



Ritonavir-Boosted Nirmatrelvir (brand name Paxlovid)

- Mechanism: Nirmatrelvir is a protease inhibitor; ritonavir is a cytochrome P450 3A4 inhibitor that increases nirmatrelvir concentrations.
- Regimen: Paxlovid is packaged with nirmatrelvir 150 mg x2 and ritonavir 100 mg. Take all three pills (nirmatrelvir 300 mg and ritonavir 100 mg) PO twice daily for five days. Initiate within five days of symptom onset.
- Main concerns: Significant drug-drug interactions.

Criteria:

- Age ≥ 12 years and weight ≥ 40 kg
- Mild to moderate disease in the outpatient setting
- High risk of progressing to severe illness.
- No contraindications (see box).



- Providers should document using “..Paxlovid” autotext and comment on need for labs. May place this in an Alert Note and complete full documentation later.
- Consult a pharmacist. **A pharmacist must be involved with all Paxlovid prescriptions.** See [Policy & Procedure](#) for details.
- Patients may request Paxlovid directly from the pharmacy. See [Policy & Procedure](#) for details.

Note

- Ritonavir can have significant [drug-drug interactions](#). These interactions are increased with renal or hepatic insufficiency.
- Pharmacist involvement is essential in making adjustments to chronic medications and creating a patient-specific, tailored plan.

Indications for Labwork (CMP)

- Age ≥ 65 years.
- Hypertension, diabetes, or CVD
- Other chronic viral illness (HIV, Hepatitis C)
- Malignancy, autoimmune diseases, nephrolithiasis, or recurrent UTIs
- Chronic use of nephrotoxic medications
- Family history or past history of CKD
- Clinical judgment.

(May defer If checked in the last 12 months and no suspicion for worsening renal or hepatic impairment in that time.)

Adverse Reactions

In the clinical studies quoted in the EUA, the following adverse events were reported: dysgeusia, diarrhea, hypertension, and myalgia.

Contraindications

- Paxlovid is NOT authorized for use in patients who are hospitalized, requiring supplemental oxygen, or requiring more than their baseline supplemental oxygen flow rates due to COVID.
- Do not give to any patient with known hypersensitivity to any ingredient of Paxlovid.
- Review patient's medications (including herbal supplements) for drug-drug interactions, summarized at the [NH COVID Treatment Guidelines](#).

Special Populations

- Pregnancy & Breastfeeding: There are no available data in these populations to use to make a recommendation.
- Renal Impairment:
 - Moderate (eGFR ≥ 30 to <60 mL/min): change dose to nirmatrelvir 150 mg (one tab) and ritonavir 100 mg (one tab)
 - Severe (eGFR <30 mL/min): not recommended
- Hepatic Impairment: not recommended if [Child-Pugh Score](#) Class C.