



A Client Care Module:

IMPORTANT VACCINES FOR OLDER ADULTS

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Developing Top-Notch CNAs, One Inservice at a Time

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A Client Care Module:

Important Vaccines for Older Adults

DORIS DEVELOPS PNEUMONIA

Doris was an 86 year old woman who lived at home with her adult daughter. Although she had arthritis, her health was good and she remained independent.

Then, one day Doris woke up at 3:30 in the morning feeling sicker than she had ever felt before. She called her daughter to the room. She had a fever of 102.3 but was shaking and complaining of feeling cold. She was coughing and having difficulty breathing. She complained of chest pain that got worse with every breath.

Doris's daughter called 911. The ambulance arrived and whisked Doris off to the hospital.

Later that day, Doris was diagnosed with bacterial pneumonia. The doctor told them that it was caused by a **pneumococcal** germ, which he explained was the most common cause of bacterial pneumonia.

The doctor started antibiotics and ordered oxygen for Doris, but it was not enough. She had to be moved to the ICU and placed on a ventilator.

While on the ventilator, Doris developed a tension pneumothorax (or collapsed lung) so the doctor inserted a chest tube.

Within 24 hours, it became clear the Doris could not fight the infection. Her lungs were not recovering from the pneumothorax and she was not getting enough oxygen to sustain life. Doris died later that night.

Sadly, Doris's death could have been easily **prevented** with a simple and safe **vaccine** called Pneumovax 23. It's a vaccine that prevents pneumococcal infections like the one that settled into Doris's lungs.

The CDC recommends all people over the age of 65 receive the Pneumovax 23 vaccine. The vaccine has been available in the United States for more than 20 years, yet only *half* of all seniors report ever receiving it.

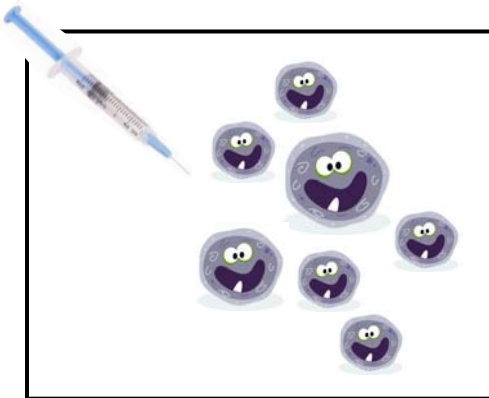
Keep reading to learn all about preventing diseases with vaccines and the importance of vaccines for older adults.



HOW DO VACCINES WORK?

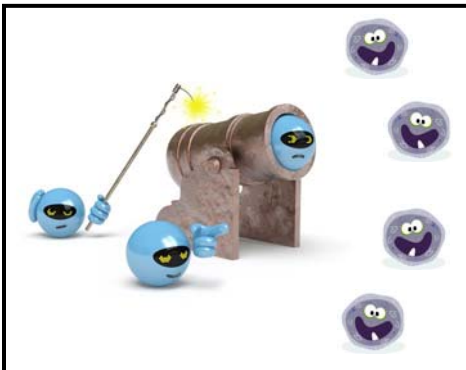
Remember the days when parents would purposely expose their children to chickenpox? The reason they did that forms the basis of how vaccines work.

Once the child got sick with chickenpox, he or she would develop immunity—and never get sick from it again. Vaccines use the same idea but you don't have to get sick to develop immunity!



FIRST! A weakened form of the disease is injected into the body.

- Since the germs are weakened forms of the disease (killed or inactive), the person does not actually get sick from the germs.



NEXT: The body notices the foreign invaders (also called **antigens**) and responds by developing proteins called **antibodies**.

- The antibodies fight the infection by killing the antigens.



FINALLY: The body stores up these antibodies so they are available to fight off the disease if the person is ever exposed again.

- This is when the body is said to be **immune** to the disease.

