

Antiviral medication for the treatment of seasonal influenza

What are influenza antiviral medications?

- Antiviral medicines to treat seasonal influenza are prescription medications that decrease the ability of influenza viruses to reproduce.¹
- Antiviral medication is a second line of defense in the treatment and prevention of influenza; annual influenza vaccination is the best form of protection.¹

Which antiviral treatments are available in Australia?

- Currently, three antiviral medicines to treat influenza are registered for use in Australia.³ These include:
 - Tamiflu (oseltamivir)
 - Relenza (zanamivir)
 - Symmetrel (amantadine)
- Oseltamivir and zanamivir are chemically related antiviral drugs known as neuraminidase inhibitors.⁴
- Symmetrel is one of a class of drugs known as adamantanes, which have been available for longer than neuraminidase inhibitors; however there are well established concerns about resistance for adamantane treatments.⁵
- A number of other antiviral medications are currently undergoing clinical trials and may become available in the future.⁶

Please note that the below information regarding antiviral treatments in Australia refers only to the neuraminidase inhibitors; as adamantane treatments are no longer widely used to treat influenza in humans.

How do antiviral medications work and are they effective?

- Antiviral medications are available on prescription and can limit the effect of influenza if they are taken early after onset (within 48 hours) of symptoms.¹
- If taken within 48 hours of the first symptoms appearing, antiviral medications can reduce both the severity and duration of influenza.¹
- A large oseltamivir study where treatment was commenced within 36 hours of onset of symptoms, showed that oseltamivir effectively reduces duration of influenza by about one third and lessening the severity of illness by 40%.⁷
- A phase III clinical trial found zanamivir effectively reduces influenza illness in adults on average by 1.5 days.⁸

What can be the side effects of antiviral medications?

Like all medicines antiviral treatments have both benefits and side effects and these can vary between individuals. Sometimes they are serious, most of the time they are not. You should speak with your doctor before making any decisions about prescription medication.

oseltamivir

- Most common side effects: nausea and vomiting which usually happens during the first two days of treatment. Taking oseltamivir with food can reduce the chance of experiencing these side effects.⁷
- People with influenza, including those taking oseltamivir may be at an increased risk of seizures, confusion, hallucinations and abnormal behaviour during illness.⁷
- Delirium has been reported during oseltamivir administration in patients with influenza, predominately in children and adolescents.³ The contribution of oseltamivir to those events is unknown; however, patients with influenza should be closely monitored for signs of abnormal behaviours through the treatment period.³

zanamivir

- The most common side effects of zanamivir are diarrhoea, nausea, sinusitis, runny or stuffy nose,⁸ bronchitis, cough, headache, dizziness, and ear, nose and throat infections.⁸

- Some people, mostly those who already had a chronic lung disease such as asthma, have reported serious breathing problems such as wheezing or shortness of breath after taking zanamivir.⁸

When should antiviral treatments be used and who should use antiviral treatments?

- Treatment with antiviral medication for seasonal influenza should only be considered where there is a reasonable probability that a person has been exposed to the influenza virus.⁹
- People who are at high risk of serious complications from influenza, especially elderly patients and people with underlying chronic medical conditions and their close contacts, may benefit most from antiviral medications.¹
- Antiviral treatments have been shown to reduce the severity and duration of illness of seasonal influenza in otherwise healthy adults if given early in the course of the illness (within 48 hours of developing symptoms).
- It is important that you see your GP immediately if you believe that you are suffering influenza and wish to reduce the severity and duration of your illness as the available treatments should be taken within the first 48 hours of symptom onset.
- The decision as to whether or not antiviral treatment is appropriate should be decided in consultation with your doctor.

How are antiviral medications different to cold and flu treatments?

- Many people with uncomplicated influenza use over-the-counter medicines because they believe these products can lessen their symptoms. These products are sometimes promoted for prevention or treatment of influenza, but may not have been tested for their actual effects against influenza.²
- In controlled clinical trials remedies such as vitamin C and Echinacea have failed to show any benefit in preventing influenza.³
- As prescription medicines, the effectiveness of antiviral treatments are supported by clinical trial evidence and are assessed and approved by the Government.

What is antiviral resistance and how does resistance occur?

- Antiviral resistance refers to when a virus has changed in such a way that the antiviral medicine is less effective in treating or preventing illnesses caused by the virus.¹⁰
- Influenza viruses constantly mutate as the virus makes copies of itself (called replication). Some mutations can result in the viruses being resistant to one or more of the antiviral treatments.¹⁰
- For a number of years there has been a high level of resistance among influenza A(H3N2) viruses to the class of antiviral medicines known as adamantanes (e.g. Symmetrel).¹¹
- Recently, resistance has been detected in the circulating influenza A(H1N1) family of viruses to the antiviral medicine oseltamivir.¹²
- To date there have been no reports or detection of influenza virus resistance to the antiviral medication zanamivir.⁸
- It is recommended that you speak with your doctor for more information on antiviral resistance or for any further information.

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