This issue of the Healthy Camels Newsletter, written by Dr. Erich Cain, a Campbell University Community Pharmacy Resident at Kerr Drug in Sanford, North Carolina, is intended to give you an overview of antibiotic resistance and the importance of avoiding antibiotic therapy in situations in which it is not warranted.

Flu season is now upon us, and while everyone should get a flu shot as soon as possible, it is also important to discuss and understand a major concern associated with treating the flu and other illnesses that you may encounter. Along with the flu, folks may become sick with other common ailments during the colder months, such as a cold, cough, runny nose, sore throat, sinus infection, and other respiratory (lung) conditions like bronchitis (“chest cold”). These illnesses come with a range of bothersome symptoms that often call for relief with medicine. Antibiotics, on the other hand, are sometimes prescribed for these illnesses, even though they are often unnecessary and may actually cause more harm than good when used inappropriately. Taking antibiotics when they are not needed can cause “antibiotic resistance.”

Antibiotic resistance: What is it, and why should I be concerned about it?
Illnesses such as the flu, the common cold, some ear infections, and most coughs & respiratory (lung) infections are caused by viruses. Viruses are different than bacteria, both structurally and regarding the illnesses that they cause. Antibiotics can only treat infections caused by bacteria, not viruses. When you take an antibiotic, the germs in your body that are sensitive to that particular antibiotic will be “killed”, but some other bacteria can change and become resistant to the antibiotic’s effects, allowing them to cause more harm as they grow and spread. Infections caused by resistant bacteria can then become more difficult, or even impossible, to treat. Some people may think that their bodies are becoming resistant to the antibiotic, when in actuality it is the bacteria becoming resistant to the antibiotic. As more people misuse antibiotics, antibiotic-resistant bacteria will flourish.

So if I shouldn’t use antibiotics, how can I feel better?
When it comes to treatment and relief of the aggravating symptoms that accompany these sicknesses, there are essentially two ways to go about managing the symptoms: “non-pharmacologic” (i.e. without using medications) and “pharmacologic” (i.e. using medications).

“Non-pharmacologic” treatment for children and adults: There are some key points to remember about how to feel better when you become ill. It is very important to get lots of rest and plenty of sleep when you are sick. Staying hydrated is extremely important, so be sure to drink lots of fluids. Warm compresses are commonly used to treat pain due to ear pains/aches and sinus pressure and/or pain. To help relieve a cough or nasal congestion (“stuffy nose”), humidifiers or vaporizers are very useful and are easy-to-use. Humidifiers and vaporizers can also help relieve a sore throat, as will chewing on ice chips.
“Pharmacologic” treatment for adults: 4

There are many over-the-counter (OTC) products that can be used to relieve your symptoms. Common pain relievers include acetaminophen (the ingredient in Tylenol®, ibuprofen (Advil®, Motrin®), and naproxen (Aleve®). These pain-relieving medications can also be used to treat a fever. Saline nasal sprays and decongestants can be used to relieve nasal symptoms, such as congestion or stuffy nose. Antihistamines may also be used to dry up a runny nose and sinus drainage, but should be used with caution due to possible drowsiness.

While these are some of the more commonly-used medicines that are readily available in pharmacies, they may not be appropriate or safe for you to use if you have certain health problems. Be sure to talk with your pharmacist or doctor before starting any new medication.

“Pharmacologic” treatment for children: 4

First and foremost, you should always consult the directions on the container or packaging of OTC products, because many products should not be used for children of certain ages.

Ibuprofen and acetaminophen are often used to relieve pain for a child. Acetaminophen can be used for children of all ages; ibuprofen can be used in children at least 6 months old. Children, under the age of 18, should NOT use aspirin, due to a rare but dangerous risk for liver or brain damage in children. Saline drops can be used to relieve nasal congestion (“stuffy nose”). Many cough and cold products are not recommended for children younger than 4 years old. For older children, ask your family pediatrician or pharmacist to recommend a cough or cold product. Many of these products are dosed according to the child’s age and weight, and require specific dosing that can be determined by your doctor or pharmacist. Also, these products often contain several different ingredients that treat different symptoms and may not be safe for your child.

How to prevent antibiotic resistance 1,3

While it is important to know what can be done to treat symptoms and feel better when you are sick, it is also very important to understand steps you can take to prevent antibiotic-resistant infections and reduce one’s risk of becoming infected with drug-resistant bacteria.

• Don’t take antibiotics for viral illnesses.
• Don’t insist or demand that your doctor prescribe an antibiotic for you if he/she says that you don’t have a bacterial infection. For example, remember that most respiratory (lung) infections are caused by viruses, and antibiotics would be useless in this case. Don’t expect to get a prescription for an antibiotic for these types of illnesses and infections that are not caused by bacteria.
• Be sure to take antibiotics exactly as prescribed – complete the treatment and do NOT skip doses, and do NOT stop taking it early because you are feeling better. Bacteria may still be present, and stopping the antibiotic early allows remaining bacteria to survive and cause another infection.
• Don’t save antibiotics for another time that you or somebody else gets sick. Anything leftover (for example, liquid antibiotics for a child) should be discarded after the treatment course is finished.
• Don’t take antibiotics that are not prescribed for you, because the antibiotic may not kill the bugs that are making you sick, allowing the bugs to continue growing.
• WASH YOUR HANDS!!! This is especially important now as we enter flu season. Regular soap is okay to use; soap with antibacterial ingredients are not proven to be more effective than soap products without antibacterial ingredients.

References:
