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| **Risk factors for severe COVID-19\*** |
| Age ≥ 50 years oldCancerChronic lung diseaseChronic liver diseaseChronic kidney diseaseDiabetesDisabilitiesHeart diseaseImmunocompromiseNeurologic conditionsOverweight/obesityPhysical inactivityPregnancySmoking (history of)StrokeSubstance use disorders |
| \*For details, see: [mass.gov/MedicalConditionsVaccine](http://mass.gov/MedicalConditionsVaccine) |

Ritonavir-boosted nirmatrelvir (Paxlovid) is a safe and effective oral treatment for people with COVID-19 to prevent severe disease.

**Indications for treatment:**

1. Positive test for COVID-19 (rapid antigen test or nucleic acid amplification test)
2. Any symptomatic infection that does not require hospitalization
3. Within five days of symptom onset
4. ≥12 years old and weigh ≥40 kg
5. Any risk factor (see Table 1), including being unvaccinated or not up to date with COVID-19 vaccination

# Dosing:

The standard dose of boosted nirmatrelvir is 300 mg of nirmatrelvir with 100 mg of ritonavir, taken twice a day for five days, dispensed as a single course in a blister pack. The dose should be reduced to nirmatrelvir 150 mg with ritonavir 100 mg twice daily in patients with moderate renal impairment (i.e., estimated glomerular filtration rate [eGFR] of ≥30 to <60 mL/min). Ritonavir-boosted nirmatrelvir is not recommended in patients with an eGFR of <30 mL/min or for patients with severe hepatic impairment (i.e., Child-Pugh Class C).

# Adverse effects:

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| **Paxlovid Treatment Guidance** |

The most common adverse effects of ritonavir-boosted nirmatrelvir are dysgeusia, diarrhea, hypertension, and myalgia. Rarely people can develop a rebound of mild COVID-19 symptoms and positive tests after treatment.

# Drug-drug interactions:

Ritonavir-boosted nirmatrelvir has significant drug-drug interactions with some medications, primarily due to the ritonavir component. Before prescribing ritonavir-boosted nirmatrelvir, clinicians should carefully review the patient’s concomitant medications, including over-the-counter medicines, herbal supplements, and recreational drugs.

**Table 2. Common concomitant medications that interact with ritonavir-booster nirmatrelvir**

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| **Temporarily withhold, if clinically appropriate** | **Alternative COVID-19 therapy recommended** | **Adjust dose and monitor** |
| ChemotherapyClonazepamColchicineHMG-CoA reductase inhibitors (statins)RivaroxibanSalmeterolTacrolimus | AmiodaroneCarbamazepineClopidogrelClozapine PhenytoinRifampinSt. John’s Wort | AmlodipineApixibanCyclosporineDigoxinOxycodoneTamsulosinTrazadone |

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| This table is not a comprehensive list of all the drugs that may interact with ritonavir boosted nirmatrelvir. This table focuses on common concomitant medications that may be prescribed in the outpatient setting. Clinicians should refer to resources such as the [Liverpool COVID-19 Drug Interactions website](https://www.covid19-druginteractions.org/), the [University of Waterloo drug interaction guide](https://covid19-sciencetable.ca/wp-content/uploads/2022/06/NirmatrelvirRitonavir-Paxlovid-What-Prescribers-and-Pharmacists-Need-to-Know-with-Appendix_20220606.pdf), and the [EUA fact sheet](https://www.fda.gov/media/155050/download) for ritonavir boosted nirmatrelvir for additional guidance regarding potential drug-drug interactions. | NOVEMBER 2022 |