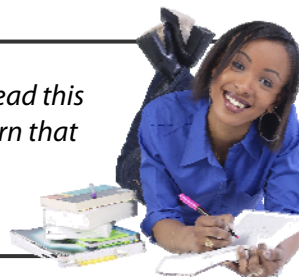


The Facts

- There are over 200,000 hospitalizations from influenza on average every year.
- An average of 36,000 Americans die annually due to influenza and its complications. Most are people 65 years of age and over.
- There are over 40,000 cases of invasive pneumococcal disease in the U.S. and approximately one-third of these cases occur in people 65 and older.
- Over half of the more than 5,000 annual deaths from invasive pneumococcal disease occur in persons 65 years of age and older.
- The benefits of vaccines are well known. The risks associated with being unvaccinated are clear. Yet, nearly half of all older adults report that they have not received vaccinations for flu, pneumonia, meningitis, or shingles.

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!





DID YOU KNOW?

Many people confuse the common cold with the flu, especially during flu season.

Here's how you can tell the difference:

- **Colds** usually begin with a sore throat, runny nose, and a cough. Fever is uncommon in adults, but a slight fever is possible. Children are more likely to have a fever with a cold.
- **Flu** symptoms are usually more severe than cold symptoms and come on quickly. Symptoms of flu include sore throat, fever, headache, muscle aches, fatigue, congestion and cough.

It's important to recognize the symptoms of the flu in older adults because complications can be deadly.

FOCUS ON THE FLU VACCINE

What does this vaccine protect against?

The flu vaccine protects against certain types of influenza virus. Each year, researchers around the world collect and study flu viruses. The flu vaccine that is developed each year protects against the viruses that research indicates will be most common during the season.

How is it spread?

The flu is spread by coughing, sneezing, or nasal secretions.

What are the symptoms?

- Fever/chills
- Sore throat
- Muscle aches
- Fatigue
- Cough/congestion
- Headache

Why do seniors need this vaccine?

People aged 65 and older, and those with certain health problems—such as heart, lung or kidney disease, or a weakened immune system—can get much sicker from the flu than younger and/or healthier people.

The CDC estimates that 90 percent of flu-related deaths and more than 60 percent of flu-related hospitalizations in the United States occur in people 65 years and older.

How is the vaccine given?

There are two types of influenza vaccine: a shot (given by injection) and a mist (sprayed into the nostrils). Although mist may be more appealing or less painful, it is not recommended for people over 50 years of age.

In addition to the regular flu vaccine, the FDA has approved a “high-dose” influenza vaccine just for people 65 years of age and older. The one-time a year, high dose vaccine contains *four times* the amount of antigen (the part of the vaccine that causes the body to produce antibodies) of regular flu shots.

As people age, the ability to have a good immune response to the flu vaccine declines. This places older adults at a greater risk for developing influenza. A higher dose of antigen helps create a better immune response.

Are there any side effects?

The flu vaccine that is given as a shot **does not** contain live virus! This means it **cannot give patients the flu**. Most people who receive the flu shot have minimal or no side effects. However, there is a possibility for pain, swelling or redness at the site of the injection as well as headaches, muscle aches and/or mild fever.

SPOTLIGHT ON THE SHINGLES VACCINE

What does this vaccine protect against?

This vaccine protects against outbreaks of shingles—or can make the pain associated with shingles much less.

Shingles is caused by the same virus that causes chickenpox. Only someone who has had chickenpox can get shingles. The virus stays in the body and can cause shingles many years later.

How is it spread?

You cannot “catch” shingles from someone. However, young children who have not been vaccinated for chickenpox and adults who have not had the chickenpox disease or the vaccination CAN get chickenpox from someone with Shingles.

What are the symptoms?



Shingles causes a painful, blistering skin rash that usually appears on one side of the face or body and lasts from two to four weeks. **The main symptom is pain** which can last long after the rash is gone.

The symptoms of shingles may also include fever, headache, chills and upset stomach. Very rarely, a shingles infection can lead to pneumonia, hearing problems, blindness, brain inflammation (encephalitis) or death.

Why do seniors need this vaccine?

It is estimated that people age 65 and older are more than **seven times** as likely as younger people to develop shingles. It is also more common in people whose immune systems are weakened because of a disease such as cancer, or drugs such as steroids or chemotherapy.

How is it given?

The shingles vaccine is given as a single dose injection to people aged 60 or older. It can be given at the same time as other vaccines, like a flu shot.

Are there any side effects?

Side effects are rare with this vaccine. One in three people report redness, soreness, swelling or itching at the site of the injection...and one in 70 people report a mild headache.



GET BUSY!

