

Chapter 10: Pandemic Self Care

Pandemic Self Care

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Chapter 10 Pandemic Self Care

1.0 Introduction

Renfrew County & District residents will need to have access to basic information on caring for individuals with influenza. This information may help with caring for a family member or providing self care. The information provided in chapter 10 outlines how people will know if they have influenza and basic advice on care.

2.0 Staying Well

2.1 Be Informed About Influenza

What is Influenza?

Influenza (flu) is an infection of the cells that line the lungs and airways (the respiratory system). In North America it usually affects people during the winter (November - April). It is caused by one of three types of viruses -Influenza A, Influenza B, or Influenza C. Influenza A usually causes the worst illness, Influenza B is more common in children, and Influenza C is rare. Only influenza A has been associated with pandemics.

The influenza viruses that circulate every winter are related to those from the preceding epidemics. These viruses spread among people with varying levels of immunity (body defences) following infections earlier in life. Over a period of 2 or more years, this circulation promotes the selection of new viruses that have changed enough to again cause epidemic infection among the general population.

At unpredictable intervals, "novel influenza viruses emerge, which are totally different from strains circulating the year before. If such viruses have the potential to spread readily from person-to-person, then more widespread and severe epidemics may occur, usually to a similar extent in every country within a few months to a year, resulting in a pandemic.

How is Influenza Spread?

Influenza is very contagious. People can pass the virus for up to seven days or more beginning from the day before they have the first symptoms of the illness. People breathe in the virus from particles in the air when they are around those who have the flu and have been talking, coughing, or sneezing. The virus can travel from 1 to 2 meters in the air. People can also become infected when they touch those who are ill (e.g., kiss them or shake their hand), or contact objects on which viruses have landed (e.g., telephones, door knobs, dishes, handrails), and then touch their own nose, mouth or eyes. It is especially easy for the virus to spread where there are crowds or where people live or work/study close together. The flu virus lives longer in cool, dry places. It can live for one or two days on hard surfaces, and 8 to 12 hours on cloth, tissue and paper.

What are the Symptoms of Influenza?

A person develops symptoms of the flu within one to three days after becoming infected with the virus. They suddenly develop a fever and possibly chills, and may have a headache and aching muscles, especially in the back and legs. They usually have a dry cough and feel weak and tired. Some people have a sore throat and a runny or stuffy nose. They probably won't feel like eating. In general, people feel very sick and want to stay in bed. The fever usually falls in three to five days, and the person begins to feel better. However, tiredness and a cough can sometimes continue for several weeks.

People often mistakenly refer to stomach upsets and colds as "the flu". Influenza is quite different from both of these. It rarely causes vomiting and diarrhea, but may do so in young children or elderly individuals. Unlike influenza, the common cold comes on gradually, rarely causes a fever, and is usually limited to a sore throat, coughing and sneezing, and a stuffy, runny nose. It is generally milder than influenza and people can carry on with their usual activities.

How Serious is Influenza?

Most healthy people recover from influenza without any serious problems. However, there are certain groups of people who are "at risk" of developing complications which can be very serious, and even cause death.

Some people, such as very young children and the elderly, are "at risk" because they have weaker body defences (immune systems). Pregnant women, particularly those who are in the second and third month of their pregnancies, have also increased risks of pneumonia, lung insufficiency, and death after influenza infections. Similarly, those with diseases such as cancer and HIV/AIDS, people who have had organ transplants and persons who take certain medications frequently develop complications.

Another group of people "at risk" are those who have chronic (long term) conditions such as heart disease, lung disease (asthma, cystic fibrosis, emphysema), kidney disease and diabetes. When a body system is not strong, it is easier for bacteria to invade the cells that have been damaged by the flu virus and cause other illnesses such as pneumonia. Influenza can also stress the body so much, that the underlying chronic illness may be worsened.

