



EXPLORING THE PROMISING NICHE OF VETERINARY PHARMACY: OPPORTUNITIES AND CHALLENGES



10.56238/edimpecto2025.007-001

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ABSTRACT

The pharmacist professional has multiple roles in the healthcare sector, which extend far beyond the dispensing of medicines. We aim to highlight the importance of pharmacists in the veterinary area in this text. Its attributions cover a wide range of activities essential to the sector. One of the primary functions of the veterinary pharmacist is to work in the pharmaceutical industry, engaging in the development, production, and quality control of medicines, cosmetics, and specialized animal feeds. The pharmacist in his pharmacological follow-up is necessary in pharmacies of any nature, including veterinary pharmacy. In the veterinary area, thanks to Resolution No. 572/13, working in the production of pharmacological follow-up, causing a reduction in the risks of poisoning. The present work was based on an exploratory/bibliographic literature research, which aims to discuss and describe in a narrative way the performance of the pharmacist in veterinary pharmacy in a contextual and scientific way. By analyzing its various activities and recognizing the importance of this specialized niche, we can aspire to a future in which animals receive the best possible pharmaceutical care, contributing to the improvement of the quality of life of all species and harmony among living beings on our planet.

Keywords: Veterinary Pharmacy. Pharmacist. Resolution No. 572/13. Pharmaceutical Education.

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INTRODUCTION

The pharmacist plays a vital role in the veterinary field, contributing to the health and well-being of animals. The attributions cover a wide range of activities essential to the sector. One of the main functions of the veterinary pharmacist is to work in the pharmaceutical industry, engaging in the development, production, and quality control of medicines, cosmetics, and specific animal feeds. They work as a team with veterinarians and scientists to ensure the effectiveness and safety of these products. Another responsibility is the handling and dispensing of veterinary medicines, including allopathic, homeopathic, nutraceutical, and herbal formulations. The pharmacist is essential to ensure the correct dosage and compliance with prescriptions, in addition to offering guidance to tutors on the proper use of medications. (Gama, Thalita Albuquerque; Pinto, 2024).

The veterinary pharmacist can work in veterinary hospital pharmacies, providing support in drug therapy and preparation of personalized medications for specific treatments of each animal patient. Another important assignment is the work in the distributors of veterinary products and medicines, ensuring the safe and regulated distribution of these products to veterinary clinics and hospitals. The referred article analyzes the field of veterinary pharmacy in its most diverse activities, in which the pharmacist professional is of paramount importance. And he refers to the veterinary area as a promising niche. (Leal; De Araújo; Lordello. 2025).

In addition, the veterinary pharmacist may be involved in the manipulation of oncological drugs for animal use, providing adequate and safe treatments for animals with cancer, in some specific circumstances, the pharmacist may perform tests in clinical analyses for the veterinary area, under the responsibility of the veterinarian, contributing to obtaining accurate diagnoses. The pharmacist plays an integral role in the veterinary field, ensuring the quality, safety, and efficacy of medicines and products used in animal health care, contributing to the well-being and quality of life of pets and those used in agricultural activities. (Nisar et al., 2025).

METHOD

The present work was based on an exploratory/bibliographic research of literature, which aims to discuss and describe a given subject in a narrative way, in a contextual and scientific way. In analyzing the field of veterinary pharmacy in its most diverse activities, the pharmacist professional is of paramount importance. And he refers to the veterinary area as a promising niche. Bibliographic exploratory research is a fundamental approach in academic research. It consists of the extensive analysis of various bibliographic sources,



such as books, articles, theses, and scientific journals, in order to broadly understand a specific topic. By exploring and gathering information from different perspectives, the researcher gains a bird's-eye view of the subject, identifying trends, currents of thought, and gaps in knowledge. This methodology is essential to outline the scope of future studies, as well as to support more in-depth research and the formulation of hypotheses. "Bibliographic exploratory research is the crucial starting point for the development of solid and grounded knowledge" Gil, 2002).

RESULTS AND DISCUSSIONS

The veterinary area had a significant transformation, thanks to Resolution No. 572/13, which regulated the attributions of the pharmaceutical professional in this sector. This resolution was an important milestone, as it allowed the pharmacist to act in a more specific and comprehensive way in the care of animal health. With Resolution No. 572/13, the veterinary pharmacist began to play a fundamental role in the pharmaceutical industry focused on animals. Its performance in the production, quality control, and development of medicines, food, and cosmetics for pets and production animals has become a key piece in ensuring the safety and efficacy of these products. According to Coimbra (2019):

In this area, the pharmacist is responsible in the veterinary environment for manufacturing and/or dispensing veterinary medicines, as well as providing pharmaceutical assistance, correctly indicating the dosage of each prescription; it can also analyze the entire manufacturing process; participate in research; It is also present in the inspection of the final product.

