Influenza causes much stress and worry for assisted living facilities. Are there enough flu vaccines available for residents and staff? Have staff and residents received their vaccinations? How about family members and other visitors? Are they prepared to handle an outbreak? What about the so-called “bird flu” and other issues? How true are the rumors about a possible pandemic?

There are many questions, but there also are answers. This article, the second in a two-part series on colds and flu in assisted living, will discuss influenza prevention and management in assisted living.

Dissecting Influenza
Influenza is an acute, febrile, respiratory infection. Common symptoms include sudden onset of fever, myalgia, headache, cough, rhinitis, and sore throat. However, elderly individuals don’t always present with typical signs or symptoms (such as fever and coughs), and this can complicate influenza diagnoses in this population. Typically, resolution of the illness occurs after several days, but cough and malaise can persist for two weeks or longer.

Among elderly individuals who have other medical problems, influenza can cause severe illness and lead to complications such as pneumonia. Influenza complications in ALF residents can necessitate hospitalization and even result in death. Up to 25% of residents with influenza may be hospitalized during flu season or an outbreak, and one-third

(continued on page 14)
Managing Influenza in the ALF
(continued from page 12)

of those hospitalized may die. In fact, about 90% of influenza-related deaths are among people age 65 and older.

Outbreaks of influenza occur most frequently from early fall through late spring. However, they may begin during or extend into the summer season. Influenza outbreaks in long term care facilities can spread quickly and cause illness in up to 60% of residents, particularly if the situation is not recognized and addressed promptly.

Two types of influenza viruses are responsible for this illness: influenza A and influenza B. Influenza A viruses are classified into subtypes on the basis of two surface antigens—hemagglutinin (H) and neuraminidase (N). Three subtypes of the former—H1, H2, and H3—and two subtypes of the latter—N1 and N2—are recognized among influenza A viruses. Immunity to these antigens reduce the susceptibility to infection and lessens the disease’s severity when it does occur. Influenza B viruses are more antigenetically stable than influenza A viruses.

Influenza is primarily transmitted from person to person through large virus-laden droplets expelled when a person coughs or sneezes. Transmission also may take place through direct contact or indirect contact with respiratory secretion (such as touching contaminated surfaces). Vaccination of residents and staff can help prevent outbreaks. However, vaccination does not necessarily prevent infection in this population, and infection can lead to outbreaks. However, vaccinations can help reduce serious complications from influenza.

Vaccinations

Each year, the influenza vaccines contain three virus strains—two type A and one type B. These represent the most common viruses to which people likely will be exposed in the upcoming influenza season. Vaccines are made from highly purified, egg-grown viruses that are non-infectious, ie, people will not get the flu from the vaccination. In fact, influenza vaccines seldom cause systemic or febrile reactions.

While influenza vaccinations don't always prevent elderly individuals from getting the flu, studies have shown that vaccines prevent severe illness, secondary complica-

Facts about Avian Flu

There has been much talk, concern, and even some panic relating to Avian influenza—or “Bird Flu.” While cases of the disease in humans have been identified, there is general agreement that the illness does not present a serious threat. Nonetheless, it behooves health care professionals and others serving ALF residents to know the basics about Avian flu. The following facts are from the CDC:

- Avian influenza is an infection caused by avian (bird) influenza (flu) viruses. These influenza viruses occur naturally among birds. Wild birds worldwide carry the viruses but usually do not get sick from them. However, the illness is very contagious among birds and can make some domesticated birds, including chickens, ducks, and turkeys, very sick and kill them.

- During an outbreak of avian influenza among poultry, there is a possible risk to people who have contact with infected birds or surfaces contaminated with secretions or excretions from these birds.

- Symptoms of avian influenza in humans have ranged from typical human influenza-like symptoms (eg, fever, cough, sore throat, and muscle aches) to eye infections, pneumonia, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications. The symptoms of avian influenza may depend on which virus caused the infection.

- Studies done in laboratories suggest that some of the prescription medicines approved in the United States for human influenza viruses should work in treating avian influenza infection in humans.

