



# Covid Pill - Lagevrio

*Live document - updated 7 November 2021*

## General Information

This medicinal product **Lagevrio** is subject to additional monitoring to allow quick identification of new safety information. Temporary authorisation under Regulation 174 of Human Medicines Regulations 2012 [as amended] was granted by "*Medicines and Healthcare Products Regulatory Agency*" [MHRA] in November 2021. This medicine has been given 'conditional approval'. This means that more evidence is to be provided.

Each hard capsule of Lagevrio contains 200 mg of molnupiravir. Lagevrio is indicated for treatment of mild to moderate coronavirus disease - Covid 19 - in adults with a positive SARS-COV-2 diagnostic test and who have at least one risk factor for developing severe illness. The recommended dose of Lagevrio is 800 mg (four 200 mg capsules) taken orally every 12 hours for 5 days. The safety and efficacy of molnupiravir when administered for periods longer than 5 days has not been established. The safety and efficacy of Lagevrio in patients below 18 years of age has not been established: no data is available. No drug interactions have been identified based on the limited available data. No clinical interaction studies have been performed with molnupiravir.

Molnupiravir is hydrolysed to n-hydroxycytidine (NHC) prior to reaching systemic circulation. Animal studies with molnupiravir have shown harmful effects to the unborn animal. The new treatment targets an enzyme that the virus uses to make copies of itself, introducing errors into its genetic code. It has been suggested that exposure to molnupiravir can be mutagenic to host DNA during host DNA replication. There are risks for the host in that the same mutagenetic activity that impacts viral replication has the potential for incorporation and mutagenesis of host DNA. The concern would be that mutations in the host DNA could contribute to the development of cancer, or cause birth defects either in a developing foetus or through incorporation into sperm precursor cells.

The results of earlier clinical trials of molnupiravir on 775 patients are published in a press release: they have not yet been peer reviewed.

Lagevrio is not recommended in pregnancy: it has not been studied in pregnancy and it is not known if Lagevrio will harm the developing baby. Breast-feeding is not recommended during treatment and for 4 days after the last dose of Lagevrio as it is not known if Lagevrio can be transferred to the baby through breast milk. Animal lactation studies with molnupiravir have not been conducted.

There were no effects on female or male fertility in rats at NHC exposures approximately 2 and 6 times respectively, the exposure in humans at the recommended human dose [RHD].

Lagevrio has not been studied in paediatric patients. The pharmacokinetics of molnupiravir and NHC has not been evaluated in patients with hepatic impairment. Carcinogenicity studies with molnupiravir has not been conducted. No studies on the effects on the ability to drive and use machines have been performed.

The UK Government has not disclosed the cost of the treatment but US Authorities recently made an advance purchase of 1.7 million doses at a cost of \$1.2 billion, or \$700 [£513] for each patient.

### **List of excipients**

The active substance is **molnupiravir**. Each hard capsule contains 200 mg of molnupiravir. The other ingredients are:

1. Croscarmellose sodium (E468)
2. Hydroxypropyl cellulose (E463)
3. Magnesium stearate (E470b)
4. Microcrystalline cellulose (E460)

### **Capsule shell:**

1. Hypromellose (E464)
2. Titanium dioxide (E171)
3. Red iron oxide (E172)

### **Printing ink:**

1. Butyl alcohol
2. Dehydrated alcohol
3. Isopropyl alcohol

4. Potassium hydroxide
5. Propylene glycol (E1520)
6. Purified water
7. Shellac
8. Strong ammonia solution
9. Titanium dioxide (E171)

**Marketing authorisation holder**

1. Merck Sharp & Dohme (UK) Limited
2. 120 Moorgate
3. London
4. EC2M 6UR
5. United Kingdom

**Marketing authorisation number(s)**

PLGB 53095/0089 9.

**Date of first authorisation by MHRA / renewal of the authorisation**

Date of first authorisation: 4 November 2021

**Summary notes from M H R A Public Assessment Report [PAR]**

- Awaiting publication of PAR.

**Definitions****Pharmacovigilance**

Plays a key role in the healthcare system through assessment, monitoring, and discovery of interactions amongst drugs and their effects in humans.

**Pharmacokinetics**

Doses that are in a therapeutic range.

**Toxicokinetics**

Study of systemic exposure during toxicological experiments. Describes how a toxicant [i.e. a poison] enters the body and reaches a target tissue.

**Teratogenicity**

A teratogen is an agent that can disturb the development of an embryo or foetus. Teratogens halt the pregnancy or produce a congenital malformation [a birth defect]. Classes of teratogens include radiation, maternal infection, chemicals and drugs.

**Genotoxicity**

In vitro and in vivo tests designed to detect compounds that induce genetic damage e.g. damage to DNA.

**Carcinogenicity**

Ability or tendency to produce cancer.