Children under the age of eighteen years and who have influenza should avoid taking acetylsalicylic acid (ASA), e.g., Aspirin, because they can develop a very serious illness affecting the nervous system and liver, called Reye's syndrome. It is important for parents of children who need to take ASA on a regular basis for a health problem, to discuss possible complications associated with influenza with their doctor, and find out what they can do to reduce the risk.

For More Information

If there is an outbreak of pandemic influenza in your community, watch the television or listen to the radio for up to date information, or access the Renfrew County & District website at www.rcdhu.com

If you have questions about somebody in your household that may have the flu, call the Health Info Line at 613-735-8666 or 1-800-267-1097 ext. 666.

2.2 Protect Yourself Against Influenza

Immunization

Vaccination is the best way to avoid or to lessen the severity of influenza.

The best way to protect your self from seasonal influenza is to get vaccinated every fall. The influenza vaccine (flu shot) is made from particles of killed flu viruses. It contains three different types of influenza viruses (two strains of influenza type A and one strain of influenza type B). Doctors and scientists around the world determine the strains of influenza virus that are circulating, and the vaccine is then prepared to protect against the types that are most likely to occur each year. A person who receives the flu shot develops immunity for the types of influenza in the vaccine. The body needs about two weeks to build up protection to the virus, and this protection may last for about four to six months. The influenza virus changes each year, so a different vaccine has to be used each year. It is important to get vaccinated for seasonal influenza. Although the pandemic strain will be a new strain of influenza, getting vaccinated protects individuals against seasonal strains. Seasonal immunization may also reduce the chances of genetic re-assortment of a new influenza virus.

The influenza vaccine is available free of charge to everyone who lives, works or attends school in the province of Ontario through physicians, workplaces and public health. Renfrew County & District Health Unit immunize individuals in public clinics throughout the county every year.

Who Should Get the Flu Vaccine?

In the event of a pandemic strain of influenza, it is estimated that it will take approximately four to six months to produce a suitable vaccine. Initially, there will not be enough vaccine for everyone. Ontario's goal is to obtain enough vaccine for the entire population but, during the early stages of a pandemic, vaccine will be in short supply. In this situation, the province will follow the national recommendations for priority groups for influenza immunization. During a pandemic, Ontario will use a strategy to ensure best use of available resources: influenza vaccine will be sent only to public health units. Renfrew County & District Health Unit will in turn organize mass vaccination clinics. People will attend the clinics to receive vaccination. RCDHU will make public announcements about the time and location of these clinics. The vaccine is safe for pregnant women, breast-feeding mothers and children. It is not effective for children under the age of 6 months.

If a person has a minor illness, they can still get the flu shot. However, tell your doctor if you have a temperature of 37.8 C (100 F) or more or if you have other symptoms (these may be symptoms of the flu).

Who Should NOT get the Flu Vaccine?

People who are severely allergic to eggs should not receive the vaccine, as viruses used in making the vaccine are grown in eggs. Rarely, a person has had an allergic reaction to some other ingredient in the vaccine, such as a raised itchy rash, swollen throat or tongue, red itchy eyes or possibly a swollen face within 12 hours of getting the injection. These people should not get the vaccine again.

If a person is "at risk" for getting serious complications from influenza and cannot be vaccinated, their doctor may wish to prescribe an antiviral drug to give them some protection during a pandemic. Antivirals stop the flu virus from multiplying. If you are allergic to the vaccine, it is a good idea to ask your doctor about this medication. He/she will need to consider your medical problems, available medications (the government will also define priority groups, if antivirals are in short supply), and possible side effects of the drug.

Doctors may also prescribe antivirals for:

1. People at high-risk even though they were vaccinated, if they need extra protection,
2. People who were vaccinated after the virus was present in the community, and need to be protected for the two weeks required for a response to the vaccine.
3. The public at large, if there is a pandemic and the vaccine with the pandemic strain is not available or is insufficient.

What Reactions do People have to the Flu Shot?