WHAT'S THE HOLD UP?

The shingles vaccine is proven to be safe and effective. And, the benefits of preventing disease versus the cost of treating a disease are well known.

So, why aren't ALL seniors running out and getting the shingles vaccine?

COST. Merck (the maker of the vaccine) charges about \$150 for the vaccine. Doctors and hospitals charge a mark-up, so the total bill can come close to \$300. *(In comparison, the flu vaccine costs about \$25.)*

To make matters worse, many private insurance companies and Medicare will not cover the vaccine.

Are you shocked?

Confused? Outraged?

Get busy! Go to:

- change.org,
- ipetitions.com or
- thepetitionsite.com

Petition the drug company, Medicare, or even private insurance companies to get this vaccine to the people who need it!



STRANGE BUT TRUE!

ARE COWS THE REAL HEROES?

In 1796, a physician named Edward Jenner noticed that cows may hold the cure for the smallpox epidemic.

Smallpox was killing *millions* of people worldwide. Cowpox was a less serious disease related to smallpox that milkmaids often caught through exposure to infected cows.

Jenner noticed that milkmaids who had contracted cowpox were later immune to smallpox.

So, Jenner took some infected cowpox matter and exposed a healthy boy through a cut in his arm. The boy caught and recovered from cowpox. Then Jenner exposed him to smallpox and the boy remained healthy. This was the world's first vaccine!

The cows were honored when the term "vaccine" was coined—"vacca" is Latin for cow.

FOCUS ON PNEUMOCOCCAL VACCINE

What does this vaccine protect against?

The Pneumococcal (pronounced noo-mo-cock-el) vaccine, also referred to as PPSV prevents against diseases caused by a bacteria known as the *Streptococcus pneumoniae* bacteria.

This dangerous bacteria can lead to serious infections of the lungs (pneumonia), blood (bacteremia) and covering of the brain (meningitis).

How is it spread?

Pneumococcal diseases are spread by droplets from the nose or mouth of an infected person. Coughing and sneezing are the most common ways it is spread. People who live in close contact with others, like in nursing homes, are at much greater risk of coming in contact with the bacteria.

What are the symptoms?

The symptoms of pneumococcal disease depend on where the bacteria invade, and may include:

- **Symptoms of pneumonia:** Sudden onset of fever, chills, shortness of breath or rapid breathing, chest pain that is worsened by breathing deeply and a productive cough.
- **Symptoms of meningitis:** Stiff neck, fever, confusion and photophobia (sensitivity to light).
- **Symptoms of bloodstream infection:** Similar to some of the symptoms of pneumonia and meningitis—along with joint pain, fever and chills.

Why do seniors need this vaccine?

Pneumococcal diseases are responsible for the highest rates of death among the elderly clients who have other chronic illnesses such as lung, heart, and kidney disease, diabetes and alcoholism, or are living in special environments such as long-term care facilities.

How is it given?

The vaccine is recommended as a one time injection for everyone over the age of 65. However, a second dose may be needed if the first dose was given *before* the age of 65 or longer than 5 years ago.

Are there any side effects?

About half of people who get the PPSV have mild side effects (such as redness or pain) where the shot is given. Less than 1% develop a fever, muscle aches, or more severe local reactions.

TIME FOR TETANUS, DIPHTHERIA & PERTUSSIS (TDaP) VACCINE!

What does this vaccine protect against?

TDaP protects against three dangerous diseases known as tetanus (lockjaw), diphtheria, and pertussis (whooping cough).

How are these diseases spread?

- The bacteria that causes tetanus is usually found in the soil and in the intestines and feces of many household and farm animals and humans. Tetanus usually enters the body through a wound, such as stepping on a dirty object, or through the bite of an infected animal.
- Diphtheria bacteria live in the mouth, throat, and nose of an infected person and can be passed to others by coughing or sneezing.
- Pertussis is spread through the air by infectious droplets and is highly contagious.

What are the symptoms?

- **Symptoms of tetanus include:** Spasm of the jaw muscles followed by stiffness of the neck, and difficulty swallowing. Other signs include fever, sweating, elevated blood pressure and rapid heart rate.
- **Symptoms of diphtheria may include:** A mild cold with a sore throat, fever and chills that progresses to the formation of a thick coating at the back of the throat, making it difficult to breathe or swallow.
- **The symptoms of pertussis (whooping cough) include:** A runny nose, sneezing and low-grade fever that progresses to a cough that comes in bursts characterized by a high-pitched whoop.