- Of the few avian influenza viruses that have infected humans, a virus called H5N1 has caused the largest number of detected cases of severe disease and death in humans.

- The person-to-person spread of H5N1 virus has been limited and has not continued beyond one person. However, because all influenza viruses have the ability to change, scientists are concerned that H5N1 virus eventually could infect humans and spread easily from one person to another.

- The H5N1 virus that has caused human illness and death in Asia is resistant to amantadine and rimantadine. However, oseltamivir and zanamavir probably would work to treat influenza caused by H5N1 virus, although more studies are necessary to demonstrate their effectiveness.

- There currently is no commercially available vaccine to protect humans against H5N1 virus that is being seen in Asia and Europe. However, vaccine development efforts are ongoing.
Influenza complications in ALF residents can necessitate hospitalization in up to 25% of those infected and even result in death.
**Pandemic: Preparation and Prevention**

A pandemic is a global disease outbreak which occurs when a new influenza virus emerges for which there is little immunity and for which there is no known vaccine. During a pandemic, the disease spreads easily from person to person, causes serious illness, and can spread around the world in a very short time.

The last pandemic occurred in 1968-1969 and resulted in 700,000 deaths worldwide. It is difficult to predict when the next influenza pandemic will occur or how serious it will be. Whenever a pandemic occurs, people worldwide are at risk, and closing borders or similar measures will not stop it.

In many ways, prevention efforts relating to pandemics are not unlike those for seasonal flu. These include vaccination, early detection and treatment with antiviral medications, and the use of infection control procedures to prevent transmission in the facility. But at the beginning of a pandemic, an appropriate vaccine may not be available, and drug supplies may be limited. Therefore, an emphasis should be placed on measures to limit transmission. This can be challenging in assisted living facilities, where residents are free to move about the facility and social activities are a regular part of daily life. The key is to educate residents and family members about what procedures will be necessary during a pandemic. These should include:

- Limiting contact between infected and non-infected people (residents, staff, and visitors alike)
- Confinement of infected individuals
- Closing or spatial separation of common areas such as dining halls and recreation rooms
- Wearing of masks and/or gloves for contact with infected individuals
- Handwashing procedures
- Hygiene activities to limit spread of infectious respiratory secretions

In addition to medications, ALFs can employ comfort measures to help ease residents’ suffering and discomfort while they are recovering from influenza. When possible, they should be individualized to each resident; and they may include special foods (eg, soups, pudding, or ice cream), favorite music, the companionship of animals (eg, dogs, cats, or fish), or a new and interesting book or magazine.

**Impact of Influenza on ALF Staff**

While residents logically are the focus of most flu prevention and treatment efforts in ALFs, it is important to remember that influenza has a tremendous impact on staff as well. Facilities should have policies in place regarding staff and influenza. They also should ensure that staff understands what is expected of everyone in terms of protecting residents and preventing outbreaks.

Increased vaccination rates among staff is an important step to protecting employees and residents alike. Strategies to increase vaccination rates among staff include:

- Select a facility leader who is respected by staff to administer a vaccination program
- Gain support and buy-in from the administrator and other leaders
- Create a policy statement outlining the facility’s commitment to and goals regarding staff immunization
- Deliver the message in a variety of ways (eg, staff newsletter, posters on bulletin boards, notes in paycheck envelopes)
- Provide extensive education about the benefits of vaccines, the danger of influenza for residents, and the myths and facts regarding vaccination and influenza
- Make vaccinations easily accessible and remove cost barriers
- Monitor program and announce progress regarding goals on a regular basis
- Make the vaccination program an annual project
- Make the program fun—offer prizes, contests, parties, and other events to reward staff for their participation.

One of the main concerns in ALFs and other long term care facilities is that they often operate on a shoestring staff. As a result, these individuals may go to work when they are infected with the virus but don’t feel ill enough to stay home. Facilities must have strict policies regarding illness and absenteeism. Staff should be encouraged to stay home when they have influenza and not return until they are fully recovered.

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