Some people think that they will get the flu from the flu shot. This is not possible, because the virus in the vaccine has been killed. The most common reaction to the flu shot is some redness and soreness where the needle entered the skin. This is usually gone in two days. Some people may develop a fever, tiredness and aching after six to twelve hours that may last for a day or two. More serious reactions are rare. The benefits and risks of this vaccine should be discussed with your vaccine provider as part of the informed consent process.

Hygiene

In addition to getting vaccinated, the single most important step you can take to prevent the flu is to wash your hands often.

Wash your hands often, especially after being in contact with someone who has a respiratory infection, or spending time with children who get the virus easily and are the main spreaders of the virus in the community. Do not shake hands. It is good for everyone to get into the habit of washing their hands before meals, after using the toilet, and after they cough or sneeze or blow their nose. The sooner children are taught this, the better. It is best to wash your hands with warm soap and water, scrubbing your wrists, palms, fingers and nails for ten to fifteen seconds. Rinse and dry with a clean dry towel.

Be aware of the times you rub your eyes or touch your nose or mouth, and try to avoid these habits. This can bring the virus into your airways if you have recently touched someone who has the flu, an object that they have used, or a surface on which the virus has settled.

Remember not to share eating utensils or drinks.

Don't visit people who have the flu unless it is absolutely necessary. If a member of your family has the flu, keep their personal items, such as towels, separate from the rest of the family. Clean surfaces (such as bathroom sinks and taps, kitchen sinks and counters) after the ill person has handled them. Wash hands after cleaning a child's nose.

Avoid large crowds.

Care for Your Self

Taking good care of yourself physically and emotionally strengthens your overall well-being and the ability of your body to fight off infections and to stay healthy. Not smoking is particularly important for the health of the lungs and airways, and drinking plenty of water helps to keep the airways moist and able to cleanse the system of unwanted material.

2.3 Plan Ahead

Spend a little time thinking about what you would need if you got the flu.

If you live alone, or are a single parent of young children, or are the only person caring for a frail or disabled adult, it might be a good idea to:

- Have enough fluids (juices, soups, etc.) on hand to last you and your family for 1-2 weeks.
- Have enough basic household items (e.g., tissues) to last for 1-2 weeks.
- Have acetaminophen and a thermometer in your medicine cabinet. Do you know how to use/read a thermometer correctly? If not, don't be shy about asking someone to show you how.
- Think of someone you could call upon for help if you became very ill with the flu and discuss the possibility with him or her.
- Think of someone you could call upon to care for your children if their school or daycare was closed because of the pandemic, and you were required to work, and discuss the possibility with them. If you cannot think of anyone who could help you in such a situation, you can call the Public Health Unit in your area to find out what is available in the community to help with these difficulties.

3.0 If You Are Unwell

3.1 Is It The Flu?

The most prominent characteristics of the flu are the sudden appearance of a fever (38°C or 100.4°F or more), a dry cough and aching in the body, especially in the head and lower back and legs. Usually the person feels extremely weak and tired and doesn't want to get out of bed. Other symptoms can be chills, aching behind the eyes, loss of appetite, a sore throat and a runny, stuffy nose. After your symptoms first appear you can spread the virus to others for 4-6 days or more.

3.2 What Can You Do For Yourself?

- Rest - you will probably feel very weak and tired until your temperature returns to normal (about three days), and resting will provide comfort and allow your body to use its energy to fight the infection. You should avoid contact with others while the infection is contagious (at least six days after the first symptom appears).
- Drink plenty of fluids -extra fluids are needed to replace those lost because of the fever (sweating). If your urine is dark, you need more to drink. Liquids, especially warm ones like chicken soup, help loosen mucus. Try to drink a glass of juice/water or an equal amount of some other fluid every hour while you are awake.
- Take acetaminophen or ibuprofen as recommended on the package to bring down your fever and ease your muscle pain (unless your doctor says otherwise). CHILDREN UNDER 18 YEARS OF AGE SHOULD NOT TAKE ACETYLSALICYLIC ACID (ASA) OR ANY PRODUCTS CONTAINING ASA. The combination of influenza and ASA in this age group has been known to cause Reye's syndrome, a very serious condition affecting the nervous system and liver. ANTIBIOTICS ARE NOT EFFECTIVE AGAINST INFLUENZA because it is a virus, and antibiotics fight bacteria. A hot water bottle or heating pad may also relieve muscle pain. A cup of Epsom salts in a warm bath may be soothing.