Why do seniors need this vaccine?

Recently, the FDA approved this vaccine for all adults over the age of 65. In the past, TDaP was recommended only as a *childhood* vaccine. However, recent clusters of pertussis outbreaks are popping up as a result of more children being unvaccinated and a decreasing immunity among older adults. Worldwide, there are 30-50 million cases of pertussis and about 300,000 deaths per year.

How is it given?

TDaP is recommended as a booster injection every 10 years. In addition, it should be given to prevent tetanus after any serious injury or burn.

Are there any side effects?

Side effects from this vaccine tend to be mild, if any. Like all vaccines, there may be pain, redness or itching at the injection site. A headache and mild fever are also possible.



THINK ABOUT IT!

Do you live in a state or city experiencing a pertussis outbreak?

In 2010, California declared a whooping cough epidemic and several states, including Michigan and Ohio reported steep increases in cases of pertussis in 2010 compared to previous years.

Visit the CDC's website at: www.cdc.gov/pertussis to find out how close you are to a pertussis outbreak.

While it's important to know your clients' vaccination status and encourage them to get these important vaccines, ***it's equally important to know your own vaccination status.***

Have you been vaccinated for pertussis? You may have been vaccinated as a child, but immunity to pertussis wears off over time. Consider getting a booster shot yourself!



GET OUT!

THINK OUTSIDE OF THE BOX!

Working with clients in the home often requires coming up with creative solutions to uncommon problems.

- **THE PROBLEM:** You are caring for Mr. H, a 76 year old man who suffers from diabetes, heart disease and receives hemodialysis.
- After reading this inservice, you decide to talk to him about getting vaccinated. He tells you vaccines are for kids and he doesn't think he needs them.
- **WHAT YOU KNOW:** You know that Mr. H is at increased risk of catching things like the flu, pneumococcal diseases and hepatitis A. And, you know his health is poor and he could suffer serious complications if infected.
- **GET CREATIVE:** What will you do? Think of three creative solutions to this problem.
- **TALK ABOUT IT:** Share your ideas with your co-workers and supervisor and find out how they would solve this problem.

WHAT ABOUT HEPATITIS VACCINES?

What do these vaccines protect against?

There are two hepatitis vaccines, Hepatitis A and Hepatitis B.

- Hepatitis A is a contagious liver infection caused by the Hepatitis A Virus. Most people who get it recover completely, but an estimated 100 people die from the infection every year in the United States.
- Hepatitis B is a highly contagious liver infection caused by the Hepatitis B Virus. About 100,000 Americans will become infected each year and 5,000 will die from hepatitis B and its complications.

How are these viruses spread?

- Hepatitis A is spread by the fecal-oral route. This means the virus is shed in the stool of the infected person and ends up in the mouth of the next person. It's most commonly spread by infected food service workers who handle food without washing their hands after using the bathroom.
- Hepatitis B is spread by coming in contact with infected blood, saliva, urine, and other body fluids. It's most commonly spread by using contaminated needles and having unprotected sex. But, it can also be spread by using the personal items of an infected person, such as, razors, toothbrushes, scissors, or nail clippers—since little specks of blood could get on these types of items.

What are the symptoms?

Both Hepatitis A and Hepatitis B are known as “silent” diseases. People can live with these diseases for years and not know they are infected. Some of the symptoms that may be present include:

- Mild, flu-like symptoms.
- Nausea and vomiting.
- Weakness and fatigue.
- Abdominal pain (around the liver).
- Jaundice (yellowing of skin and eyes).
- Joint and muscle ache and pain.
- Itching.

Why do seniors need these vaccines?

Older adults with diabetes, chronic liver disease, bleeding disorders, those who receive hemodialysis and people who live in community living situations (like long term care facilities) should receive these vaccines for protection.

How are they given?

- Hepatitis A vaccine is a series of 2 injections, given 18 months apart.
- Hepatitis B vaccine is a series of 3 injections, usually given over 4 months.

Are there any side effects?

