

## Health Update

### Ritonavir-boosted nirmatrelvir (Paxlovid) for Non-hospitalized Adults October 26, 2022

#### SUMMARY POINTS

- Paxlovid is under prescribed among older adults and those with certain underlying conditions who could most benefit.
- Paxlovid has been shown to reduce the risk of hospitalization in these groups, regardless of vaccination status.
- Many drug-drug interactions can be managed by pausing or dose adjusting a medication during the course of treatment with Paxlovid. Many tools are available to assist providers in managing patients with multiple medications.

#### **Indication**

The NIH recommends ritonavir-boosted nirmatrelvir (Paxlovid) for non-hospitalized adults who are at high risk of progressing to severe COVID-19. This includes those with certain medical conditions, including, but not limited to, obesity, inactivity, diabetes, asthma, and smoking. See the CDC's [Underlying medical conditions](#) for an exhaustive list. In a clinical trial, Paxlovid provided an 88% reduction in hospitalization or death when compared to the placebo. Other studies have shown that Paxlovid is highly effective at preventing hospitalization and death in vulnerable groups, regardless of vaccination status.

Additional risk factors include older age, a prolonged amount of time since the most recent vaccine dose (i.e., >4–6 months), and a decreased likelihood of an adequate immune response to vaccination due to a moderate to severe immunocompromising condition or the receipt of immunosuppressive medications. The number and severity of the risk factors affects the level of risk.

Patients in the at-risk population who report a positive home test result from a rapid antigen diagnostic test to their provider and those with a positive PCR test are eligible for Paxlovid under the [emergency use authorization \(EUA\)](#). Confirmation of a positive home rapid antigen diagnostic test with additional direct SARS-CoV-2 viral testing, such as a PCR, is not required.

#### **Drug-Drug Interactions**

Because Paxlovid is the [only highly effective oral antiviral](#) for the treatment of COVID-19, drug interactions that can be safely managed should not preclude the use of this medication. Clinicians should be aware that many commonly used medications can be safely co-administered with Paxlovid despite its drug-drug interaction potential. Multiple tools exist to aid in medication management, including the [FDA's patient eligibility checklist](#), [Ontario's Advisory Table](#) from the University of Waterloo, and an [interactive tool](#) from the University of Liverpool, also available as a smartphone app (COVID-19 iChart).

#### **Renal Dosing**

In patients with moderate renal impairment (eGFR  $\geq 30$  to  $< 60$  mL/min), the dosage of Paxlovid is 150 mg nirmatrelvir (one 150 mg tablet) and 100 mg ritonavir (one 100 mg tablet) twice daily for five days.

Patients with mild renal impairment (eGFR  $\geq 60$  to  $< 90$  mL/min) should receive the standard dose of 300 mg nirmatrelvir (two 150 mg tablets) and 100 mg ritonavir (one 100 mg tablet) with all three tablets taken together orally twice daily for five days.

Paxlovid is not recommended at this time in patients with severe renal impairment (eGFR  $< 30$  mL/min).

Health care providers may rely on patient history and access to the patient's health records to make an assessment regarding the likelihood of renal impairment. For patients with a high likelihood of renal impairment, providers may consider ordering a serum creatinine or calculating the estimated glomerular filtration rate (eGFR) after assessment on a case-by-case basis.

### ***Viral Rebound***

There is evidence from Paxlovid's clinical trials as well as other studies that suggest that the amount of virus can fluctuate during the course of COVID-19 infection, independent of Paxlovid use. Recent [clinical trial data](#) shows there was no significant difference in viral load rebound between the Paxlovid group and the placebo.

Viral rebound may occur but should not preclude the use of Paxlovid in vulnerable groups that benefit from reduced risk of hospitalization and death.

### **Links**

[Information Sheet: Paxlovid Eligibility and Effectiveness \(hhs.gov\)](#)

[COVID-19 Therapeutics Decision Aid \(hhs.gov\)](#)