



An Infection Control Module:

PROTECTING YOUR CLIENTS DURING FLU SEASON



Developing Top-Notch CNAs, One Inservice at a Time

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THE “FACTS” ABOUT FLU SYMPTOMS

When Janelle woke up on Saturday morning she felt great. Her weekend to-do list was long, but she was ready to tackle her chores. By noon, she had already stripped the beds, finished three loads of laundry, mopped the kitchen and scrubbed the bathroom.

She felt a little tired when she sat down for lunch but didn't think much of it. After all, she had just done a lot of house work. Who wouldn't be tired? But as she sat a little longer, she began to feel strange.

She felt both **hot and cold** at the same time. A splitting **headache** ripped through her skull. Her back began to **ache**. She had an overwhelming feeling of **exhaustion**.

The to-do list was nagging at her, but Janelle gave up and went to her bedroom to lie down. She took some Tylenol and fell asleep.

Things weren't any better when Janelle woke up, so she got dressed and drove to the nearest Urgent Care. The doctor took one look at Janelle and was sure this was the flu. He swabbed her nose and ran a flu test to confirm his suspicion. The test was positive. Janelle had the flu.

Would you have recognized Janelle's symptoms as the flu? **Here are the “facts” about flu symptoms:**

Fever **A**ches **C**hills **T**iredness **S**udden onset.

People often describe flu symptoms as feeling like “being hit by a freight train.” This is because the symptoms are extremely intense and they can come on suddenly, without any warning at all.

Keep reading to learn all about the dangerous and sometimes even deadly flu. You'll find out what symptoms to look for and when to seek help. You'll discover ways to treat the symptoms and what complications may arise. You'll also learn how to prevent the flu in both yourself and your clients.

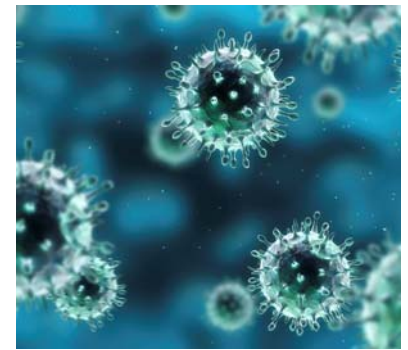


THE SYMPTOMS OF THE FLU

With some illnesses, the symptoms appear gradually. With the flu, symptoms occur very quickly and intensely. Usually, the worst of these symptoms last from three to five days, although in high-risk clients they may last much longer. Here are the symptoms to watch out for in your clients (and yourself):



- A **fever**, usually higher than 101° F, but sometimes reaching as high as 106° F!
- **Body aches**, generally in the head, back, and limbs.
- A persistent **sore throat**.
- **Chills**.
- Extreme feelings of **weakness** and/or **fatigue**.
- A painful dry **cough**.
- Flushed, warm skin and watery red eyes.
- A **runny or stuffy nose**.



The Facts

- The flu is a highly contagious respiratory illness caused by a virus that infects the nose, throat, and lungs.
- The flu can cause mild to severe illness and at times can lead to death.
- The best way to prevent the flu is by getting a flu vaccine each year.
- You can pass the flu to someone else before you even know you are sick. You can infect others beginning one day *before* symptoms develop and for 5 to 7 days *after* becoming sick.
- Every year in the United States, more than 200,000 people are hospitalized from flu complications and nearly 30,000 people die from flu.
- About 90% of flu deaths occur in persons aged 65 years and older.

WHEN IS THE FLU AN EMERGENCY?

Generally, the flu can be managed with medication, fluids and rest. However, there are times when the symptoms of the flu become dangerous. Seek emergency medical attention if you or your client experiences:

- Difficulty breathing or shortness of breath.
- Purple or blue color of the lips.
- Pain or pressure in the chest.
- Sudden dizziness or confusion.
- Severe or persistent vomiting.
- Seizures.

WHAT'S NEW?

Grab your favorite highlighter! As you read this inservice, **highlight five things** you learn that you didn't know before. Share this new information with your co-workers!



WHAT ELSE COULD IT BE?

Is it a cold, the flu, pneumonia or a stomach bug?

