

Test to Treat FAQs for clinicians, prescribers, and health care teams

What is “Test to Treat”?

- Test to Treat (sometimes abbreviated as “T2T”) is a strategy to streamline early COVID-19 diagnosis and prompt treatment with oral antiviral drugs for patients at increased risk of severe COVID-19.
- Step one (“Test”) is to identify symptomatic patients within five days of symptom onset and perform a test— ideally a rapid diagnostic test—to confirm COVID-19 infection.
- Step two (“to Treat”) is to identify patients who are at high risk for developing severe illness or death from COVID-19 and initiate oral antiviral treatment in such patients.
- In the Test to Treat strategy, all positive COVID-19 patients can have streamlined access to evidence-based care, even if they are not eligible for oral antivirals, and all patients should be educated and monitored throughout the course of their illness for symptom resolution.

How does Test to Treat improve care and outcomes for patients?

- Test to Treat is an effective strategy to prevent hospitalizations and deaths in high-risk patients who are diagnosed with COVID-19.
- Vulnerable patients, including patients of older age (especially ≥ 65 years) and patients with comorbidities such as chronic disease, obesity, immunosuppression and other risk factors may be eligible for these effective treatment options. When used by appropriate patients, these medications have been shown to reduce the rates of hospitalization and death.
- Streamlined access to rapid testing means the treatment can be started quickly, which is necessary for it to be effective (oral antivirals must be started within 5 days of onset of symptoms!).

How does Test to Treat improve the experience of the clinical team?

- Test to Treat takes advantage of effective oral treatments for high-risk patients, leading to decreased progression to severe disease or death. This is an incredible advance in care for COVID-19 patients and can improve the health of individuals and the broader community – this is what motivates clinicians! Having faced such challenges throughout the pandemic, the opportunity to provide effective treatment for COVID-19 patients is excellent.
- Implementing Test to Treat in your facility and community relies on building efficient, streamlined workflows. This requirement could enhance community awareness and improve overall workflows in your health facility and help create efficiency when caring for patients with respiratory symptoms.

Who should get tested for COVID-19?

- Anyone with symptoms should be tested, even if symptoms are mild. Symptoms include fever, cough, fatigue, loss of taste and smell, shortness of breath, sore throat, runny nose/congestion, body aches/muscle aches and, sometimes, nausea, vomiting, and/or diarrhea. It is especially important to test as early as possible once symptoms start, as oral antivirals are only effective if started within five days of symptom onset.

Do people need to get tested for COVID-19 if they have only mild symptoms?

- Yes! Some of the newer SARS-CoV-2 variants are milder in their initial presentation than earlier variants, especially in vaccinated patients. High-risk patients can start with mild symptoms and then progress to severe illness later - so high-risk patients with any symptoms in the first 5 days should remain a high priority for testing. Testing for COVID-19 will identify positive cases, streamline opportunities to provide care for these patients, and effectively guide isolation and quarantine measures to prevent disease transmission. The more we test, the more we know and the more we can protect our patients and communities.

Do people who are already vaccinated still need to be tested?

- Yes! Vaccination is important in preventing severe COVID-19 disease, but fully vaccinated people can still become infected, be contagious and (especially if elderly or immunocompromised) have more severe disease. Vaccination is not a contraindication for oral antivirals, so early testing of symptomatic patients is important to determine if a patient meets criteria for oral antiviral treatment.

What about the different types of tests?

- Tests for COVID-19 include polymerase chain reaction (PCR, also known as NAAT), and rapid antigen or rapid diagnostic tests (RDTs). Communities and clinical sites may have access to different types of tests, depending on local availability and regulations. Rapid diagnostic testing is preferred and encouraged in order to enable faster access to treatment and care, but Test to Treat can be implemented with any positive COVID-19 test. Consider local protocols, but the general guidelines for Test to Treat are to promote diagnosis based on a symptomatic patient with any positive test, including rapid antigen tests (either self-administered or provider administered) or a PCR test.

What oral antivirals are effective and approved for Test to Treat for COVID-19?

