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## ANTIVIRAL DRUGS DURING AN INFLUENZA PANDEMIC

### What is influenza?

Influenza, or the "flu," is a common respiratory disease caused by a virus. Every year, the flu virus causes outbreaks in fall and winter. This is because each year, the flu virus changes a little so the protection, or immunity, our bodies have built up against previous viruses is not as effective.

### How is pandemic flu different?

Flu pandemics happen when a new kind of influenza virus that people have no immunity to appears, is able to spread easily from person to person, and spreads quickly around the world. Since people have no protection against the new virus, it will likely cause more illnesses and a larger number of deaths than the annual flu.

No one can predict exactly when a pandemic will happen, but it may be soon. That is why people and communities must prepare now, to ensure they are ready to respond when needed.

### What is an antiviral drug?

Influenza is a virus, which means drugs that work against bacteria, called antibiotics (such as penicillin), cannot be used against the flu virus. Instead, doctors may prescribe drugs called antivirals, which work well to prevent and treat the flu virus. Antiviral drugs must be prescribed by a doctor.

Based on recommendations from the World Health Organization, Canada and other countries are stockpiling antiviral drugs to be used to treat people during a pandemic. However the best way to use antivirals during a pandemic is uncertain at this time and will depend on the characteristics of the influenza virus causing the pandemic, and its response to the medication. At that time public health officials will be able to provide the best advice on the most efficient use of antivirals.

### What is oseltamivir (Tamiflu®)?

Oseltamivir, also called Tamiflu®, is a type of antiviral drug that prevents the spread of influenza virus in the body of infected persons. It is taken as a pill by mouth. Another similar drug, called zanamivir, is taken by inhaling the drug, which can be harder to take for some people and may cause some breathing difficulty. It is not yet widely available in Canada. The antiviral drug of choice during a pandemic may be oseltamivir.

Oseltamivir is approved in Canada to treat people one year of age and older who are already sick with the flu. It can also be prescribed for people 13 years of age and older as a way to prevent flu. Each oseltamivir pill costs about \$5.00, although the price may vary.

### Oseltamivir for treating flu

If you develop fever and cough during the flu season or a pandemic, or have another reason to believe you may have the flu, consider contacting your doctor as soon as possible, particularly if you are elderly, have a chronic medical condition or are otherwise at high-risk for the flu. Call your doctor ahead of time to let him or her know you think you may have the flu.

For oseltamivir to work best, it should be **started as early as possible within 48 hours of flu symptoms starting**. For **treatment** of the flu, you need to take oseltamivir **twice a day for at least 5 days**. It is always very important to finish taking all the drugs completely as prescribed even if you feel better. If you don't, it could lead to new viruses appearing that can resist the effects of the drug.

### **Oseltamivir for preventing flu**

To **prevent** getting the flu, you need to take oseltamivir **once a day during the time that you are likely to contact the flu virus, and until 5 days after the last possible contact**. During a pandemic, people taking oseltamivir to prevent infection may need to take the drug for several weeks. Although oseltamivir is not yet approved in Canada for use over a long period of time, health experts believe it is safe to take oseltamivir for up to six weeks. Taking it longer than that needs more study.

### **How should oseltamivir be stored and used?**

Oseltamivir pills should be stored in a dark dry place at room temperature until they are used. They must be kept safely away from children and persons who need assistance with their daily living activities. The expiry date of oseltamivir pills is typically up to five years after the pills were made. Always check the expiry date before using them. Only use the drugs if they are still within the expiry date stamped on the package, or if a doctor or pharmacist tells you they are still safe to use. Oseltamivir only works against influenza and does not work against any other causes of illness. **If you are ill, consult a doctor and only start taking oseltamivir if a doctor or pharmacist tells you it is all right to do so.**

### **What are the possible side effects?**

Unlike other antiviral drugs, side effects from oseltamivir are uncommon. Some people might get minor side effects such as upset stomach or vomiting. These side effects usually happen within one to two days of starting the drug but then go away. Taking oseltamivir with food can stop your stomach from getting upset. Very few people can have side effects like nosebleeds, red/sore eyes, cough, dizziness or ear symptoms, especially children. You should always report allergic reactions or side effects to your doctor right away.

### **Are there special considerations?**

Before taking oseltamivir, let your doctor know if you or anyone in your family has liver, kidney, heart or lung disease or other medical problems; are pregnant or planning on becoming pregnant; are breast feeding; or are taking any other medicines. For pregnant women, zanamivir may be the preferred antiviral drug because zanamivir is inhaled and does not circulate throughout the body, meaning it may be less likely to affect the unborn baby. Recommendations on taking antiviral drugs during a pandemic may change as more information is learned about the pandemic virus. Consult your doctor for the most current information on antiviral medications.

### **Will antivirals be available for everyone?**

Currently, there is only one manufacturer of oseltamivir worldwide. This means that this antiviral will be in short supply globally if a pandemic is declared. Antiviral drugs will likely not be available for everyone during a flu pandemic.

Officials across Canada are working to build up a stockpile of oseltamivir to use during a pandemic. However, this supply may not be enough for everyone during a pandemic. It will be given first to treat the most sick and to protect health and essential service workers.

Because there will not be enough antivirals for everyone, some professional and private organizations and workplaces, and even some citizens are considering buying their own doses ahead of time. Because these are prescribed drugs that require special handling and use, any purchasing of drugs before a pandemic is declared should be done under the guidance of a doctor.

**For more information**

For more information on pandemic influenza, see the following BC HealthFiles:

[#94a What is Pandemic Influenza?](#)

[#94b Staying Healthy During an Influenza Pandemic](#)

[#94c Self Care During an Influenza Pandemic](#)