TDCJ Risk Management's

Training Circular

Volume 7 Issue 11 Risk Management Issues November 2007

"THE COLD WAR"

This war has nothing to do with the world politics nor nuclear weapons. It's over something that's arguably more important — your health!

Most neighborhood health organizations have already held their "vaccination days." Hopefully, you have taken advantage of these, if able. Cold and flu season is upon us. We anticipate it annually (*notice that I didn't say that we look forward to it!).* It's like paying taxes. We know it's coming every year but the best we can hope for is that it isn't as bad as the previous year!

The good thing about colds and flu is that they are preventable. They are very much alike, therefore, what goes for one goes for the other, in most cases. But how do you know which one is which?

Identify the Enemy

Flu is like the cold in many ways--most basically, they're both respiratory infections caused by viruses. If a cold is misdiagnosed as flu, there's no problem. At worst, a cold can occasionally lead to secondary bacterial infections of the middle ear or sinuses, which can be treated with antibiotics. But if the flu is misdiagnosed as a bad cold, potentially life-threatening flu complications like pneumonia may be overlooked.

Some of the symptoms of a cold and flu are similar, but the two diseases can usually be distinguished. (See accompanying chart.)

Typically, colds begin slowly, two to three days after infection with the virus. The first symptoms are usually a scratchy, sore throat, followed by sneezing and a runny nose. Temperature is usually normal or only slightly elevated. A mild cough can develop several days later.

Symptoms tend to be worse in infants and young children, who sometimes run temperatures of up to 102 degrees Fahrenheit (39 degrees Celsius). Cold symptoms usually last from two days to a week.

Signs of the flu include sudden onset with a headache, dry cough, and chills. The symptoms quickly become more severe than those of a cold. The flu sufferer often experiences a "knocked-off-your-feet" feeling, with muscle aches in the back and legs. Fever of up to 104 degrees Fahrenheit (40 degrees Celsius) is common. The fever typically begins to subside on the second or third day, and then respiratory symptoms like nasal congestion and sore throat appear. Fatigue and weakness may continue for days or even

weeks.
"The lethargy, achiness and fever are side effects of the body doing its job of trying to fight off the infection," according to Dominick Iacuzio, Ph. D., influenza program officer with the National Institutes of Health (NIH).
Influenza rarely causes stomach upset. What is popularly called "stomach flu"--with symptoms like nausea, diarrhea and vomiting--is technically another malady: gastroenteritis.
Cold and flu-like symptoms can sometimes mimic more serious illnesses like strep throat, measles, and chickenpox. Allergies, too, can resemble colds with their runny noses, sneezing, and general miserable feeling.
If symptoms persist, become severe or localized in the throat, stomach or lungs, or if other symptoms such as vomiting and behavioral changes occur, consult your physician.
"With the typical symptoms, it's not necessary to contact your physician immediately," Iacuzio says.

The Treatment Arsenal
There is no proven cure for colds or flu but time. However, over-the-counter medications are available to relieve the symptoms.
"OTC cough-cold products can make you more comfortable while you suffer," says Debbie Lumpkins, a scientist with the Food and Drug Administration's division of over-the-counter drug products. "They are intended to treat the symptoms of minor conditions, not to treat the underlying illness."
Don't bother taking antibiotics to treat your flu or cold; antibiotics do not kill viruses, and they should be used only for bacterial complications such as sinus or ear infections. Children and teenagers with symptoms of flu or chickenpox should not take aspirin or products containing aspirin or other salicylates. Use of these products in young flu and chickenpox sufferers has been associated with Reye syndrome, a rare condition that can be fatal. Because cold symptoms can be similar to those of the flu, it's best not to give aspirin to people under 20 with these types of symptoms.
The active ingredients FDA considers safe and effective for relieving certain symptoms of colds or flu fall into the following categories:

- **Nasal decongestant-s**open up the nasal passages. They can be applied topically, in the form of sprays or drops, or taken orally. But using sprays or drops longer than three days may cause nasal congestion to worsen.
- **Antitussives,** also known as cough suppressants, can quiet coughs due to minor throat irritations. They include drugs taken orally, as well as topical medications like throat lozenges and ointments to be rubbed on the chest or used in a vaporizer.
- **Expectorants,** taken orally, help loosen mucus and make coughs more productive.

Most nonprescription cough-cold remedies contain a combination of ingredients to attack multiple symptoms. These combination products often contain antipyretics to reduce fever and analgesics to relieve minor aches, pains and headaches.
Users of OTC medicines should carefully follow the labeling instructions and warnings. Under a new FDA rule, all OTC products will soon have labels with a standardized format and simplified language to help consumers understand the information.

The Cold War
OTC cough and cold medication sales totaled 3.2 billion dollars in 1995, according to a national industry survey.
That's no surprise, considering Americans endure about 1 billion colds each year.

Most colds strike Americans in the fall and winter. Contrary to what many people believe, the increased rate of colds during this time is actually not due to the cold weather. So why do more people feel "under the weather" during the winter months? Probably, say researchers at NIH's National Institute of Allergy and Infectious Diseases, because of the greater time spent indoors in cold weather, increasing the

opportunity for viruses to spread among people. Also, the lower humidity during the colder months helps cold-causing viruses to thrive and may dry the lining of the nasal passages, making them more susceptible to infection. To minimize the spread of colds, people should try to keep their defenses up and their exposure down.