	ONSET	SYMPTOMS	DURATION
THE COMMON COLD <i>(Caused by a virus)</i>	Symptoms are usually mild and begin gradually , one to two days after coming in contact with the virus.	<ul style="list-style-type: none"> Scratchy or sore throat. Congestion or runny nose that begins as the sore throat improves. Cough that begins as congestion improves. Productive at first, then tight and dry. 	The worst symptoms of a cold usually only last about 3 days. The cough may linger for a week or longer.
THE FLU <i>(Caused by a virus)</i>	The onset of flu is sudden . The person might feel well in the morning and then feel extremely ill in the afternoon.	<ul style="list-style-type: none"> High fever. Sore throat, cough and congestion. Head and body aches. Weakness and fatigue. Flushed, warm skin and watery red eyes. 	Flu symptoms can last from 2 days to 2 weeks depending on the strain of the virus and the health of the person infected. Complications can prolong the duration.
PNEUMONIA <i>(Can be caused by a bacteria, virus fungus, or even a foreign object like food or vomit.)</i>	Onset depends on the cause of the pneumonia. Bacterial pneumonia, comes on suddenly —usually right after having another illness such as the flu or a cold.	<ul style="list-style-type: none"> Wet cough. Chest pain. Fever. Chills. Shallow, quick breathing Rapid pulse. 	Typically, pneumonia will stick around between 3 and 10 days. The severity of the illness and the duration depend on the person's age, their immune system and their ability to comply with treatment.
A STOMACH BUG <i>(Could be food poisoning caused by a bacteria, or viral infection like rotavirus or norovirus.)</i>	Symptoms of food poisoning can come on quickly, within a few hours of eating a tainted food. Symptoms of norovirus can develop 12 to 48 hours after exposure.	<ul style="list-style-type: none"> Nausea and vomiting. Diarrhea. Stomach cramps. Fever. Headache. Dehydration may develop. 	Food poisoning usually only lasts about 24 hours. Symptoms of Norovirus can last up to 3 days.



DID YOU KNOW?

There are three major types of the influenza virus:

Influenza A is the most common type and spreads the most epidemics. The 1918 “Spanish Flu” was caused by this strain of the virus. You may have also heard of bird flu, avian flu or terms like H5N1. These are all type A influenza strains.

Influenza B also spreads epidemics, although, they tend to be more localized within a community rather than spreading across the globe.

Influenza C is the most stable of the three strains. While A and B are always changing, Influenza C stays constant and is far less common. The symptoms produced by Influenza C are very mild.

Whatever the type, the flu virus is always changing, and scientists are forced to predict and change the vaccine every year to cover the strains most likely to cause infections.

HOW IS THE FLU DIAGNOSED?

If you or your client has symptoms of the flu, it’s best to get checked by a doctor **as soon as symptoms appear**. Some doctors will diagnose flu based on symptoms alone, especially if it’s flu season and/or the person has clearly been exposed to someone else with the flu.

Most doctors will diagnose the flu is by performing a “Rapid Flu Test” which can be done in about 15 minutes in most doctor’s offices.

First the doctor or nurse will swab the back of the throat or the inside of the nose of the affected person. Then that sample will be mixed with a chemical and a drop or two is placed on a test strip.

Just like a pregnancy test, there will be a “control” line that shows the test is working. Then there will be a place for a line to appear if the test is positive. If the line appears, it confirms that the person has the flu.

Some rapid flu tests can even determine if the person has flu strain A, B or a combination of both.



OKAY, IT’S POSITIVE. NOW WHAT?

You know the old saying, “There is no cure for the common cold.”? Well it’s the same with the flu. There’s no cure!

There are plenty of things you can do to *relieve* the symptoms of the flu (see page 4), and there are two common anti-viral drugs doctors may prescribe that can **decrease the duration** of the flu. Two common anti-virals are:

- **Tamiflu**, which is given in a pill form, twice a day for five days, and
- **Relenza**, which is inhaled twice a day for five days through a device called a Diskhaler.

Both drugs work best if **given within 48 hours** of the onset of flu symptoms. That’s why it’s important to see a doctor as soon as symptom appear.

Are there any side effects?

Possible side effects include nausea, vomiting and diarrhea. Less common side effects include dizziness and confusion.

- Both medications can be taken with food or milk to minimize stomach upset.



EASING THE SYMPTOMS OF THE FLU

Not everyone who gets the flu will get a prescription for an anti-viral. Some people may not want them; others may not be able to take them for other health reasons. But, when it comes to treating the symptoms of flu, it doesn't matter!

Remember, ***anti-viral medications don't treat the symptoms of the flu***, they only shorten the duration of the illness.