A headache and/or a mild fever are possible, along with mild redness or soreness at the injection site.

FOCUS ON MENINGOCOCCAL VACCINE

What does this vaccine protect against?

The Meningococcal vaccine protects against Meningococcal disease, the leading cause of bacterial meningitis. Meningitis is an infection of the covering of the brain and the spinal cord.

How is it spread?

The Meningococcal germ is spread by direct close contact with nose or throat droplets of an infected person.

What are the symptoms?

Symptoms of bacterial meningitis include: high fever, headache, vomiting, stiff neck and a rash.

Why do seniors need this vaccine?

Older adults who have a damaged spleen, people whose spleen has been removed, people with an immune system disorders and people who live in community living situations (like long term care facilities) should receive this vaccine for protection.

How is it given?

The meningococcal vaccine is given to older adults who need it as a single, (one time) injection.

Are there any side effects?

The CDC reports that as many as *half* the people who get meningococcal vaccines have mild side effects, such as redness or pain where the shot was given. Some people may develop a mild fever.



FEAR OF NEEDLES?

IT'S A COMMON PHOBIA...

If you know someone who avoids vaccinations because of a fear of needles, pass along these tips:

- Take some deep breaths and focus on relaxing. If you tense your muscles, it's harder for the needle to slide in...and the injection might hurt more.
- Don't watch the nurse prepare the syringe. And, look away from the injection site as the shot is being given.
- Distract yourself by having a conversation with someone or by listening to music or fiddling with your phone.
- If fear upsets your stomach, don't eat right before having the shot.
- Think about how the vaccination is going to keep you healthy—and maybe even prolong your life!

THE FACTS ABOUT THIS FAIRLY NEW DISEASE

- The first known outbreak of meningitis occurred in 1805 in Geneva, Switzerland, but doctors could not isolate and identify the germ responsible.
- Neisseria meningitides, the bacteria that causes meningococcal meningitis, was not identified until 1887. There are now 12 sub-types of this bacterium that have been identified.
- The first vaccine to prevent meningitis was introduced in 1978.



FIVE KEY POINTS!

REVIEW WHAT YOU LEARNED!

1. Vaccines work by creating antibodies against a weakened form of a disease.
2. When antibodies are stored for later use, the person is said to be "immune" to that disease.
3. Nearly half of all older adults report that they have not received vaccinations for flu, pneumonia, meningitis, or shingles.
4. Herd Immunity happens when a high enough percentage of a community is vaccinated against (or immune to) a disease, then even the few who are not vaccinated will be protected.
5. Changes that take place in the immune system as people age make getting vaccinated against diseases like the flu and pneumonia for older adults more important than ever.

A WORD ABOUT THE HERD!

The vaccine program has been successful at eliminating many diseases. Smallpox, polio and measles are practically unknown today because most people have immunity through vaccines. Vaccines protect everyone through a concept called "herd immunity."

Herd immunity is based on the concept of "safety in numbers." It means that when a high enough percentage of a community is vaccinated against (or immune to) a disease, then even the few who are not vaccinated will be protected. Here's an example:

- Paul gets the flu. He feels really terrible, so he goes to the grocery store to get some medicine. While waiting in line to make his purchase, he coughs and spreads the germ to Mary.
- If Mary is not vaccinated, she will get the flu and spread it to the next person in line. If that person is not vaccinated, the germ will continue to move down the line.
- However, if Mary is vaccinated, Paul can cough on her, but she will not get sick. The disease stops with her. So, even if the next person in line is not vaccinated, he or she is protected by *Mary's* immunity.

Unfortunately, worldwide attention on false claims that vaccines cause autism or other illnesses has led many parents to decline participation in the vaccine program.

When large clusters of children in an area are unvaccinated, outbreaks of vaccine preventable diseases occur. And sadly, the people that would have been protected by herd immunity (specifically, infants and the elderly) are paying the price. **Here's how it happens:**

John's parents decided to refuse vaccinations. For a while, everything seems fine. John is a healthy 7 year old. Then, one beautiful fall weekend the family goes to the State Fair. At the fair, John comes in contact with a ride operator who has pertussis (whooping cough). The man doesn't even know he has it. In adults, it just feels like a really bad cold.

