COVID wave: What's the latest on antiviral drugs, and who is eligible in Australia?

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Australia is experiencing a fresh wave of COVID, seeing increasing cases, more hospitalizations and a greater number of prescriptions for COVID antivirals dispensed over recent months.

In the early days of the pandemic, the only medicines available were

those that treated the symptoms of the virus. These included steroids and analgesics such as paracetamol and ibuprofen to treat pain and fever.

We now have two drugs called Paxlovid and Lagevrio that treat the virus itself.

But are these drugs effective against current variants? And who is eligible to receive them? Here's what to know about COVID antivirals as we navigate this eighth COVID wave.

What antivirals are available?

Paxlovid is a combination of two different drug molecules, nirmatrelvir and ritonavir. The nirmatrelvir works by blocking an enzyme called a protease that the virus needs to replicate. The ritonavir is included in the medicine to protect the nirmatrelvir, stopping the body from breaking it down.

Molnupiravir, marketed as Lagevrio, works by forcing errors into the RNA of SARS-CoV-2 (the virus that causes COVID) as it replicates. As these errors build up, the virus becomes less effective.

This year in Australia, the XBB COVID strains have dominated, and acquired a couple of key mutations. When COVID mutates into new variants, it doesn't affect the ability of either Paxlovid or Lagevrio to work because the parts of the virus that change from the mutations aren't those targeted by these two drugs.

This is different to the monoclonal antibody-based medicines that were developed against specific strains of the virus. These drugs are not thought to be effective for any variant of the virus from omicron XBB.1.5 onwards, which includes the current wave. This is because these drugs recognize certain proteins expressed on the surface of SARS-

CoV-2, which have changed over time.

What does the evidence say?

As Lagevrio and Paxlovid are relatively new medicines, we're still learning how well they work and which patients should use them.

The latest evidence suggests Paxlovid decreases the risk of hospitalization if taken early by those at highest risk of severe disease.

Results from a previous trial suggested Lagevrio might reduce COVID deaths. But a more recent, larger trial indicated Lagevrio doesn't significantly reduce hospitalizations or deaths from the virus.

However, few people at highest risk from COVID were included in this trial. So it could offer some benefit for patients in this group.

In Australia, Lagevrio is not routinely recommended and Paxlovid is preferred. However, not all patients can take Paxlovid. For example, people with medical conditions such as severe kidney or liver impairment shouldn't take it because these issues can affect how well the body metabolizes the medication, which increases the risk of side effects.

Paxlovid also can't be taken alongside some other medications such as those for certain heart conditions, mental health conditions and cancers. For high-risk patients in these cases, Lagevrio can be considered.

Some people who take COVID antivirals will experience side effects. Mostly these are not serious and will go away with time.

Both Paxlovid and Lagevrio can cause diarrhea, nausea and dizziness. Paxlovid can also cause side effects including muscle aches and

weakness, changes in taste, loss of appetite and abdominal pain. If you experience any of these, you should contact your doctor.

More serious side effects of both medicines are allergic reactions, such as shortness of breath, swelling of the face, lips or tongue and a severe rash, itching or hives. If you experience any of these, call 000 immediately or go straight to the nearest emergency department.

Be prepared

Most people will be able to manage COVID safely at home without needing antivirals. However, those at higher risk of severe COVID and therefore eligible for antivirals should seek them. This includes people aged 70 or older, people aged 50 or older or Aboriginal people aged 30 or older with one additional risk factor for severe illness, and people 18 or older who are immunocompromised.

If you are in any of these groups, it's important you plan ahead. Speak to your health-care team now so you know what to do if you get COVID symptoms.

If needed, this will ensure you can start treatment as soon as possible. It's important antivirals are started within five days of symptom onset.

If you're a high-risk patient and you test positive, contact your doctor straight away. If you are eligible for antivirals, your doctor will organize a prescription (either an electronic or paper script).

These medicines are available under the Pharmaceutical Benefits Scheme (PBS) and subsidized for people with a Medicare card. The cost for each course is the standard PBS co-payment amount: A$30 for general patients and A$7.30 for people with a concession card.

So you can rest and reduce the risk of spreading the virus to others, ask your pharmacy to deliver the medication to your home, or ask someone to collect it for you.

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