- Gargle with a glass of warm water to ease a sore throat. Sugarless hard candy also helps, as do lozenges.
- Use saline nose drops or spray (ones that contain salt water but no medicine) to help soothe or clear a stuffed nose. Try not to blow your nose as this could send infected secretions into your sinuses. Wipe your nose with disposable tissues and put them in the garbage can immediately. Cover your nose and mouth with tissues when you cough or sneeze and throw them in the garbage as well. Wash your hands often.
- Do not smoke or breathe second-hand smoke, as it is very irritating to the damaged airways.
- If you are a single parent, or you are responsible for the care of someone who is frail or disabled, you may need to call someone to help you until you are feeling better.
- If you buy medicine at the drug store to treat your symptoms (“over-the-counter” medications), check with the pharmacist to see if it is the best one for you. Mention if you have a chronic illness or are taking any other medicine. Take into consideration that:
 - Read the label to be sure that the ingredient treats the symptoms you have.
 - Extra strength remedies contain a higher dose of the ingredient. Try the standard dose first. It may work fine and not have the same risk of side effects.
 - Long acting medications tend to have more side effects than short acting medications.
 - Read the label and note any possible side effects or interactions with other drugs or health conditions.
 - It is better to buy a remedy that treats only the symptoms that you have. This way you are not taking in substances that are not useful, or that may trigger an adverse reaction.

Muscle pain and fever: Acetaminophen is a good choice because it causes less stomach irritation than other drugs. Acetylsalicylic acid should not be given to children under the age of eighteen.

A cough can be helpful if it gets rid of mucus. If a dry cough is keeping you awake, a cough suppressant, Dextromethorphan is safe and effective. If you need help loosening mucus, an expectorant such as Guaifenesin is good. It is not helpful to take a suppressant and an expectorant together.

A stuffy nose: Decongestants help shrink swollen blood vessels in the nose. There are two kinds pills and nose drops/sprays. Nose drops/sprays act in minutes. They work better and have fewer side effects than the pills. However, *they only work for 2 or 3 days, and then they make matters worse.* Oxymetazoline, Phenylephrine and Xylometazoline are nose drops/sprays. If your nose is still stuffy after three days, you may want to switch to the pills. The pills take 1/2 hour to work. They may cause dry mouth, sleep disturbances and other side effects. Pseudoephedrine is a decongestant in pill form.

Sore throat: Some medications work by numbing the throat. Dyclonine works the best. Others are Benzocaine, Hexylreorcinol, Menthol and Phenol. These are lozenges or throat sprays. Other lozenges act by coating the throat. They may contain honey, herbs or pectin.

Ingredients to avoid:

Phenylpropanolamine (PPA) has been linked with strokes.

Note: Older people may become much more sensitive to medications in general and may experience more side effects, especially to the nervous system (e.g., confusion). It is best to take no more than three or four medications at a time. This includes both prescription and over the counter drugs.

If you have any questions at all about medications, don't hesitate to talk to your pharmacist.

Generally, people begin to feel better after their temperature returns to normal, in about three days, and are ready to return to their normal activities/work in about a week. It is common for tiredness and a cough to linger on for several more weeks.

3.3 When To Seek Medical Attention

If you are a normally healthy person and have been suffering with the flu, it is time to call the doctor, Emergency Medical Services or a health help line if:

- You become short of breath while resting or doing very little;
- Breathing is difficult or painful;
- You are coughing up bloody sputum;
- You are wheezing
- You have had a fever for three or four days and you are not getting better or you may be getting worse;
- You have started to feel better, and suddenly you get a high fever and start to feel sick again;
- It is noted by yourself or others that you are extremely drowsy and difficult to wake up or that you are disoriented or confused;
- You have extreme pain in your ear.