Here are some things you can do to ease your client's flu symptoms:

- Encourage your client to get plenty of rest.
- Serve clear fluids like water, broth, tea or electrolyte beverages (such as Pedialyte) to prevent dehydration.
- Place a cool, damp washcloth on the forehead, arms, and legs to reduce discomfort associated with a fever.
- Run a cool mist humidifier in the room to make breathing easier.
- Provide salt water gargles to soothe a sore throat. (To make: dissolve one half teaspoon of salt in 6 ounces of warm water.)
- Cover clients with a warm blanket to ease chills
- Cough drops and throat lozenges can temporarily relieve coughing and sore throat. Be sure to discuss the use of any cough medicines your client takes with the doctor or nurse. Some cough medicines can do more harm than good.
- Fevers and aches can be treated with over the counter pain relievers such as acetaminophen (Tylenol) or ibuprofen (Advil, Motrin). Clients with kidney disease or stomach problems should check with the doctor or nurse before taking any of these.
- Encourage clients who smoke to limit their intake. Cigarette smoke damages the respiratory system and can make the flu much more severe. If nicotine addiction is a problem, talk to your client (and the nurse) about nicotine replacement products, like a patch or gum. These may be useful, at least until the flu symptoms subside.
- Excess consumption of alcohol is also a problem with the flu. Alcohol can destroy the liver—which is the body's mechanism for filtering out germs. When the liver is overworked, the chances increase for developing a serious complication of the flu.



THINK ABOUT IT!

WHO IS AT RISK?

Although anyone can get the flu, some people have a much higher risk of getting it than others. Here are a few examples of people who are more likely to get the flu:

- Adults and children with chronic diseases such as heart disease, asthma, cystic fibrosis, kidney disease, or diabetes.
- Anyone over 50 years old.
- Elderly clients who live in nursing homes or long term care facilities.
- People who have weakened immune systems (like clients receiving chemo or those with HIV/AIDS).
- People who provide essential community services, such as policemen and firefighters.
- Any person working in a healthcare institution, including **YOU!**



THE NEXT STEP!

SHOULD HEALTHCARE WORKERS BE REQUIRED TO GET A FLU SHOT?

Healthcare employers and professional societies agree that healthcare workers (HCWs) *should* be vaccinated against influenza.

Vaccinations protect HCWs who are exposed to sick people all day long.

And, vaccinations protect vulnerable clients because young, healthy HCWs can carry the flu virus without having any symptoms at all. That means they can make clients sick without even knowing it.

- ***But should vaccinations be mandatory? Why or why not?***
- ***Is the flu vaccine mandatory at your job?***
- ***Discuss your answers with your co-workers and supervisor to find out what they think.***

PREVENTING FLU WITH VACCINES

No matter what your age, a flu vaccine is always beneficial. It is the best way to prevent influenza and to avoid all of the complications that can come from having the flu.

HOW WOULD YOU LIKE THAT DELIVERED?

Today, there are more options than ever when it comes to getting a flu vaccine. Here are a few:

- **Traditional shot.** This is the shot that goes into a large muscle, usually in the upper arm (or in the thigh, for babies). It's approved for anyone over the age of 6 months.
- **Intradermal shot.** This method uses a shorter needle and just goes in the top layer of fat. It's similar to getting an insulin shot. This method is approved for anyone 18-64.
- **High dose shots.** High dose flu shots are four times stronger than regular flu shots. Their job is to create a stronger immune response in the person. This type of vaccine is given in a large muscle, like the traditional shot and is recommended for people over the age of 65.
- **Recombinant shots.** This high tech vaccine is created using DNA technology. It is approved for people 18-49 with severe egg allergies.
- **Nasal Mist.** This is delivered as a spray in the nose. It protects against four strains of the flu (traditional shots only protect against three strains). It is approved for anyone between the ages of 2 and 49. However, it is not approved for pregnant women.

HOW DO FLU VACCINES WORK?

The flu vaccine works by tricking the body into thinking it has the flu. The body's natural defense system recognizes the material in the shot as the flu virus and begins building antibodies. Antibodies are specialized little workers that are created specifically for the job of knocking out any flu virus that comes into the body. So, once the antibodies are created (within 2 weeks of getting the vaccine) the body is fully protected against the flu.

IS IT SAFE?

- **Mild reactions** to the flu shot are fairly common but only last a day or two. They include soreness, redness, or swelling at the site where the shot was given; a low grade fever; mild body aches.
- **Life-threatening allergic reactions** are very rare. If they do occur, it is within a few minutes to a few hours after the shot. Watch for these signs of an allergic reaction: difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness. Report any problems to your supervisor immediately.

HOW TO PREVENT THE SPREAD OF FLU

The common cold virus and the flu virus are both spread in two ways—through the air and by direct contact:

1. Cold and flu viruses travel in **droplets**. So, they can spread up to 6 feet through the air (from one person to another) when someone sneezes or coughs without covering his or her face. And,
2. Both viruses can also spread through **direct contact** with germs. For example, if someone with a cold or the flu wipes his nose and then touches a doorknob, the next person to touch the doorknob is at risk for picking up that germ.

