
Keeping Colds and the Flu from Sidelineing Residents and Staff: Part 1

Joanne Kaldy

An assisted living facility could easily prevent colds and flus from spreading simply by isolating residents in their rooms or apartments and having staff wear gowns, masks, and gloves throughout the winter and spring. Of course, such precautions are unrealistic, but there is much that facilities can do to prevent and effectively treat these illnesses.

This primer on colds and flus offers a look at the standards for prevention and treatments, alternative therapies, and innovative drugs. It also will examine some of the common myths and facts about colds and flus that staff, residents, visitors, and others need to understand to control these illnesses and prevent outbreaks, hospitalizations, and even deaths.

This is a two-part series. The first article will focus on colds. Flus will be addressed in the March/April issue of *Assisted Living Consult*.

The Common Cold: The Basics

According to the American Lung Association, colds are minor infections of the nose and throat caused by several different viruses. The common cold is medically known as infectious nasopharyngitis, and it



is the most prevalent upper respiratory tract infection.

A cold generally lasts for about a week; but some can last longer, particularly in vulnerable populations such as the elderly, young children, and individuals in poor health.

Over 200 different viruses can cause the common cold. These include:

- Rhinovirus
- Corona virus
- Adenovirus
- Coxsackie virus
- Paramyxovirus
- Parainfluenza virus
- Respiratory syncytial virus

The rhinovirus is the most common and causes about one-half of all colds.

Risk factors for colds include:

- Exposure to infected individuals
- Touching one's nose, mouth, or eyes with contaminated fingers
- Personal history of allergies
- Cigarette smoking or frequent exposure to cigarette smoke
- Stress
- Female sex

Colds cause varying degrees of discomfort in patients. Signs and symptoms include:

- Runny nose
- Congestion
- Sneezing
- Weakened senses of taste and smell
- Scratchy throat
- Cough

Colds accompanied by a fever also may cause chills or body aches. At the same time, a cold virus also opens the door to other viruses—such as sinus infections, which can result in other, more serious signs and symptoms. These include:

- Unusually severe cold symptoms
- High fever
- Ear pain
- Sinus type headache

- Cough that worsens while other cold symptoms improve
- Flare-up of any chronic lung problem, such as asthma

A cold usually starts rapidly with throat irritation and nasal stuffiness. Within hours, full-blown cold symptoms usually develop. Fever, when present, is low grade and generally goes down after a few days. Nasal discharge usually is clear and runny the first one to three days. After that, it thickens and becomes yellowish to greenish. A runny nose lasts two to seven days, although coughing and nasal discharge can

There is no cure for the common cold. However, various treatments can help relieve symptoms and enable residents to be more comfortable, sleep better, and keep up their appetites.

persist for two weeks or more. The sore throat usually is mild and lasts only about a day.

As the average adult in the U.S. gets two to four colds per year and these illnesses account for more visits to the physician than any other condition, colds can place a financial burden on the health care system and pocketbooks of consumers.

Treatment Targets Comfort, Not Cure

Despite the claims by a number of products and people, there is no cure for the common cold. However, various treatments can help relieve symptoms and enable resi-

dents to be more comfortable, sleep better, and keep up their appetites while they recover from a cold.

Most physicians discourage the use of all-in-one cold formulas that address all symptoms at once. The side effects of these products—such as drowsiness—can be dangerous for ALF residents and put them at risk for falls, increased confusion, or other problems. Of course, all residents should be strongly cautioned to consult their physician or pharmacist before taking any over-the-counter medication, vitamin, or herbal/alternative product.

The following are some of the most common and widely accepted treatments used to address various symptoms related to colds:

- *Pain relievers.* Acetaminophen, aspirin, and/or ibuprofen can be used to treat aches and pains. Ibuprofen may be the best choice for a headache, and at least one study has suggested that aspirin and acetaminophen actually can increase nasal blockage. Of course, the choice of any medication should be coordinated with the resident's physician or pharmacist and consider any comorbid illnesses the individual has—such as GERD or stomach ulcers—that may prohibit the use of certain pain killers.
- *Decongestants.* Decongestant pills, capsules, or nasal sprays can shrink the nasal passages and decrease mucus production, thus relieving a stuffy and/or runny nose. Nasal sprays should only be used for 2-3 days. Using them longer actually can increase congestion.
- *Humidifier.* A cool mist can help keep nasal passages moist and help reduce congestion and nose bleeds. The humidifier needs to be cleaned thoroughly every day to maximize its effectiveness.
- *Saline nose drops.* These may provide relief from congestion.
- *Salt water gargle.* This activity can help relieve a sore throat.
- *Over-the-counter cough drops.*

Using cough drops or throat lozenges as needed every few hours can help relieve sore throat and coughs. However, residents should be cautioned not to use them when lying down and not to fall asleep with a lozenge in their mouth.

