

A reasonable approach to antimicrobials in veterinary practice.

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Introduction

Veterinary medications are utilised for a variety of purposes, including medicinal, preventive, and growth stimulation. The review was undertaken with the goal of determining the appropriate use of antimicrobials in veterinary medicine. Veterinary medications are employed in the cattle industry in both reasonable and irrational ways. Veterinary pharmaceuticals are used rationally when sick animals are given medications that are appropriate for their clinical needs and are given in reasonable amounts that fulfil their own unique criteria, for a sufficient period of time, and at the lowest possible cost. Irrational drug usage, on the other hand, is a problem. Overprescribing, omission, wrong dosage, incorrect duration, drug misuse, and taking too much of a good thing are all symptoms of this condition. Unnecessary risk, excessive or frequent drug usage, and failure to adhere to a drug's withdrawal period [1].

According to the study, veterinary drugs are used irrationally due to a lack of knowledge among healthcare providers, a lack of treatment guidelines, essential drug lists, and national formularies, a lack of diagnostic support services such as laboratory services, self-medication, and buying antibiotics directly from pharmacies, street vendors, or markets, and an insufficient supply of veterinary drugs. Antimicrobial resistance is the present global health issue to animals and humans due to irrational medication use. As a result, veterinary drugs, particularly antimicrobial agents, should be used with caution; improve availability of key essential drugs on stock through good drug supply management to reduce drug misuse and therapeutic failure; and maintain the withdrawal period to protect the public and livestock from drug residual effects and antimicrobial resistance development. Antibiotics are chemical molecules produced naturally by a variety of microorganisms, including bacteria and fungus, which kill or restrict the growth of other microbes. Among Streptomyces, Bacilli, Pencilliums, and Actinomycetes. According to estimates, Antibiotics are produced in large quantities around the world, with roughly 100,000 tons produced annually. Antimicrobial drugs have been widely used for more than 50 years to improve both humans and animal health. The discovery of antibiotics in the 1940s revolutionized the treatment of infectious bacterial disease that killed millions of people and animals during the pre-antibiotic golden age. Many of these drugs are abused by veterinarians as well as the general public [2,3].

The problem is worse in developing countries that have privatized veterinary services. It is undeniable that rational use of antimicrobials plays a vital role in the production of food animals and protecting public health. Antibiotic resistance due to irrational drug use in medical and veterinary practice, food industries, agriculture and in communities is posing a global health problem. Ethiopia has published research on the evaluation of rational use of drugs on human in some parts of our country. There is lack of development of newer and effective antibiotics due to the high cost and emergence of pathogenic resistant bacterial diseases. Irrational drug use can provoke the most serious disturbances, as are mutagenesis, carcinogenesis and teratogenesis. FDA has banned the use of some antimicrobials, as well as some other drugs in feed for animals. The rational use of drugs is a critical component of animal and human treatment that is both safe and successful. It increases the patient's quality of life while also being cost-effective. Aside from that, it reduces unfavourable toxicity and side effects, delays the emergence of drug resistance, reduces drug residue, and maximises the benefits that can be obtained from optimal medication use. However, factors such as a lack of knowledgeable professionals, a lack of medicine information such as clinical treatment guidelines, essential drug lists, and national formularies, a lack of diagnostic support services such as laboratory services, and an insufficient supply of appropriate medicines remain major determinants of irrational drug use. The professional can use a multidisciplinary approach to promoting rational antibiotic usage by providing accurate information about pharmaceuticals and instructions for adverse drug reactions, as well as informing the owner about drug dosing schedules and drug withdrawal periods [4,5].

References

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