So, during flu season, you can safely assume the germs are in the air and on everything you touch! It's a bit extreme, but it will help you to remember to take all of the following precautions to prevent the spread of the flu!

- **Practice Respiratory Hygiene and Cough Etiquette.** This precaution requires that anyone (staff, clients, visitors, family members) with a cough or cold symptoms to **cover their noses and mouths** with a tissue or the inside of the elbow when coughing or sneezing. All tissues must be properly disposed after one use.
 - Be sure to make tissues and waste baskets conveniently available to yourself and others during cold and flu season.
- **Wash your hands.** Washing your hands often will help protect you and your clients from the flu. (Encourage your clients to wash their hands, too.)
- **Avoid touching your eyes, nose or mouth.** Your eyes, nose and mouth are the are the easiest places for germs to enter your body.
- **Clean and disinfect frequently touched surfaces.** Doorknobs, telephones, sink handles, light switches, keyboards and tabletops in public spaces are popular hangouts for germs! Studies have shown that flu viruses can survive for up to 8 hours on these types of surfaces.
- **Stay home when you are sick.** You are younger, stronger and healthier than the clients you care for. If you are sick, stay home! It's not fair to expose your weaker, immune-compromised clients to your germs.



CONNECT IT!

REMEMBER YOUR PRECAUTIONS!

What precautions should you follow to keep yourself and your clients safe during a flu outbreak? (check all that apply)

- A. Contact precautions
- B. Droplet Precautions
- C. Airborne precautions
- D. Extended Airborne Precautions
- E. Respiratory Hygiene and Cough Etiquette.
- F. Standard Precautions

List the steps you would take to follow flu precautions.

Answer: A, B, E and F. Gown and gloves with client and in client's environment. Mask within 3 feet of a client with the flu. Wash hands before and after all interactions with clients. Cough into tissue or elbow.



Best UNTRUE Excuses...

...for not getting a flu shot:

- **"The vaccine gives me the flu."** It is impossible to get flu from the influenza vaccine.
- **"I never ever get the flu, so I don't need the vaccine."** There's always a first time!
- **"Only old people get the flu."** The flu is highly contagious and affects people of all ages.
- **"I can prevent or cure influenza by taking vitamin C and other home remedies."** Home remedies neither prevent nor cure influenza.
- **The flu really isn't that serious.** Each year, influenza kills 30,000 people and leads to hospitalization of 200,000 in the US.
- **"Last year, I had the vaccine and I got the flu anyway."** The vaccine is not perfect and you may still get the flu...but it will be a milder case.

GET YOUR FLU SHOT!

RECOGNIZING COMPLICATIONS

There's always a chance that the flu can cause more serious health problems, often called "**flu complications.**"

- Reports indicate that at least 200,000 people are hospitalized for complications of the flu each year.
- When you hear about deaths related to the flu, it's most likely that the people have died from *complications* of the flu—not the flu itself.
- As many as 50 thousand people worldwide will die from flu-related complications each year.

Here are few common flu complications and their symptoms:

- **Pneumonia.** Pneumonia is the most common and a very serious flu complication. It can develop from getting the actual flu virus in the lung or when a bacterial infection develops during the course of the flu.
 - Pneumonia can develop during the course of the flu or even just as the person is starting to feel better. Report right away if your client develops chest pains, sweating, cough with green or bloody mucus, increased pulse, and/or bluish colored lips or nails.
- **Worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes.** The stress placed on the body during a flu infection can make the symptoms of chronic illnesses much worse.
 - Monitor the heart and blood pressure of clients with heart problems during a flu episode.
 - Carefully watch breathing rates, patterns and sounds (like wheezing) in clients with asthma.
 - Blood sugar may be more difficult to control for diabetics during a viral illness like the flu.
- **Sinus infections.** Pressure or pain around the face and eyes, thick, yellow, foul-smelling nasal discharge and a headache all point to a possible sinus infection.
- **Ear infections.** Although ear infections are more common in children, anyone can get one after a respiratory illness like the flu. Pain, a feeling of fullness in the ear or trouble hearing can all be signs of an ear infection.
- **Dehydration.** Dehydration is more common in the elderly. Symptoms of dehydration include:
 - Decreased urine production (normal output is once every 3 to 4 hours).
 - Dry, sticky mouth.
 - Loss of skin elasticity (skin that is pinched stays "tented" instead of snapping back to its normal position).

