

Antibiotics

By now, we all know the world has a problem with bacteria that are resistant to all known forms of antibiotics. There are, in my opinion, two main causes for this problem. One is the overuse of these medications by health care professionals. The second, and I think larger problem, is the widespread use of antibiotics in raising animals. The simple answer is to stop inappropriate use by health care professions and to ban the use with livestock. As usual, this will solve some problems and create others.

Changing public attitudes about the problem has helped reduce industrial use. Recently some of the major players in the fast food industry have refused to buy animals that have been medicated. Specifically, they decided to stop purchasing chickens that had been raised with the use of antibiotics. The reason they cited was consumer demand. In general, I think this is a healthy trend. But we also must remember that the world population is growing rapidly, and we will need to find methods to produce safe, untainted food for millions more each year. Therefore, in the short term, selected use of antibiotics may be needed.

As for our profession, I am worried that resistant strains of bacteria are being produced and that we may not be able to continue developing new antibiotics faster than the bacteria can mutate. I certainly support an appropriate reduction in the use of these medications for our patients. So what is an appropriate reduction?

Unfortunately, there are current legal issues that argue not for decreased use, but indeed for increased use of antibiotics in dentistry. For example, if you perform a routine procedure without prescribing antibiotics and your patient gets an infection, you can be held legally responsible. I am personally aware of recent instances where dentists have lost lawsuits because they did not give antibiotics to patients for procedures that they consid-

ered routine, such as closed subgingival scaling and root planing or free gingival grafts. In both cases, the legal system decided that, even though it was not generally indicated to give antibiotics for these specific patients and procedures, the dentists were still responsible for the infection. In neither case was improper sterilization or lack of attention to performing the procedures in a clean environment cited as a reason for negligence.

So should we defensively prescribe even when we know the patient and procedure do not warrant antibiotics, thus possibly producing more resistant stains, or not prescribe and risk a lawsuit?

I think that there is a reasonable middle ground. If one has a patient who has a higher than normal risk for developing infections, prescribing antibiotics even for some nonsurgical procedures can certainly be warranted. This group could include patients with diabetes, certain heart murmurs, and specific prostheses at greater risk, such as surgically implanted heart valves. This group should, in my opinion, include most patients having dental surgical procedures to help control plaque and speed healing.

It is hoped that pharmaceutical companies will continue to develop new and improved medications to deal with the problems of infection in general and in dentistry specifically, and that ultimately pharmacogenetics will allow specific targeting of cells by medications that do not lead to resistant strains. In the meantime, hopefully by addressing the situation, health professionals and the food industry will reduce the short-term problem.



Thomas G. Wilson, DDS
Editor-in-Chief