Over the years, many new cold treatments have been developed. For example, back in 2002, scientists at the University of Virginia developed a combination drug therapy reported to give a “one-two punch to knock out colds.”¹¹ According to researchers, one part of the treatment eliminated the virus causing the infection, while the second part blocked the body’s response to the infection. One ingredient in the treatment was the antiviral drug interferon, a natural protein of the body that makes cells resistant to cold virus infections for up to 24 hours. The other two ingredients were chlorpheniramine, an antihistamine, and ibuprofen. The new treatment was licensed to Coldcure, Inc., a Richmond-based company.

It’s Just Common Sense

Of course, there are many common-sense recommendations for colds. These include drinking plenty of fluids (such as juices or water). Drinks such as tea and coffee that have diuretic properties should be avoided, as should milk and other dairy products (because they encourage mucus production, which worsens congestion). Residents with colds also should be discouraged from consuming alcoholic beverages, as these are dehydrating and put an extra strain on the liver.

Other common-sense suggestions for cold sufferers include:

- Stay in a stable, moderate temperature. Avoid extreme changes from hot to cold or vice versa.
- Use aromatic chest rubs to increase comfort and reduce congestion.
- Bundle up and keep warm.

- Take a steamy shower to help clear congestion.

While favorite dishes or “comfort foods” may not have any therapeutic benefits, they may make residents feel better and help them eat better so that they don’t lose weight during cold illnesses.

Natural Treatments

In addition to the numerous over-the-counter medications that are sold to treat colds, several natural treatments have been touted as playing a role in preventing or



Common-sense recommendations for colds include drinking plenty of fluids; keeping warm; using aromatic chest rubs; and using steam to help clear congestion.



speeding the resolution of colds. However, it is important to note that there are limited data on these therapies; and much more study is necessary before any of them can be recommended for assisted living residents—or, for that matter, any other individuals.

Nonetheless, clinicians and caregivers serving with AL residents should know about these treatments and what they are purported to do.

Zinc. Zinc is used in the form of nasal sprays or lozenges. One recent study indicated that the use of a zinc nasal spray reduced a cold’s duration by nearly 75%.² This research involved 213 people with a newly developing cold. Participants received one squirt of zinc glu-

conate gel or placebo gel in each nostril every four hours while awake. The results showed that those in the treatment group stayed sick an average of 2.3 days, while those taking placebo were ill for nine days. However, another study involving 183 participants showed no benefit of zinc nasal spray.³ Although this trial used a smaller amount of zinc per spray, the jury remains out on the benefit of this treatment; and more studies are necessary.

There also have been studies regarding to use of zinc lozenges. In one involving 100 people showing early signs of a cold, coughing stopped within 2.2 days in the treated group, versus four days for the placebo group.⁴

There also is a theory that because zinc is often deficient among seniors, zinc supplementation can be useful for older individuals who get ill easily. One study suggested that zinc and selenium taken together in nutritional doses can reduce the number of infections in a nursing facility.^{5,6} Other studies performed in third world countries have indicated that zinc supplements can increase resistance to infections.^{7,8}

Echinacea. Until the 1930s, echinacea was the most commonly used cold and flu remedy in the U.S. When sulfa antibiotics came on the market, echinacea lost its popularity. Echinacea is said to work by temporarily stimulating the immune system. However, there is little evidence that this herbal product strengthens the immune system when taken long term. Nonetheless, several studies have shown that various forms of echinacea can reduce cold symptoms and help resolve colds faster. For example, a double-blind, placebo-controlled trial involving 80 European participants with early cold symptoms were given *E. purpurea* (a species of echinacea) or placebo. Results indicated that the patients who received the treatment recovered three days

Myths and Facts about Colds and the Flu

There are many common misunderstandings about colds and the flu that can cause AL residents and staff to take these illnesses too lightly or to take actions that can result in spreading cold and flu viruses throughout the facility. The American Lung Association has identified several of the most common myths about colds and the flu and the corresponding facts. A few of these are listed here. For others, see the organization's Web site at www.lungusa.org.

