmatrelvir/Ritonavir, last access May 7, 2023
2. Saudi MoH Protocol for Patients Suspected of/Confirmed with COVID-19, (Version 3.9) April 14th, 2023
3. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>, updated Feb 10, 2023