Seek medical care as soon as possible, in order to prevent your condition from worsening. Bacteria may have invaded your damaged tissues. At this point your doctor may consider giving you an antibiotic.

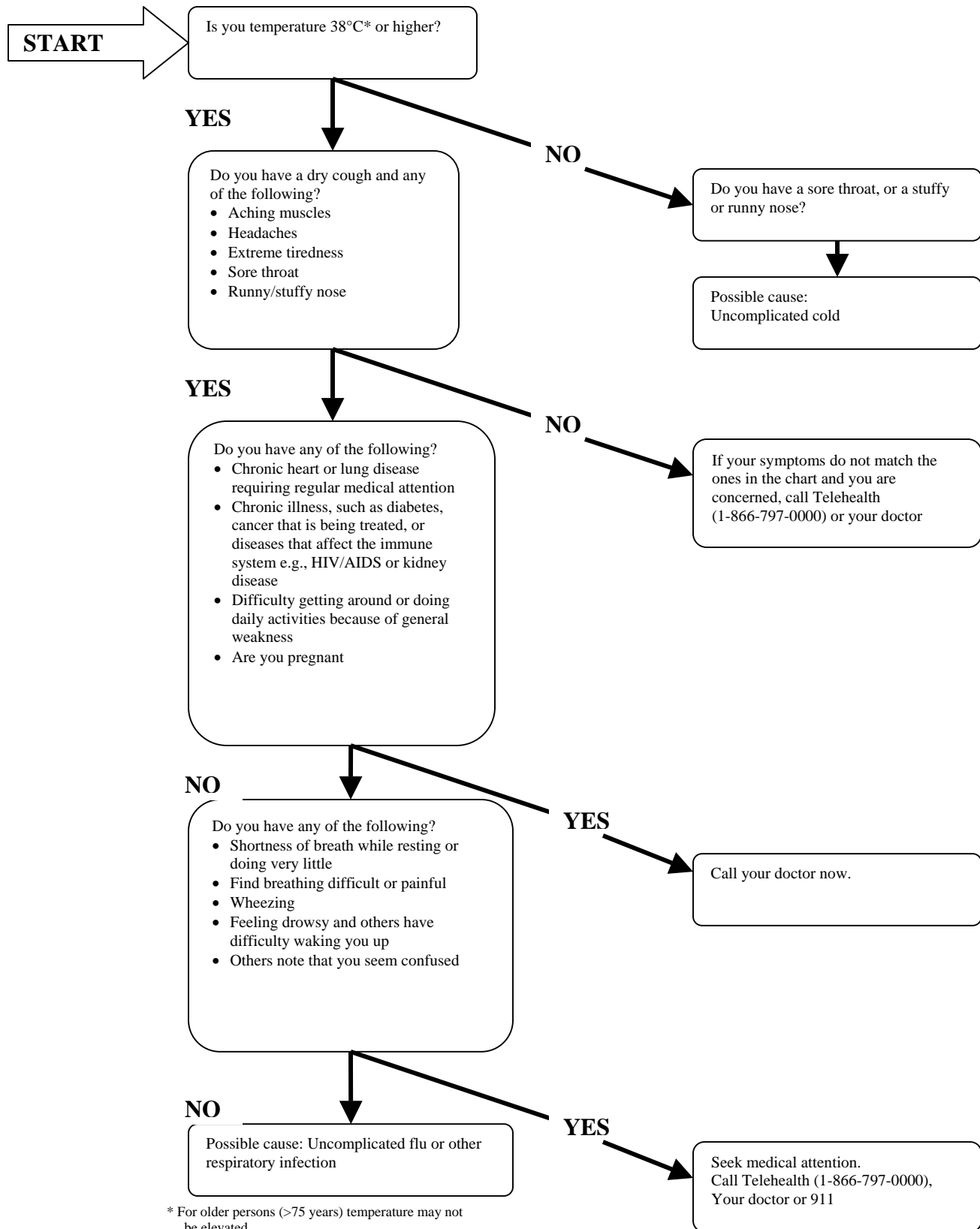
If you have heart or lung disease or any other chronic condition that requires regular medical attention, if you are frail, or if you have an illness or are on treatments or medications that affect your immune system and you get the flu, call your doctor. If you are living with a long-term illness, your doctor may suggest changes to your usual management routine and/or provide you with extra help in treating the flu and preventing complications e.g., antiviral drugs. These medications must be taken within 48 hour of the first symptoms to be effective so call your doctor right away.

