

Preserving Antibiotics for the Treatment of Human Disease

For over fifty years, antibiotics have enabled us to treat bacterial infections, helping to save innumerable lives. Today we are in danger of losing our ability to treat these infections as bacteria become more and more resistant to antibiotics. Antibiotic overuse can cause bacterial gene mutations that allow bacteria to develop defense mechanisms against antibiotics. Bacteria can pass these resistance genes not only to their own offspring, but also to completely unrelated types of bacteria. Taken together with bacteria's ability to reproduce rapidly, this means that resistant genes can be widely distributed in relatively short order. Some bacteria end up resistant to multiple types of antibiotics and are sometimes referred to as "super bugs."

On a pound for pound basis, the biggest overuse of antibiotics is found on the farm, where antibiotics are routinely fed to healthy poultry and livestock to promote slightly faster growth and to compensate for stressful conditions. This non-therapeutic use of antibiotics is estimated to represent the use of two thirds of the antibiotics produced in the United States. About half of these drugs are identical or closely related to drugs used in human medicine.

Food service operators should use this important information to impact purchasing practices, and work with food producers, manufacturers, distributors and other business partners to show that the food service industry will stand together to stop this practice. By taking antibiotics out of animal feed, the effectiveness of antibiotics to cure human disease can be prolonged. (To be noted is the important fact that some poultry growers have announced that they have voluntarily begun taking steps to reduce use of medically important antibiotics.)

Legislation that would withdraw FDA approvals for non-therapeutic agricultural users of eight specified antibiotics or classes of antibiotics has been introduced in both the United States Senate and in the US House of Representatives. The covered antibiotics would be: penicillins, tetracyclines,

macrolides (including but not limited to erythromycin and tylosin), lincomycin, bacitracin, virginamycin, aminoglycosides, and sulfonamides. All are used in human medicine and, according to the bill's sponsors, are so closely related to human use drugs that they trigger cross-resistance.

The bill's sponsors, and nearly 150 consumer, medical and other organizations supporting the legislation agree that "Mounting scientific evidence shows that the routine feeding of antibiotics to healthy farm animals (which occurs without a prescription) promotes development of antibiotic-resistant bacteria that can be transferred to people, making it harder to treat certain infections in humans. This 'non-therapeutic' use of antibiotics is estimated to constitute a majority of antibiotics used in the United States each year. In addition, some therapeutic uses of antibiotics in agricultural animals, also demonstrably contribute to antibiotic resistance affecting human health."

By specifically targeting the non-therapeutic use of antibiotics, the legislation allows for sick animals to receive treatment. It also leaves farmers with many options including other non-therapeutic antibiotics that are not used in human medicine, as well as improved animal husbandry practices such as those utilized in Europe (where most non-therapeutic antibiotics have been banned) and on some U.S. farms.

We should spread the word to our Senators and Congressional Representatives to support: S.2508 and H.R. 3804, "The Preservation of Antibiotics for Human Treatment Act of 2002" and take a stand to include the food service industry with organizations such as The World Health Organization, The American Medical Association, Environmental Defense, and The Union of Concerned Scientists to help preserve antibiotics to fight human disease.

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