

# House Calls

## Antibiotics Use & Mis-Use

By Rikki Schuster

“Take all of your medicine until it is completely gone.” Do you ever wonder why your health care provider and pharmacist keep telling you this? So many people have the mindset that once they feel better, they can stop taking their prescribed antibiotic...WRONG!

This is one of the most common reasons why people get back-to-back illnesses. They take a few days of their ten-day antibiotic, once they feel better they stop taking them, then suddenly a week later they become more ill than they were with the original sickness.

Or, since the child doesn't like the taste of the prescribed antibiotic, or is just uncooperative with taking the medicine, the parent 'skips' a few doses, and is wondering why Johnny is experiencing another ear infection 10 days after the first one. This practice is common, costly, causes more suffering than necessary, and can be completely avoided.

Here is the concept: antibiotics are prescribed for certain bacterial illnesses for a specific amount of time determined by previous studies and experience. For example, if your health care provider decides you need a 10-day course of amoxicillin for your ear infection, it takes the whole ten days to kill all of the bacteria that are causing that particular infection.

You may start feeling better by day 4 or 5, but that is because the majority of the bacteria are killed at that time, however it is usually only the weakest and most vulnerable bacteria that are actually killed. The stronger bacteria continue to live and grow and become even stronger. Often times, they even become resistant to the antibiotic

you didn't finish correctly, and within about a week to ten days later, those strong bacteria cause an even more serious infection. Then you end up having to take a stronger antibiotic.

If you personally take antibiotics inappropriately, the resistant bacteria that you create are a threat not only to you, but also your family and community. With frequent antibiotic use, resistant organisms persist and become widely established over time. These resistant organisms can cause new and hard to treat infections, even in people who haven't abused antibiotics.

You should never take antibiotics without a prescription. I cringe every time a patient tells me they took their mom's left over penicillin for their cough! Or even more popular is the person who didn't finish their antibiotic I prescribed them last year, decided on their own to start taking it again for this illness and can't understand why they aren't feeling better yet.

The problem with this practice is the antibiotic might not be necessary in treating the new illness, or it may not be the right dose, or it may not contain the active ingredient to fight the bacteria in your system. All of these can contribute to stronger strains of resistant bacteria.

Another problem causing antibiotic resistance is the patient's expectation of receiving an antibiotic every time they are sick. Not all illnesses are treated with antibiotics. Some of the most common illnesses in the fall and winter are colds and influenza. These are viruses, and are not cured with antibiotics. Unfortunately some health care providers feel pressured by their patients to prescribe antibiotics.

According to one study at the Mayo Clinic, it is estimated that in the United States health care

providers write 50 million antibiotic prescriptions for viral illnesses. Granted, it is often times quite difficult to determine whether the patient is experiencing a bacterial illness versus a viral illness, but the study indicated that many of these prescriptions were written due to pressure from the patient.

Keep an open mind when you discuss antibiotic therapy with your provider, try to take their advice, and don't assume that because you have a cough, you need to be taking antibiotics.

Your responsibility in using antibiotics extends far beyond your reach. Responsible antibiotic use protects not only you, but your family, neighbors, and community.

Now if we can just find a cure for the common cold!

*Rikki Schuster, PA-C, is a certified physician assistant and has been practicing medicine for 10 years. She is currently available to see children and adult patients through Medical House Calls; a medical practice that understands 'your time is valuable, we'll come to you'. Call 252-475-2007 for details and appointments.*