MYTH: You can catch the flu or a cold from going outdoors in cold weather.

FACT: The flu and colds are more common in the winter months because that is when the viruses spread across the country. It has nothing to do with being outside in cold weather.

MYTH: Large doses of vitamin C can keep you from catching the flu or a cold, or will quickly cure them.

FACT: These claims have not been proven. Still, it is important to one's overall health to consume the minimum daily requirement of vitamin C.

MYTH: Feed a cold and starve a fever.

FACT: This is definitely not a good idea in either case. You need more fluids than usual when you have a cold or the flu. Drink plenty of water and juice, eat enough food to satisfy your appetite, and drink hot fluids to ease your cough and sore throat.

MYTH: Herbal remedies are an effective treatment for colds.

FACT: Echinacea and other herbs are getting a lot of publicity as cold remedies. Zinc lozenges are also said to cure colds quickly. To date, none of these claims are solidly supported by the scientific literature.

MYTH: Chicken soup and hot toddies are effective treatments for the flu or colds.

FACT: A bowl of chicken soup is a popular home remedy. While hot liquids can soothe a scratchy throat or cough, chicken soup has no special power to cure a cold or flu. As for hot toddies, another folk remedy, any beverage containing alcohol should be avoided when you are sick.

faster than those who took placebo.⁹ Another study suggested that echinacea might be able to abort a cold that is just starting. This research involved 120 people given *E. purpurea* or placebo as soon as they began showing signs of a cold. The results showed that fewer people in the treatment group felt that their initial symptoms actually developed into "real" colds than those in the placebo group (40% versus 60%).¹⁰

While the results of these studies may be promising, there are many limitations of these reports, for

example, outcomes (progress of cold versus resolution of cold) were self reported. Further study is necessary before clinicians can recommend or use this treatment with any certainty.

Andrographis. This is a shrub found throughout India and other Asian countries and is believed to provide many of the same benefits as echinacea. To date, the studies regarding this treatment are limited and unimpressive in terms of their results. For example, one four-day trial of 158 adults with colds found that treatment with andrographis

slightly reduced cold symptoms.¹¹ Another study showed the treatment to reduce symptoms of fever and sore throat to the same degree as acetaminophen, but much higher dosages of andrographis were necessary to achieve this result.¹²

Vitamin C. Many people believe in the value of vitamin C for preventing colds. While even a number of clinicians support the use of vitamin C for this purpose, the limitation with most of the studies is that they involved participants who used vitamin C throughout the cold and flu season.¹³ More studies are needed to address the benefit in people who begin taking the supplement when their cold symptoms start.

Ginseng. There are few studies regarding the use of this herb to treat colds. While some scientists and herbalists believe that ginseng has promise as an immunity strengthener, much more study is necessary in this regard.

Garlic. People have taken garlic in various forms to treat or prevent colds. One recent study suggests that there might be some clinical evidence that garlic can help colds.¹⁴ This 12-week, double-blind, placebo-controlled trial of 146 individuals showed that patients in the treatment group were almost two-thirds less likely to catch cold than those taking placebo. However, there is no evidence to date that taking garlic once a cold develops will have any benefit.

Preventing Colds

Contrary to popular belief, colds are not spread by touching inanimate objects such as shopping carts and toilet seats. Nonetheless, washing hands frequently and using antibacterial hand soaps are advised. This is especially important for staff members and caregivers who work with many residents in the course of a day. It also is important for residents, staff, and visitors to avoid touching their nose or eyes, as this may transmit respiratory secretions picked up from surfaces

or the air by vulnerable tissues.

There are many lifestyle habits that can help prevent colds. These include a healthy diet with food such as fresh, dark-colored fruits and vegetables that are rich in antioxidants. Scientists also are studying the potential value of foods (eg, yogurt) in preventing respiratory infections such as colds.

Reducing or avoiding stress can help seniors and others avoid colds and other respiratory infections, as individuals experiencing emotional distress or pressure in their lives are more likely to get ill. In one study involving more than 400 people, for example, researchers found that people who reported high levels of psychological stress were twice as likely to develop a cold as those claiming low stress levels.

