January 27: Oral Treatment Prescribing, NIH Treatment Guidelines, and Booster and Third Dose Effectiveness Against Omicron

Today's issue features information about the NM process for prescribing oral therapies for the treatment of non-hospitalized patients with COVID-19 who are at high risk of severe disease. It also includes recommendations for physicians and clinicians from the National Institutes of Health (NIH) on the use of oral and intravenous outpatient treatments, as well as new data from the Centers for Disease Control and Prevention (CDC) that shows booster shots and third doses can prevent omicron infection and reduce hospitalizations.

ORAL TREATMENT PRESCRIBING NOW AVAILABLE IN EPIC

Outpatient prescription ordering for **nirmatrelvir/ritonavir (Paxlovid)** and **molnupiravir (Lagevrio)** is now live in Epic. These oral medications have Emergency Use Authorization (EUA) for the treatment of COVID-19 in patients who are at high risk for progression to severe illness, including hospitalization or death.

At this time, e-prescribing is available to physicians in all regions of the health system except for South Region, where it will be available soon.

The clinical decision support built into Epic will guide physicians to the most appropriate treatment option for their patient. Physicians are strongly encouraged to review the following resources to understand the indications, contraindications and precautions related to these medications:

- **NM COVID-19 Guidance for Outpatient Therapy**
- **Epic Tip Sheet**
- **Key Reminders for Physicians**
- **Nirmatrelvir/Ritonavir (Paxlovid) EUA Fact Sheet for Healthcare Providers**
- **Molnupiravir (Lagevrio) EUA Fact Sheet for Healthcare Providers**

Availability for these medications is extremely limited and demand far exceeds supply; therefore, please discuss alternative options with the patient if the prescription cannot be filled. Current allocations can be viewed at **healthdata.gov**.

Additional resources are available on the **COVID-19 Treatment Resources page** on Physician Forum, as well as the **COVID-19 Treatment Resources page** on NM Interactive (login required).

NIH TREATMENT GUIDELINES

On January 19, the NIH updated **The COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients With Mild to Moderate COVID-19**. The revised statement provides clinicians with guidance on the use of ritonavir-boosted nirmatrelvir (Paxlovid), sotrovimab, remdesivir and molnupiravir for the treatment of patients with COVID-19 who are not hospitalized but at high risk of progressing to severe disease. The NIH recommendations, which are outlined below, list therapies in order of preference, as well as dosage for each therapy and special considerations.

*The information below is an excerpt from **The COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients With Mild to Moderate COVID-19.***

Recommendations
For patients with mild to moderate COVID-19 who are not hospitalized and are at high risk of disease progression, the panel recommends using one of the following therapeutics (listed in order of preference):

- **Nirmatrelvir 300 mg with ritonavir 100 mg (Paxlovid) orally** twice daily for 5 days, initiated as soon as possible and within 5 days of symptom onset in those age 12 years and older and weighing 40 kg or more .
    - Ritonavir-boosted nirmatrelvir (Paxlovid) has significant and complex drug-drug interactions, primarily due to the ritonavir component of the combination.
    - Before prescribing ritonavir-boosted nirmatrelvir (Paxlovid), clinicians should carefully review the patient's concomitant medications, including over-the-counter medications and herbal supplements, to evaluate potential drug-drug interactions. See the panel's **statement** on the drug-drug interactions for ritonavir-boosted nirmatrelvir (Paxlovid) for details.
- **Sotrovimab 500 mg as a single IV infusion**, administered as soon as possible and within 10 days of symptom onset in those age 12 years and older and weighing 40 kg or more.
    - Sotrovimab should be administered in a setting where severe hypersensitivity reactions, such as anaphylaxis, can be managed. Patients should be monitored during the infusion and observed for at least 1 hour after infusion.
- **Remdesivir 200 mg IV on Day 1, followed by remdesivir 100 mg IV daily on Days 2 and 3**, initiated as soon as possible and within 7 days of symptom onset in those age 12 years and older and weighing 40 kg or more.
    - Because remdesivir requires IV infusion for 3 consecutive days, there may be logistical constraints to administering it in many settings.
    - Remdesivir should be administered in a setting where severe hypersensitivity reactions, such as anaphylaxis, can be managed. Patients should be monitored during the infusion and observed for at least 1 hour after infusion.
- **Molnupiravir 800 mg orally twice daily for 5 days**, initiated as soon as possible and within 5 days of symptom onset in those age 18 years or older ONLY when none of the above options can be used.
    - The FDA EUA states that molnupiravir is *not recommended for use in pregnant patients* due to concerns about fetal toxicity observed during animal studies. However, when other therapies are not available, pregnant people with COVID-19 who are at high risk of progressing to severe disease may reasonably choose molnupiravir therapy after being fully informed of the risks, particularly those who are beyond the time of embryogenesis (more than 10 weeks' gestation). The prescribing clinician should document that a discussion of the risks and benefits occurred and that the patient chose this therapy.

- There are no data on the use of molnupiravir in patients who have received COVID-19 vaccines, and the risk-to-benefit ratio is likely to be less favorable because of the lower efficacy of this drug.

For additional information, please view **The COVID-19 Treatment Guidelines Panel's Statement on Therapies for High-Risk, Nonhospitalized Patients With Mild to Moderate COVID-19** on the NIH website.

BOOSTER AND THIRD DOSE EFFECTIVENESS AGAINST OMICRON

On January 21, the CDC released data from a **study** that shows receipt of a booster or third dose of the Pfizer-BioNTech or Moderna mRNA vaccines was highly effective at preventing COVID-19-associated hospitalizations, as well as COVID-19-associated emergency department and urgent care encounters, during both the delta and omicron surges. The findings also demonstrate that the two mRNA vaccines are less effective against omicron than delta.

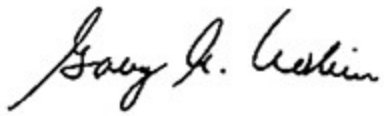
In a multistate analysis of 222,772 ED and urgent care encounters and 87,904 hospitalizations among adults with COVID-19-like illness between August 26, 2021, and January 5, 2022, estimates of vaccine effectiveness against laboratory-confirmed COVID-19 declined during the omicron-predominant period compared with vaccine effectiveness during the delta-predominant period. However, vaccine effectiveness increased following a booster or third dose of the two mRNA vaccines and was highly effective during both the delta- and omicron-predominant periods at preventing COVID-19-associated ED and urgent care encounters (94% and 82%, respectively) and preventing COVID-19-associated hospitalization (94% and 90%, respectively).

According to the CDC, these findings underscore the importance of receiving a booster or third dose of an mRNA COVID-19 vaccine to prevent both moderately severe and severe COVID-19, especially while the omicron variant is the predominant circulating variant and when the effectiveness of two doses of an mRNA vaccine is significantly reduced against this variant. The CDC concludes:

- All unvaccinated persons should start vaccination as soon as possible.
- All adults who received mRNA vaccines during their primary COVID-19 vaccination series should receive a booster dose or third dose when eligible.
- Eligible persons should stay up to date with COVID-19 vaccinations.

View details from the study on the **CDC website**. For more information about patient vaccinations and boosters, please visit the **COVID-19 Vaccines for People Age 12 and Older** page on nm.org.

The number of patients with COVID-19 is continuing to decline across the state and within our hospitals. However, while to omicron variant remains prevalent in our community, it is necessary to continue following appropriate masking guidelines and other precautions to keep our patients, colleagues and communities safe.



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