

Veterinary Prescriptions Preserve The Future

*The Changing Regulations of Veterinary Antibiotics and Why They
Are Essential to the Future of Human and Animal Medicine*

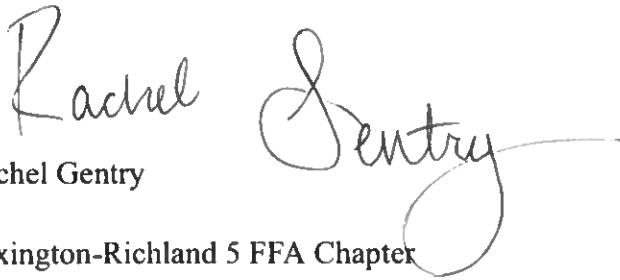
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I certify that all materials presented here are of my creation and that any work adopted from other sources is duly cited and referenced as such.

A handwritten signature in cursive script that reads "Rachel Gentry". The signature is written in dark ink and is positioned above the printed name and affiliation.

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2,216. That is the number of stores Tractor Supply Company operates across 49 states (Tractor Supply Co., 2024). That is also the number of stores, in addition to the thousands of co-ops and other feed supply stores that serve our nation's livestock producers and pet owners, that saw significant policy changes come into effect on June 11, 2023. It was on this date that the United States Food and Drug Administration (FDA) implemented its Guidance for Industry #263, a policy that restricted the ability of these retail stores to sell over-the-counter antibiotic medications to consumers. For decades, animal owners across the country have had unlimited access to antibiotics and other antimicrobials. When in need of these medications, animal owners could simply walk into their local Tractor Supply or other farm store and purchase a variety of antibiotics to fit their needs. This system allowed livestock producers and other consumers to address the medicinal needs of their animals as they saw fit, and made health management an easy, day-to-day task. While this arrangement sounds beneficial for both animals and their caretakers, research into the effects of unsupervised and injudicious use of antibiotics has raised much concern for antimicrobial resistance and its implications for both animal and human health worldwide (Stuttgen, 2022). In response, health organizations around the world, including the U.S. FDA, have developed and implemented stricter regulations on these medications over the past 10 years (Nebraska Farm Bureau, 2023). Yet, despite previous work surrounding this issue, the seemingly abrupt change in the availability of antibiotic medications still caused much discord and distress among livestock producers and pet owners (Vandegrift, 2023). As a result, there is still a need for additional advocacy, outreach, and education surrounding the overarching benefits of these regulations to the future of human and animal health.

Dr. Bill Flynn, DVM, the deputy director for the Center of Veterinary Medicine (CVM) at the U.S. FDA, explained in an interview with the Nebraska Farm Bureau that the FDA's policy

was a part of the FDA's 5-year plan to improve the supervision and regulation of antimicrobial medications (Nebraska Farm Bureau, 2023). These guidelines specify the affected medications and dictate to pharmaceutical companies that they are to market and label these medications as prescriptions. The driving force behind these regulatory changes is that CVM researchers now recognize that antimicrobial residues can persist in the products of animals treated with these antibiotics, which can prompt the development of antibiotic-resistant bacteria (Stuttgen, 2022). This means that not only are our animals at risk for developing antibiotic resistance but so are the consumers of animal products. These risks are only exacerbated when antimicrobial medications are unregulated and available over-the-counter, as there is more potential for animals to be over- or under-dosed, and for there to be indiscriminate use of these medications (The Livestock Project, 2023). It is important in both veterinary and human medicine to protect the integrity and efficacy of our antibiotics. One of the greatest steps to slowing antibiotic resistance is to support the veterinary stewardship and regulation of these medications. To do this, FDA's Guidance for Industry #263 has made these once easy-to-access, over-the-counter medications, now available by veterinary prescription only. While this policy change had been in motion for several years, many consumers were upset when products were ultimately removed from stores (Vandegrift, 2023). Their access to antimicrobial medications is now a more complicated and, sometimes, more expensive and time-consuming process (Vandegrift, 2023). Furthermore, there is a national shortage of livestock veterinarians. In fact, the USDA reported over 500 counties across the nation in which there are either too few or no veterinarians to service their rural communities (Neuman, 2022). With less than 3% of veterinary school graduates intending to treat livestock animals, there is no immediate solution to these shortages (Neuman, 2022). As a result, access to a veterinary pharmacy can be hours away (Avant, 2023). In addition, consumers are now also faced with the possibility of more expenses to obtain these

medications, including consultation costs, prescription fees, and delivery fees. Overall, the FDA's restriction of antibiotic medications has been a largely debated topic and a difficult transition for livestock producers, pet owners, and animal supply retailers across the country.

Despite these challenges, this change was necessary to help protect the future effectiveness of veterinary and human medications. If antimicrobial resistance persists, medicines will become ineffective and make the task of disease treatment, control, and prevention an almost impossible task (Centers for Disease Control and Prevention, 2022). Requiring antibiotic prescriptions encourages animal owners to work more closely with veterinarians and, when consulting a veterinarian, clients can be prescribed the appropriate antibiotic at the correct dosage for specific conditions they are treating, which allows more judicious use of these medications. To receive more timely prescriptions, this system also encourages livestock owners to maintain a Veterinary-Client-Patient-Relationship (VCPR). A VCPR requires regularly conducted examinations from a veterinarian but allows a veterinarian to prescribe medications without necessarily having to conduct a full exam because of their relationship and previous knowledge about the client and patient (Wagoner, 2022). More established VCPRs in the livestock industry enable herd health to be monitored more closely, making improvements not only in animal health and welfare but also for livestock producers and consumers. Increased antibiotic regulation has also encouraged livestock owners to prioritize animal health through improved animal husbandry and herd management practices, which has reduced the dependence of many production systems on these medications (The Livestock Project, 2023).

When the FDA implemented policy changes in consumer access to veterinary antibiotics, many farmers, ranchers, and animal owners were in an uproar. The debate over the importance of this change to the future of medicine and the challenges it has forced upon animal owners is one that continues today. Yet, continued advocacy for these policies by the U.S. FDA and other

government agencies around the world is generating positive systematic changes in animal production systems. State extension agencies and Farm Bureau organizations are helping to bridge the gap between policymakers and animal producers through their outreach efforts. Agritourism, agriculture education, and youth programs, such as 4-H and FFA, are helping to educate consumers and animal owners about animal health and its impact on human health. Through these advocacy, outreach, and education efforts, it is quite clear that requiring veterinary oversight in the use of antibiotics ensures proper administration of these medications, improves animal health and welfare, and helps to reduce antimicrobial resistance in both humans and animals, which will help maintain the integrity and effectiveness of human and veterinary medicine for decades to come.

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