- Two antiviral medications are effective and approved for Test to Treat: Paxlovid (nirmatrelvir/ritonavir, or NMV/r) and Lagevrio (molnupiravir, MOL). These are intended to be used in outpatient (non-hospitalized) settings. Generic versions of these medications are anticipated in upcoming months – continue to be attentive to local guidelines regarding specific details and availability.
- There are other treatments indicated for patients with more severe disease requiring advanced levels of care (i.e., treatment in a hospital due to severe or critical COVID-19).

The goal of oral antiviral therapy is to reduce the risk of requiring an advanced level of hospital care and reduce the risk of death.

Who is eligible for oral antiviral treatment?

- Symptomatic COVID-19 patients, confirmed with a positive test, within five days of onset of symptoms, and who are at risk for progression to severe disease.
- Patients must be age 12 or older and weigh at least 40 kilograms (88 pounds) to take NMV/r, and age 18 years or older to take MOL, but generally, the Test to Treat strategy is geared to adult patients with risk factors for developing complications.
- Risk factors for developing severe or critical COVID-19 include (but not limited to):
 - Older than age 50; risk increasing substantially at age 65 and above
 - Chronic medical diseases such as pulmonary/lung disease, hypertension, diabetes, chronic kidney disease, immunocompromised state, HIV infection, obesity (BMI > 30kg/m²)
- See [treatment algorithm](#) and other resources for more details

Who is NOT eligible for oral antiviral treatment?

- Asymptomatic patients even if they have a positive COVID-19 test
- Symptomatic patients with only negative COVID-19 tests
- Patients who do not have risk factors for developing severe or critical COVID-19
- Patients who have had symptoms for more than five days
- (For NMV/r only) Patients who have severe kidney or liver disease (see clinical guidance materials)
- Patients who are allergic to any of the ingredients in the medication
- Patients who cannot swallow whole tablets; oral antiviral pills should not be cut or crushed and must be swallowed whole
- (For NMV/r only) Patients who are using other drugs that cannot be discontinued or dose-adjusted that may result in potentially significant drug-drug interactions with NMV/r.

Patients not eligible for oral antivirals can be reassured that they are receiving person-centered, evidence-based care and be advised on how to treat symptoms safely at home, even if they don't get a prescription for antivirals.

What are the prescribing instructions for oral antiviral medications?

- It is important to reconcile or update a patient's current medication list prior to starting oral antiviral therapy. There are important drug-drug interactions (especially for NMV/r), and there are several resources to guide dosing adjustments and/or interruptions as a patient completes their course of antiviral therapy (for example <https://www.covid19-druginteractions.org/>).
- The dosage for Paxlovid is 300 mg nirmatrelvir (two 150 mg tablets) with 100 mg ritonavir (one 100 mg tablet), with all three tablets taken together orally twice daily for five days. The

full five-day course should be completed in conjunction with continued isolation according to public health recommendations.

- The dosage for Lagevrio (molnupiravir) is 800 mg (four 200 mg capsules) orally, every 12 hours for five days. The full five-day course should be completed in conjunction with continued isolation according to public health recommendations.
- The drugs can be taken with or without food. The tablets or capsules should not be cut, crushed, or broken.
- Drug-drug interactions should be considered; specific details and recommendations for dose adjustments can be found on the [Test to Treat antiviral therapy algorithm](#)

What tests do patients need before starting oral antiviral therapy for COVID-19?

- No pre-treatment renal (kidney) laboratory tests or hepatic (liver) laboratory tests are required or recommended to start oral antiviral therapy.
- If a patient has known chronic kidney disease with a recent eGFR of 30–60, consider adjusting the dose of NMV/r per the renal dosing guidelines. If a patient has known advanced kidney disease with eGFR < 30, NMV/r should not be prescribed. Evaluate the patient for the use of molnupiravir.
- If a patient does not have a recent eGFR but there is high suspicion of advanced renal disease, use clinical judgment to decide if the benefit of NMV/r outweighs the risk and/or if you can get laboratory values back in a timely manner to manage the patient accordingly.
- If the patient has known severe hepatic (liver) impairment disease, NMV/r should not be prescribed. Evaluate the patient for the use of molnupiravir.
- A pregnancy test is not required.