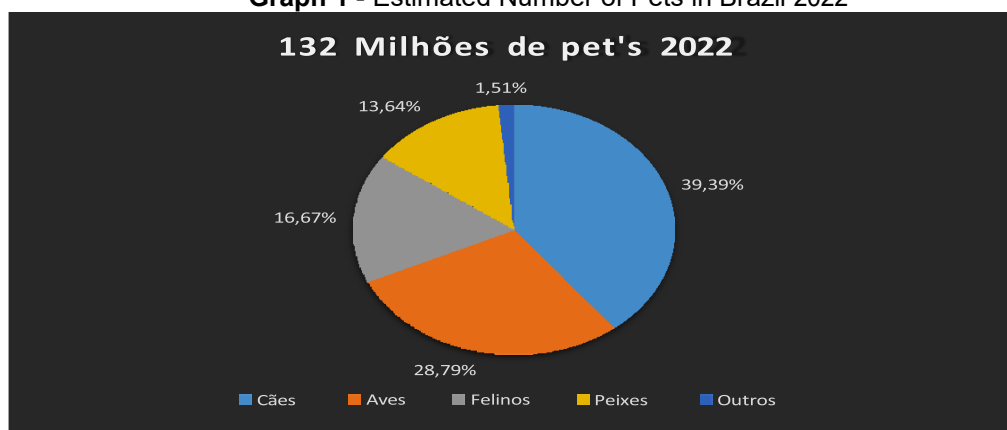
The authorization for the veterinary pharmacist to handle and dispense veterinary medicines, whether allopathic, homeopathic, nutraceutical, or herbal medicines. He valued the hard work of the pharmacist in bringing a greater diversity of treatments, enabling more personalized and effective solutions for animal patients. In addition, Resolution 572/13 recognized the role of the veterinary pharmacist in animal-specific hospital pharmacies. Their participation in drug therapy and in the preparation of customized medications provided a more qualified and individualized care to animal patients and in the guidance for their caregivers, increasing the efficiency of treatment. (From Neighborhoods *et al.*, 2021).

Brazil is home to 132 million pets, highlighting the relevance of the veterinary pharmaceutical industry. Taking care of the health and well-being of these pets is fundamental to the industry. The veterinary pharmacy plays a crucial role in providing essential medicines, vaccines, and treatments to maintain the health of pets, ensuring their well-being and promoting a healthier relationship between humans and animals.



In recent years, the pet population in Brazil has grown significantly, making the country one of the largest pet markets in the world. This increase reflects changes in the population's lifestyle, including the humanization of pets and the recognition of their role in family life. Given this scenario, the veterinary pharmacy emerges as an essential sector to ensure the well-being and health of animals. The veterinary pharmacy is responsible for providing medicines, supplements, vaccines, and other essential products for the treatment and prevention of diseases in small and large animals. In addition, many of these pharmacies offer medication manipulation, allowing for customized formulations that meet the specific needs of each pet. This service is especially important for animals with difficulties in ingesting conventional tablets or that need different dosages. (BRAZILIAN ASSOCIATION OF THE PET PRODUCTS INDUSTRY, 2023).

Graph 1 - Estimated Number of Pets in Brazil 2022



Source: Instituto pet Brasil. Available at: <https://institutopetbrasil.com/imprensa/censo-pet-1393-million-pets-in-brazil/>

Another important aspect was the work of the veterinary pharmacist in the distribution of veterinary products and medicines. Its performance ensured that these products were distributed safely and by regulatory standards, contributing to a more structured and responsible animal health system. In short, Resolution No. 572/13 is a watershed for the veterinary area. With the advent of this important resolution that recognized the importance of the veterinary pharmacist, making him a fundamental piece in the promotion of the health and well-being of animals, the magistral pharmacy continues its excellence in pharmaceutical solutions. According to OLIVEIRA, ANDERSON, 2010:

It is essential that the magistral pharmacist knows the essence of his professional activity and must guide his work in the search for personalized pharmacotechnical solutions to pharmacotherapeutic problems.

Veterinary pharmacy presents a vast field of opportunities for professionals interested in animal health. In addition to the commercialization of medicines and specific



products for pets, the area expands to research and development of innovative therapies. With the increasing care of pets and the growing concern for their well-being, new specializations such as nutrition, herbal medicine, and veterinary acupuncture have emerged. This diversity of services allows professionals to work as a team with veterinarians, promoting health and better care for animals, creating a rewarding and promising career. With this significant number, veterinarians have been developing new technologies and increasingly improving the care of pets, recently there has been the regulation of telemedicine, a right and a huge responsibility for veterinary clinics and pharmacists in the production of this medicine, artificial intelligence is being inserted in several sectors in our contemporaneity and the veterinary segment is no exception.