What your Doctor May Prescribe:

Recently, drugs called antivirals have been developed which can fight viruses. *To treat influenza, they must be started within 48 hours of the first symptoms of the flu* the sooner, the better.

At the time of a pandemic, antivirals will likely be in short supply. The government will provide advise as to who should get antivirals as a priority. For example, persons with underlying chronic diseases may be one of the first groups to receive treatment with antivirals. If you are in a priority group and you have symptoms of the flu, you should call your doctor straight away. If you are a healthy person and have not been identified as being in a priority group for antivirals, you do not need to call your doctor unless you have the more severe symptoms listed above. See Figure 10.1: Decision making tool for seeking medical attention for adults

Figure 10.1: Decision Making Tool



3.4 When A Child Is Unwell

Older children and teens have the same symptoms of the flu as adults. Very young children and infants probably have similar symptoms, but do not know how to tell people they have sore muscles or a headache. These children may be irritable and eat poorly. They sometimes develop a hoarse cry and barking cough (croup). Younger children may also have diarrhoea, vomiting and stomach pain -especially children under 6 months.

Some of the things you can do for your child are:

- Give acetaminophen or ibuprofen every four to six hours for the fever in the dose recommended on the package (unless your doctor says otherwise). **DO NOT GIVE MEDICATION THAT CONTAINS ACETYLSALICYLIC ACID** (e.g., Aspirin, Bufferin etc.) Your pharmacist can provide advice on appropriate over-the-counter medications for treating fever.
- Do not expect to be prescribed antibiotics for uncomplicated influenza, as they will have no benefit. Antibiotics may be prescribed for complications of influenza such as pneumonia or ear infection.
- Dress the child in lightweight clothing and keep the room temperature at 20°C.
- Offer cool fluids frequently when the child is awake.
- Avoid cool baths.
- Allow the child to rest and stay at home if possible for 6 days or more, so the virus isn't spread to other children.
- Use salt-water nose drops to treat a stuffy nose.
- Teach the child to cover his/her mouth when coughing or sneezing.
- Throw away tissues as soon as you have wiped your child's nose.
- Wash your hands often and teach your child to do so after wiping the nose.

Take your child to the doctor if your child:

- Has heart or lung disease or any chronic illness requiring regular medical care
- Has a disease or is taking drugs or treatments that affect the immune system
- Takes acetylsalicylic acid (ASA) regularly for a medical condition
- Has trouble breathing
- Is less than 6 months old and has any temperature over 38.5 C
- Is constantly irritable and will not calm down
- Is listless and not interested in playing with toys
- Has a fever that lasts more than 5 days
- Drinks so little fluid that he/she is not urinating at least every 6 hours when awake
- Has vomiting for more than 4 hours, or has severe diarrhea
- Green or yellow nasal discharge does not mean a child has a bacterial infection needs antibiotics.

TAKE YOUR CHILD TO THE HOSPITAL EMERGENCY DEPARTMENT OR CALL 911 IF YOUR CHILD:

- Has severe trouble breathing not caused by a stuffy nose
- Has blue lips
- Is limp or unable to move
- Is hard to wake up, unusually quiet or unresponsive
- Has a stiff neck
- Seems confused
- Has a seizure (convulsion/fit)
- Has not had a wet diaper in 12 hours.