First Line of Defense

Cold viruses can be transmitted in one of two ways: by touching respiratory secretions on a person's skin (when shaking hands, for example) or on environmental surfaces (like doorknobs or handrails) and then touching the eyes, nose or mouth, or by inhaling infectious particles in the air (like respiratory secretions from a cough or sneeze).

The best way to break the chain of infection? Hand washing is the key, according to Iacuzio, along with not touching the nose, eyes or mouth.

"Your mucus membranes are your first line of defense against infection," according to Iacuzio. "Interference with the constant passage of mucus raises the chances for entry of the virus." That's why drinking liquids and maintaining a humid environment with a vaporizer may lower susceptibility. To minimize the spread, other helpful measures include avoiding close, prolonged exposure to people with colds, and always sneezing or coughing into a facial tissue and immediately throwing it away. Cleaning environmental surfaces with a virus-killing disinfectant is also recommended.

The Flu Fighters

Flu typically affects 20 to 50 percent of the U.S. population each winter. It's a highly contagious disease, spreading mostly by direct person-to-person contact. "With the flu, coughing--even more than sneezing--is the most effective method of transmission," Iacuzio says.

The flu virus can linger in the air for as long as three hours. In close quarters, conditions are ripe for the spread of the virus. That explains why the highest incidence of the flu is in 5- to 14-year-olds, who spend much of their time in school, in close contact with their classmates. The most serious complications occur in older adults, however.

Vaccine a Powerful Weapon

The most important tool for fighting the everchanging flu virus is immunization by a killed virus vaccine licensed by FDA. The vaccine is made from highly purified, egg-grown viruses that have been made noninfectious.

Vaccination is available to anyone who wants to reduce their chances of getting the flu. Studies have shown the vaccine's effectiveness rate to be 70 to 90 percent in healthy young adults. In the elderly and in people with certain chronic illnesses, the vaccine sometimes doesn't prevent illness altogether, but it does reduce its severity and the risk of complications.

The government's Advisory Committee on Immunization Practices strongly recommends vaccination for the following high-risk groups:

- people aged 65 or older
- residents of nursing homes and other facilities that provide care for chronically ill persons
- people over the age of 6 months, including pregnant women, who have certain underlying medical conditions that required hospitalization or regular doctors' visits during the preceding year. These conditions include:
    - asthma, anemia, metabolic disease such as diabetes, or heart, lung or kidney disease
    - impaired immune system due to HIV infection, treatment with drugs such as long-term steroids, or cancer treatment with radiation or chemotherapy
- children and teenagers (6 months to 18 years) who

must take aspirin regularly and therefore may be at risk of developing Reye syndrome if they get the flu.

To reduce the risk of transmitting flu to high-risk persons--and to protect themselves from infection--the advisory committee recommends flu shots for people with regular close contact with high-risk groups. Such people include health-care workers, nursing home personnel, and home-care providers. Because it takes the immune system about six to eight weeks to respond to vaccination, the best time to get the flu vaccine is mid-October to mid-November, before the December-to-March U.S. flu season hits.

The vaccine's most common side effect is soreness at the vaccination site for up to two days. Some people may experience post-shot fever, malaise, sore muscles, and other symptoms resembling the flu that can last for one to two days. Actually, the flu vaccine can't cause flu because it contains only inactivated viruses. The vaccine should be repeated annually, since the immunity is believed to last only about a year, and because the vaccine's composition changes each year based on the flu strains scientists expect to be most common.

"In the not-too-distant future," says Iacuzio, "consumers may have alternatives to the flu shot, including different delivery methods like nasal drops or a spray." Major pharmaceutical companies, in cooperation with scientists representing NIH, FDA's Center for Biologics Evaluation and Research, and academia, are making significant strides, also, toward an even more protective vaccine. Some people--but not many--should avoid the flu shot. People allergic to eggs and people with certain other allergies and medical problems like bronchitis or pneumonia should consult a doctor before getting a flu shot. And those with a high fever should not receive the vaccine until they feel better. Pregnant women who have a high-risk condition should be immunized regardless of the stage of pregnancy; healthy pregnant women may also want to consult their health-care providers about being vaccinated. (*Note* portions of this circular were excerpted from Food and Drug Administration FDA articles.*)

Still, the best for of protection is prevention. Since we work with a large population in a relatively enclosed area, cleanliness is essential. Get into the practice of washing your hands frequently. Avoid close contact with others. And by all means, be considerate of those around you. If you don't feel well or have a cough, do your coworker a favor and steer clear of them until you're feeling better. Remember, the more people who are off work sick means more work for those who are there!

Training Circular
TDCJ Risk Management Department
Volume 07 Number 11
November 2007

Director, Administrative Review and Risk Management
Debra Liles

Program Administrator
Risk Management
Chris Carter

Audit & Inspection Manager
Risk Management
Doug Odom

Operations Manager
Risk Management
David Scholwinski

The *Training Circular*, a publication of the Texas Department of Criminal Justice Risk Management Department, is published monthly in effort to promote and enhance risk management awareness on issues relating to TDCJ employees. Design and layout of the Training Circular is performed by David Scholwinski, Operations Manager, Risk Management. Comments, suggestions and safety related items are welcome. Send suggestions to:

David Scholwinski
Risk Management Department
1060 hwy 190 east
Huntsville, Texas 77340
or,
david.scholwinski@tdcj.state.tx.us