WHO IS MOST AT RISK FOR COMPLICATIONS? Adults over 50, children from 6 months to 4 years, nursing home residents, adults and children with heart or lung disease, people with compromised immune systems (including people with HIV/AIDS), and pregnant women.



FIVE KEY POINTS!

REVIEW WHAT YOU LEARNED!

1. Know the “facts” about flu symptoms:
Fever
Aches
Chills
Tiredness
Sudden onset.
2. If you suspect the flu, it’s best to get checked by a doctor as soon as symptoms appear so anti-viral medications can be started.
3. Anti-viral medications don’t treat the symptoms of the flu, they only shorten the duration of the illness.
4. No matter what your age, a flu vaccine is the best way to prevent influenza and to avoid all of the complications that can come from having the flu.
5. The common cold virus and the flu virus are both spread in two ways—through the air in droplets and by direct contact.

COMMON FLU MYTHS AND FACTS

FACT: *It is impossible to get the flu from the flu vaccine.*

- Some clients may be afraid of getting vaccinated because they believe they might catch the flu. However, the influenza vaccine contains strains of the vaccine that have been killed and split and can only protect you from the disease—not cause it.

FACT: *The flu can be prevented.*

- The best and most accurate way to prevent influenza is to get vaccinated. Vaccinations have the power to reduce the annual number of elderly deaths drastically.

MYTH: *People who are allergic to eggs can't get a flu shot.*

- It’s true that flu shots contain strains of the influenza virus grown in eggs, but solid research shows that a reaction to the shot by someone with egg allergies is **rare**. People with mild egg allergies (those who only get hives) can get the regular flu shot. People with severe allergy to eggs (severe breathing problems) can request a new FDA approved egg-free flu vaccine.

MYTH: *Having an upset stomach could mean that you are getting the flu.*

- While some clients may become queasy or sick to their stomach with the flu, it is not a common symptom—and what we call “stomach flu” is not really influenza.

MYTH: *Being exposed to cold weather can cause a cold or influenza.*

- Large epidemics of the flu do occur during the winter months, but not because of the weather. According to scientists, the months between November and April are simply when the virus is most active and most likely to spread.

MYTH: *Feed a cold, starve a fever.*

- People with the flu (or a cold) and a fever, need more fluids. But there's no reason to increase or decrease how much is eaten. Even if the appetite is poor, "starving" the sick person will accomplish nothing. And poor nutrition can make recovery slower.

MYTH: *It is not necessary to be vaccinated annually.*

- The flu virus is constantly changing. Every year the vaccine is adapted to fit the new strain of the virus. Last year’s vaccine will **not** protect you from this year’s flu bug.



FINAL FLU Q & A

WHEN AND WHERE DOES THE FLU STRIKE?

The flu virus can occur anywhere around the world. It doesn't matter if you live in a warm or cold climate. Even with new technology that monitors influenza cases around the world, epidemics are usually very sudden and unexpected.

The most likely time for an epidemic to occur in the United States is between November and April. However, there have been many cases of the flu reported in October and the summer months.

WHO SHOULD NOT GET THE FLU VACCINE?

- Anyone younger than 6 months old should not get the flu shot.
- Anyone who has previously had a severe reaction to the vaccine, should not get the flu shot.
- Someone who has a fever or is severely ill at the time the shot is scheduled should probably wait until he or she has recovered before getting the influenza vaccine.
- Anyone who has ever had Guillain-Barré Syndrome (a severe paralyzing illness, also called GBS) should discuss the risks involved in getting a flu shot with their doctor.

IS THE SWINE FLU A THING OF THE PAST?

Well, swine flu is actually part of our past, present—and probably—our future. Strains of flu stemming from pigs are not new; in fact, swine flu was first diagnosed in the 1930s. But, this type of virus has come to the forefront in the last few years. In 2009, we had the H1N1 swine flu. That nasty "bug" killed more than 12,000 people in the U.S. and more than 25,000 people worldwide. Unlike the seasonal flu, the H1N1 virus killed many *healthy* people under the age of 65.

HOW MANY TIMES CAN ONE PERSON BE INFECTED WITH THE FLU VIRUS?

It is unlikely for someone to get infected with the same exact strain of influenza (flu) more than once, but it is possible to get the flu more than once in a season. This is because several different strains of flu virus "make the rounds" each year—and they are constantly changing. Exposure to a particular strain of flu virus may help protect you against that specific bug in the future. But, it will not protect you from infection with other flu virus strains.



WHAT I KNOW NOW!

Now that you've read this inservice on protecting clients from the flu, jot down a couple of things you learned that you didn't know before.
