Fact Sheet

Molnupiravir (Lagevrio®)

Information for prescribers and pharmacists

Molnupiravir was provisionally registered by the Therapeutic Goods Administration in January 2022 for the treatment of adults with mild COVID-19. Molnupiravir is available via the National Medical Stockpile (NMS) and as of March 1st, 2022, it is available to eligible patients via a streamlined authority on the Pharmaceutical Benefits Scheme (PBS).

How molnupiravir works

Molnupiravir is an antiviral medication which inhibits viral replication by causing a viral error catastrophe. It is a prodrug that is metabolised to the ribonucleoside analogue n-hydroxycytidine (NHC). NHC distributes into cells where it is phosphorylated to form the pharmacologically active ribonucleoside triphosphate (NHC-TP). Inhibition of viral replication occurs when NHC-TP is incorporated into viral RNA by the viral RNA polymerase resulting in an accumulation of errors in the viral genome.

What is the evidence for molnupiravir?

Based on evidence from the MOVe-OUT trial, molnupiravir may reduce hospitalisation or death in unvaccinated patients with risk factors for progressing to severe COVID-19 illness when commenced within 5 days of symptom onset. The MOVe-OUT trial demonstrated a 30% reduction of disease progression leading to hospitalisation or death at 29 days compared with placebo.

The current recommendations from the National COVID-19 Clinical Evidence Taskforce Guidelines for molnupiravir are to consider using molnupiravir within 5 days of symptom onset in unvaccinated adults with COVID-19 who do not require oxygen and who have one or more risk factors for disease progression, where other treatments (such as nirmatrelvir plus ritonavir or remdesivir) are not suitable or available.

Who should be prescribed molnupiravir?

Decisions about the appropriateness of treatment with molnupiravir should be based on the patient's individual risk of severe disease, age and risk factors, COVID-19 vaccination status and time since vaccination.

Currently molnupiravir is NOT recommended during pregnancy, in women of childbearing potential not using contraception or in paediatric patients under 18 years of age.

Eligibility Criteria

As per the National COVID-19 Clinical Evidence Taskforce Guidelines and SA Health Guidelines, non-pregnant adult patients are eligible for treatment with molnupiravir if:

- Confirmed as being COVID-19 positive by either a PCR test or have a positive Rapid Antigen Test PLUS symptoms of mild COVID-19 illness **AND**
- For symptomatic patients: have been symptomatic for ≤ 5 days **OR** for asymptomatic patients with a positive PCR ≤ 5 days since positive result **AND**
- Don't have an oxygen requirement **AND**Unvaccinated or vaccine status not up to date against COVID-19 **AND** have risk factor(s) for developing severe disease
  OR
  prescribed molnupiravir as per PBS criteria

Government of South Australia
SA Health

OR

Immunosuppressed (regardless of vaccination status

AND

- Nirmatrelvir plus ritonavir (first line treatment option) is not suitable AND remdesivir is not suitable or available.

Please note these eligibility criteria may be different form the PBS Streamlined Authority listing for molnupiravir. It is recommended that local and national guidelines be followed where appropriate.

Contraindications

Hypersensitivity to molnupiravir or to any of the excipients

Age < 18 years

Pregnant or breastfeeding

Special Warnings and Precautions for Use

Use in pregnancy (Category D):

The use of molnupiravir is not recommended during pregnancy.

Women of childbearing potential should be advised to use effective contraception for the duration of treatment and for at least four (4) days after the last dose of molnupiravir.

Based on animal data, molnupiravir may cause fetal harm, and there are no available data on the use of molnupiravir in pregnant women to evaluate the risk of major birth defects, miscarriage or adverse maternal or fetal outcomes.

Use in breastfeeding

It is not known how much molnupiravir passes into breast milk.

An individual risk assessment should be conducted for each patient, considering the benefits of any treatment and the benefits of continued breastfeeding.

Currently, the manufacturer and lactation resources advise that breastfeeding is not recommended during treatment with molnupiravir and for 4 days after the last dose due to the potential for adverse reactions on the infant.

Paternal Use

Molnupiravir and its active metabolite have produced in vitro mutagenic effects. There are no data available on whether molnupiravir affects human sperm. It is recommended that men who are sexually active with a partner of childbearing potential use an effective form of contraception during treatment and for three (3) months after treatment with molnupiravir.

Paediatric patients

The safety and efficacy of molnupiravir has not been established in patients less than 18 years of age, therefore use in paediatric patients is not recommended. Molnupiravir may affect bone and cartilage, consisting of an increase in the thickness of physeal and epiphyseal growth cartilage with decreases in trabecular bone.

Drug Interactions:

No drug interactions have been identified based on the limited data currently available.

Neither molnupiravir nor NHC are inhibitors or inducers of major drug metabolising enzymes or transporters, therefore, the potential for molnupiravir or NHC to interact with concomitant medications is considered unlikely.

The University of Liverpool COVID-19 Drug Interactions checker can be used to check for specific interactions between molnupiravir and other medications/medication classes as further information becomes available through clinical trials and ongoing assessments.

Molnupiravir dosing

The recommended dose of molnupiravir is:

800mg (4 x 200mg capsules) taken orally every 12 hours for 5 days.

Molnupiravir should be started as soon as possible after a diagnosis of symptomatic COVID-19 has been made and within five days of symptom onset.

Molnupiravir capsules may be taken with or without food. For patients with swallowing difficulties please refer to 'Don't Rush to Crush' or Medicines Information for further information.

Renal and Hepatic impairment:

No dosage adjustment is required for patients with renal or hepatic impairment.

What if a patient misses a dose:

If the patient misses a dose of molnupiravir within 10 hours of the time it is usually taken, the patient should take it as soon as possible and resume the normal dosing schedule.

If a patient misses a dose by more than 10 hours, the patient should not take the missed dose and instead take the next dose at the regularly scheduled time. The patient should not double the dose to make up for a missed dose.

Adverse Effects

The most commonly reported adverse effects reported in the MOVe-OUT trial were diarrhoea, nausea and dizziness, all of which were mild or moderate.

While serious adverse events occurred in 7% of patients receiving molnupiravir, none were considered drug-related by the investigator and most were COVID-19 related.

Refer to the product information for a complete list of possible adverse effects. As molnupiravir is a provisionally approved medicine which has no relevant post-marketing data, it is important to document and report all (from possible to confirmed) adverse effects experienced by the patient during treatment to inform its safety profile and future use. Molnupiravir is subject to additional monitoring in Australia to allow quick identification of new safety information. Healthcare professionals should report any suspected adverse events to the TGA at http://www.tga.gov.au/reporting-problems

Presentation and storage

Molnupiravir is available under the trade name Lagevrio®. The formulation available is presented as a 'Swedish Orange' opaque capsule with "82" printed with white ink. Each capsule contains 200mg of molnupiravir. Molnupiravir should be stored below 30°C in the original bottle, away from heat, light and moisture.

Further information

Clinical resources

National COVID-19 Clinical Evidence Taskforce (The Australian Living Guidelines)

NPS Medicine Wise: COVID-19: Information to support healthcare professionals and consumers

SA Health: COVID-19 Mild illness: Treatments and Referrals

Molnupiravir PI

Australian Technical Advisory Group on Immunisation (ATAGI)

University of Liverpool COVID-19 interaction checker

COVID-19 Resources: NSW Therapeutic Advisory Group

World Health Organisation. Therapeutics and COVID-19: Living Guideline

Clinical Excellence Commission: Medication Safety Updates

Patient information

Clinical Excellence Commission: Information for patients and carers

Molnupiravir: Consumer Medicines Information

For more information

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