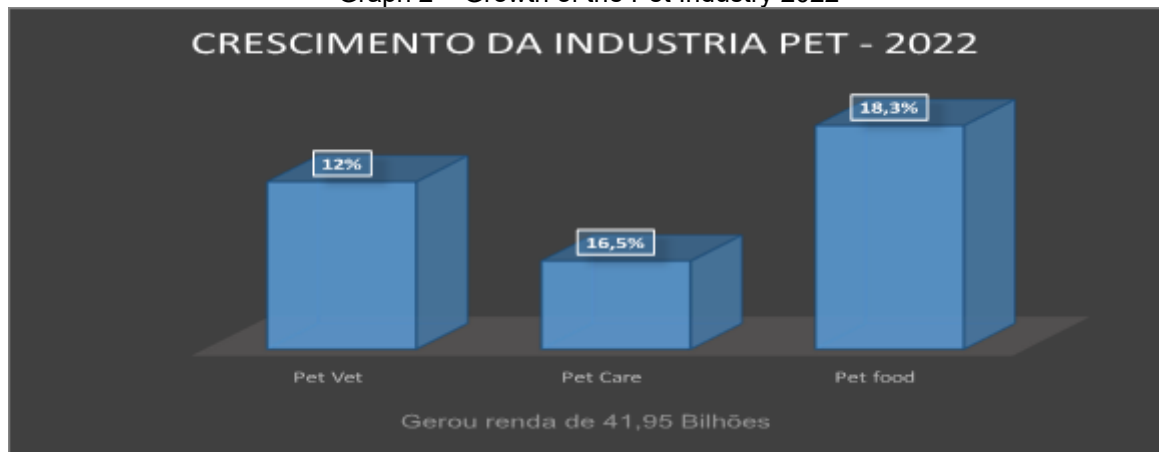
AI has relevance in helping the diagnosis by crossing information, containing a vast database, and thus identifying patterns between symptoms, making the diagnosis process more agile, accurate, and efficient. Another impactful differential in veterinary technology is 3D printing, Microchipping, and veterinary software. According to the simple vet team in the article "Artificial intelligence in veterinary medicine":

In the future, this Artificial Intelligence in veterinary medicine will be able to interpret medical diagnoses and issue reports in real time, complementing the knowledge of veterinarians and pharmacists and saving valuable time. AI may be able to quickly and accurately identify abnormal patterns in complete blood counts (CBC). This improves the characterization of blood cells.

The pet industry has experienced remarkable growth in recent years. With the growing awareness of the importance of pets in our lives, the demand for pet-related products and services has increased significantly. From food and accessories to veterinary services and specialty care, companies in the industry have been expanding to meet the needs of pet owners, thereby driving the continued development of this thriving industry. The pet industry is a thriving sector that has moved around 41.95 billion dollars worldwide. (Brazilian Association of the Pet Products Industry, 2025).



Graph 2 – Growth of the Pet Industry 2022



Source: Abinpet. Available at: <http://abinpet.org.br/mercado/>.

This growth is driven by the increase in the number of pets and the change in attitudes of pet owners, who are increasingly willing to invest in quality products and services for their pet companions. The market ranges from food and accessories to animal health and welfare services. This impressive figure reflects the continued growth of people's love and dedication to their pets. Veterinary Pharmacy emerges as a specific and promising niche in the field of animal health, playing a crucial role in promoting the well-being of pets and ensuring the safety and efficacy of veterinary medicines. (Ferreira, 2024).

CONCLUSION

Throughout this article, we have explored the growing importance of this discipline and how it has developed as an ever-evolving area of study and practice. Technological and scientific advances have propelled Veterinary Pharmacy to a higher level, providing professionals in this field with a greater understanding of the specific pharmacological needs of different animal species. This has allowed the development of safer and more efficient drugs, as well as personalized therapeutic strategies to meet the individual demands of animals, considering their physiological and pathological particularities. Moreover, the growing awareness of animal welfare and the emotional bond between owners and their pets has boosted the demand for specialized pharmaceutical care.

The Veterinary Pharmacy embraces the challenge of ensuring the availability of quality and safe medicines, following strict ethical and regulatory standards. Another relevant aspect to be mentioned is the role of Veterinary Pharmacy in public health, especially with regard to the prevention and control of zoonoses, diseases that can be transmitted from animals to humans. In this sense, interdisciplinary collaboration between human and veterinary health professionals becomes essential to address emerging challenges and ensure a comprehensive and effective approach to protecting the health of



both. However, it is essential to highlight that Veterinary Pharmacy still faces significant challenges, such as the continuous need for professional updating, the search for resources and investments in research and development of new drugs for veterinary use, as well as awareness of the importance of responsible and ethical pharmaceutical practice.

In short, Veterinary Pharmacy is a field on the rise, which plays a key role in animal health and welfare. Its promising potential lies in constant innovation, interdisciplinary collaboration, and a commitment to meeting the specific pharmacological needs of animals. By recognizing the importance of this specialized niche, we can aspire to a future in which animals receive the best possible pharmaceutical care, contributing to the improvement of the quality of life of all species and harmony among living beings on our planet.



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