molnupiravir – Emergency use authorization

- On December 23, 2021, the FDA announced the emergency use authorization (EUA) approval of Merck's molnupiravir, for the treatment of mild-to-moderate coronavirus disease 2019 (COVID-19) in adults with positive results of direct severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) viral testing who are at high risk for progressing to severe COVID-19, including hospitalization or death, and *for whom alternative COVID-19 treatment options authorized by FDA are not accessible or clinically appropriate*.

- Molnupiravir is not authorized:

    - For use in patients less than 18 years of age.
    - For initiation of treatment in patients requiring hospitalization due to COVID-19. Benefit of treatment with molnupiravir has not been observed in subjects when treatment was initiated after hospitalization due to COVID-19.
    - For use for longer than 5 consecutive days.
    - For pre-exposure or post-exposure prophylaxis for prevention of COVID-19.

- Based on findings from animal reproduction studies, molnupiravir may cause fetal harm when administered to pregnant individuals.

    - The prescribing healthcare provider must assess whether a female of childbearing potential is pregnant or not, if clinically indicated. Molnupiravir should be prescribed only after the healthcare provider has determined that the benefits would outweigh the risks for that individual patient.

- Molnupiravir may only be prescribed for an individual patient by physicians, advanced practice registered nurses, and physician assistants that are licensed or authorized under state law to prescribe drugs in the therapeutic class to which molnupiravir belongs (ie, anti-infectives).

- Molnupiravir works by introducing errors into the SARS-CoV-2 virus' genetic code (known as viral error catastrophe or viral lethal mutagenesis), which prevents the virus from further replicating.

- The EUA was based on MOVE-OUT, a randomized, double-blind, placebo-controlled study in 1,433 non-hospitalized symptomatic (≤ 5 days) adult patients with a laboratory confirmed diagnosis of SARS-CoV-2 infection. It enrolled adults ≥ 18 years of age with one risk factor for progression to severe disease and who had no prior history of COVID-19 and were unvaccinated. Patients received molnupiravir twice daily for 5 days or placebo. The primary efficacy endpoint was the percentage of patients who were hospitalized or died through day 29 due to any cause.

    - A total of 6.8% of molnupiravir-treated patients vs. 9.7% of placebo-treated patients met the primary endpoint (hospitalization or death). The adjusted risk difference was -3.0% (95% CI: -5.9, -0.1).
    - For all-cause mortality, there was 1 patient in the molnupiravir group vs. 9 patients in the placebo group at day 29.

- Warnings and precautions for molnupiravir include embryo-fetal toxicity and bone and cartilage toxicity.

- The most common adverse reactions (≥ 1%) with molnupiravir use were diarrhea, nausea, and dizziness.

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- The recommended dose of molnupiravir is 800 mg (four 200 mg capsules) taken orally every 12 hours for 5 days, with or without food.

    — The 5-day treatment course of molnupiravir should be initiated as soon as possible after a diagnosis of COVID-19, and within 5 days of symptom onset.
    — Completion of the full 5-day treatment course of molnupiravir and continued isolation in accordance with public health recommendations are important to maximize viral clearance and minimize transmission of SARS-CoV-2.

- Merck will ship molnupiravir within days, and the federal government will manage distribution.

    — Merck plans to supply 3.1 million treatment courses to the U.S. government. Drug will be shipped to Amerisource Bergen, the sole distributor.
    — Molnupiravir will be available as 200 mg capsules in 40 count bottles. The NDC numbers are 0006-5055-06 and 0006-5055-07.
    — It is anticipated that the drug cost will be covered at this time by the federal government.