Other prevention tips include:

- Avoiding excess sugar, alcohol, and chemicals that can weaken the immune system
- Take a basic multivitamin/mineral that is age- and gender-appropriate
- Get adequate sleep, as lack of sleep can weaken the body's immune defenses
- Avoid contact—whenever possible—with others who are ill; or at least avoid sharing towels, silverware, or beverages

Facilities should have a policy in place regarding staff who have colds or the flu. These policies should address necessary vaccinations for employees and when they should stay home from work due to illness. It also is important to educate visitors about the risk of colds and how they can help protect residents and themselves from illness.

In Sickness and in Health

While it is impossible to prevent colds and flus in ALFs completely, it is possible to reduce the spread of these illness and to reduce the suffering of individuals who get ill.

One key to an effective ALF infection control program is to edu-

cate residents, staff, and visitors alike about the hygiene and lifestyle factors that can help prevent colds. It also is essential that residents understand the importance of checking with their physician or pharmacist before they take any over-the-counter medication or attempt to self-treat a cold or other illness. If their physician or pharmacist okays a medication that can increase drowsiness or have other side effects, residents should be encouraged to alert staff so they can get assistance, for example, with ambulating.

One key to an effective ALF infection control program is to educate residents, staff, and visitors alike about the hygiene and lifestyle factors that can help prevent colds.

Finally, special foods, favorite music, or a good book can provide tremendous comfort when a resident has a cold. Clinicians, staff, and visitors alike should not forget the small measures and simple gestures that can provide comfort when someone has a cold. ALC

Joanne Kaldy is Managing Editor of Assisted Living Consult.

References

1. Gwaltney JM, Winther B, Patrie JT, Hendley JO. Combined antiviral antimediator treatment for the common cold. *J Infect Diseases* 2002;186:147-154.
2. Hirt M, Nobel S, Barron E. Zinc nasal gel for the treatment of common cold symp-

toms: a double-blind placebo-controlled trial. *Ear Nose Throat J* 2000;79:778-781.

3. Belongia EA, Berg R, Liu K. A randomized trial of zinc nasal spray for the treatment of upper respiratory illness in adults. *Am J Med* 2001;111:103-108.
4. Mossad SB, Macknin ML, Medendorp SV et al. Zinc gluconate lozenges for treating the common cold: a randomized, double-blind, placebo-controlled study. *Ann Intern Med* 1996;125:81-88.
5. Fraker PJ, Gershwin ME, Good RA et al. Interrelationships between zinc and immune function. *Fed Proc* 1986;45:1474-1479.
6. Girodon F, Lombard M, Galan P et al. Effects of micronutrient supplementation on infection in institutionalized elderly subjects: a controlled trial. *Ann Nutr Metab* 1997;41:98-107.
7. Bhutta ZA, Black RE, Brown KH et al. Prevention of diarrhea and pneumonia by zinc supplementation in children in developing countries: pooled analysis of randomized controlled trials. *Pediatrics* 1998;102:1-5.
8. Sazawal S, Black RE, Jalla S et al. Zinc supplementation reduces the incidence of acute lower respiratory infections in infants and preschool children: a double-blind, controlled trial. *Pediatrics* 1998;102:1-5.
9. Schulten B, Bulitta M, Ballering-Bruhl B et al. Efficacy of Echinacea purpurea in patients with a common cold. A placebo-controlled, randomized, double-blind clinical trial. *Arzneimittelforschung* 2001;51:563-568.
10. Hoheisel O, Sandberg M, Bertram S et al. Echinagard treatment shortens the course of the common cold: a double-blind, placebo-controlled clinical trial. *Eur J Clin Res* 1997;9:261-268.
11. Melchior J, Spasov AA, Ostrovskij OV et al. Double-blind, placebo-controlled pilot and phase III study of activity of standardized *Andrographis paniculata* Herba Nees extract fixed combination (Kan jang) in the treatment of uncomplicated upper-respiratory tract infection. *Phytomedicine* 2000;7:341-350.
12. Thamlikitkul V, Dechatiwongse T, Theerapong S et al. Efficacy of *Andrographis paniculata* Nees for pharyngotonsillitis in adults. *J Med Assoc Thai* 1991;74:437-442.
13. Matthys H, de Mey C, Carls C et al. Efficacy and tolerability of Myrtol standardized in acute bronchitis. A multi-centre, randomized, double-blind, placebo-controlled parallel group clinical trial vs. cefuroxime and ambroxol. *Arzneimittelforschung* 2000;50:700-711.
14. Josling P. Preventing the common cold with a garlic supplement: a double-blind, placebo-controlled survey. *Adv Ther* 2001;18:189-193.