What about patients who are pregnant, or considering becoming pregnant?

- Consensus does not exist on the recommendation of NMV/r for pregnant patients. The US FDA and NIH state that for a mother and unborn baby, the benefit of taking NMV/r may be greater than the risk from the treatment, given existing animal studies and the extensive use of ritonavir in pregnant women with HIV. By contrast, WHO states that their strong recommendation for its use does not apply to pregnant patients. Decision making regarding prescription of NMV/r should be made in consultation between the patient and the health care worker, considering specific risks and benefits.
- Molnupiravir should not be used in pregnancy, and both men and women should be counseled to use a reliable method of contraception to avoid pregnancy within four days (females) and three months (males) of completing the course of molnupiravir.

What side effects should patients be aware of?

- Possible side effects of NMV/r include altered or impaired sense of taste, diarrhea, increased blood pressure, heart rate changes, and muscle aches. Allergic reactions, abdominal pain, nausea, and malaise have also been reported during and after NMV/r use.
- Possible side effects of molnupiravir include diarrhea, dizziness, and nausea.
- Most people have no side effects, or very mild side effects. However, patients who develop severe or distressing side effects should contact their health care team to discuss the relative risk of stopping the treatment course compared to continuing the course.

What are some key counseling points to include when prescribing?

- For those who are eligible, discuss the benefits, efficacy, and goals of treatment, along with standard counseling on common and rare side effects when prescribing any medication.
- For those who are NOT eligible, explain why they do not qualify for a prescription. Some patients may feel confused or upset if they cannot have the treatment for COVID-19. Reassure them that the health care team is providing the best, evidence-based treatment and care even if it cannot include oral antivirals. Any member of the health care team taking care of low-risk patients who are not eligible for oral antivirals can explain that oral antivirals are only indicated for people at risk for developing complications that may lead to death. Oral antivirals have not been shown to reduce illness severity in low-risk patients, and benefit has not been demonstrated in people at-risk who start treatment more than five days after symptom onset. Supportive symptom management at home will likely have the same therapeutic effect without the concerns for side effects of the medication.
- Counsel patients to remain in isolation through the course of treatment (5 days after diagnosis); After day 5, continue isolation if still having significant symptoms or requiring medication for fever and symptom control. .
- Counsel patients about basic supportive care (i.e., rest, hydration, nutrition, analgesia, antipyretics, etc.) and about the typical progression of mild or moderate COVID-19.
- Tell patients if their symptoms worsen to contact a health care provider or return to the clinic for further evaluation.
- Counsel patients to contact the health care team if rebound symptoms occur. Rebound symptoms have been reported but are usually mild. If COVID-19 symptoms return after completion of the oral antiviral course, consider repeat testing and have the patient continue to isolate if still testing positive for COVID-19. A repeat course of oral antivirals is not indicated for rebound symptoms.
- If patients live with other people, consider potential exposure to those individuals and their possible risk factors. Encourage patients and families to remain vigilant and test liberally.

How can Test to Treat for COVID-19 improve experiences for patients with other health issues in the future?

- Early diagnosis and initiation of appropriate treatment can change the course of patients with COVID-19. As the pandemic evolves, future COVID-19 variants may be more severe, in which case Test to Treat could be even more important. A similar approach has been used effectively in HIV and can be applied to other scenarios including bacterial infections, traumatic injuries and more. Practicing this approach for early, accurate diagnosis and management of acute patient presentations has potential for better patient care experiences and outcomes.

Learn more about Test to Treat strategy, medications, and recommendations

- The World Health Organization recommends the use of oral antivirals as part of the [Living Guidelines for Treatment of COVID-19](#). [Opencriticalcare.org](#) features both a [Test to Treat Algorithm](#) (for clinical management) and [Implementation Guide](#) for workflows in clinical settings.
- Consult other training materials made available as part of this Test to Treat strategy.