John gets sick. After a rough night of coughing, John's mom takes him to the family doctor. While sitting in the waiting room, John passes the pertussis to Anna, a 3 day old infant (who is too young to be vaccinated) and Rose, a 78 year old woman who is not immune.

John recovers easily, but Anna and Rose are both hospitalized. Anna dies a few days later. Rose spends 3 months in the hospital, then dies.

BY REFUSING TO VACCINATE THEIR SON, JOHN'S PARENTS CREATED A BREAK IN HERD IMMUNITY.

FINAL THOUGHTS ABOUT VACCINES FOR OLDER ADULTS

- Many changes take place in the immune system as people age. This increases the risk of getting vaccine preventable diseases and can lead to more severe symptoms and complications once infected.
- Death due to vaccine preventable diseases, in particular influenza and pneumonia, remains the fifth leading cause of death among older adults.
- It's important to discuss vaccines with your older adult clients. Ask them if they have been vaccinated for the flu and pneumonia. If not, recommend they speak to their doctor at the next visit.
- Reassure clients that vaccines are safe. They are made from weakened (killed or inactive) forms of the germ. So, they will not "catch" the disease by getting the shot.
- If your workplace keeps a record of clients' vaccine status, be sure to check if your client is up-to-date. If your workplace does not keep records of vaccination for older clients, talk to your supervisor about the importance of creating a system to gather this information.
- If you notice your client is not vaccinated against diseases like the flu or pneumonia, do what you can to protect him or her from those diseases. For example, if your client is not vaccinated for the flu, try to keep him or her away from crowded places and unvaccinated children.
- After a client receives a vaccination, pain relievers such as Tylenol or Motrin (if the client is allowed) can help decrease any pain or swelling at the injection site.
- Report right away if you notice the injection site becomes swollen, red, hard, warm to the touch, or if there is any streaking (red lines) moving away from the site.
- Report right away if your client develops a fever, rash or has trouble breathing. These reactions are rare, but remain a possibility.
- Be sure to thank your clients for deciding to get vaccinated. When they make the choice to protect themselves, they are also protecting the rest of the community!



WHAT I KNOW NOW!

Now that you've read this inservice on vaccines, jot down a couple of things you learned that you didn't know before.





Developing Top-Notch CNAs, One Inservice at a Time

EMPLOYEE NAME
(Please print):

DATE: _____

- ***I understand the information presented in this inservice.***
- ***I have completed this inservice and answered at least eight of the test questions correctly.***

EMPLOYEE SIGNATURE: _____

SUPERVISOR SIGNATURE: _____

Inservice Credit:

<input type="checkbox"/> Self Study	1 hour
<input type="checkbox"/> Group Study	1 hour

File completed test in employee's personnel file.

A Client Care Module:
Important Vaccines for Older Adults

Are you "In the Know" about vaccines for older adults? Circle the best choice or fill in your answer. Then check your answers with your supervisor!

- Older adults should get a flu shot:**
 - A. Once a year.
 - B. Twice a year.
 - C. Every five years.
 - D. Never.
- The shingles vaccine is recommended for older adults who:**
 - A. Currently have chickenpox.
 - B. Had chickenpox in the past.
 - C. Never had chickenpox.
 - D. None of the above.
- Your client tells you she does not want the flu shot because she is afraid it will give her the flu. You should:**
 - A. Agree. You don't want her to get sick.
 - B. Put her on isolation precautions to protect her from others.
 - C. Explain that it is made from inactive germs and cannot "give" her the flu.
 - D. Tell her it's much safer to get immunity by actually getting sick from the flu.
- Pneumococcal diseases are spread by:**
 - A. Contact with infected blood.
 - B. Touching an infected sore
 - C. Eating contaminated food.
 - D. Droplets from sneezing or coughing.
- True or False**
One disease the Tdap vaccine protects against is pertussis.
- True or False**
Hepatitis B is most commonly spread when infected food handlers fail to wash their hands after using the bathroom.
- True or False**
All vaccines have the potential to cause redness and soreness at the injection site.
- True or False**
Herd immunity helps protect people who cannot be vaccinated (like infants and frail elderly).
- True or False**
Both Hepatitis A & B are known as "silent" diseases.
- True or False**
Older people have weaker immune systems and can get sicker, have more complications or even die from vaccine preventable diseases.