PRESERVING ANTIBIOTICS FOR THE FUTURE

Issue

Imagining a world without antibiotics is hard to do. Before antibiotics a trivial injury could lead to serious infections, often uncontrollable. People lived in fear of infectious diseases that could not be treated then. Most of these are now controllable. Thanks to antibiotics in part. The same has been the case for animal health. Like us, our pets are living longer and healthier lives and our livestock is raised a lot more successfully through our ability to control infectious diseases.

Farmers and pet owners do their best to prevent disease occurring in their animals by keeping their animals well fed, physically comfortable, ensuring good husbandry for farm animals and by following careful hygiene practices. Giving all the necessary vaccinations will hold many problems in check but because bacteria and other microbes are found everywhere in the environment it is virtually impossible to prevent animals coming into contact with organisms that can cause disease.

20% of global animal production is lost due to disease. We need new medicines now.

Our contribution

Antibiotics are a vital part of the veterinarian’s toolkit. They are necessary to fight bacterial infections in animals, farming animals and pets alike. From a welfare and an ethical point of view, it is necessary to preserve these antibiotics: inflammatory conditions like Mastitis and lameness are extremely painful for the animal concerned and farmers have a moral duty to avoid suffering.

In addition, about 40% of the global spend on veterinary medicines is for pets. Antibiotics help control a range of common and often painful bacterial conditions in dogs and cats and other domestic pets such as ear, skin, respiratory and bladder infections, some of which can also be dangerous to people if not treated.

In order to ensure their future use the animal health sector across the world firmly advocates the responsible use of antibiotics, as for all veterinary medicines. Effective and targeted use of antibiotics will be an essential part of any strategy to turn back the tide of infectious disease and resistance. Within this larger context, the role of other treatment options such as the use of vaccines in preventing disease is important, as is good biosecurity, appropriate housing, good nutrition, and herd health programmes at the farm-level. All those engaged in animal health have a responsibility to ensure proper use of antibiotics, a commitment to transparency and monitoring of use, and to promote education on what responsible use of antibiotics means, in order to safeguard the health and welfare of animals, and ultimately public health and food safety.

“The discovery and application of antibiotics in medicine only occurred in the last 70 years”
CASE STUDY:
Jorge’s responsible use of antibiotics helps keep his herd healthy

Jorge, a sixteen year old aspiring veterinarian in Mexico, has helped on the family farm for as long as he can remember. The farm, which has been supplying locally sourced, high quality and affordable meat to shops and restaurants in the Mexico City area for generations, is integral to the family’s livelihood. Jorge’s duties range from cleaning and feeding the animals to accompanying his father to cattle markets to buy new calves for the farm. One of his most important responsibilities is to look out for signs of disease. If a contagious bacterial infection was to spread amongst the herd, such as Bovine Respiratory Disease (BRD), this could have serious implications for his family’s business, as well as the butchers and restaurants that rely on the farm for supplies.

Bovine Respiratory Disease (BRD), also known as shipping fever or pneumonia, is an infectious disease that often affects young cattle. Over the years, Jorge has developed a close relationship with the local veterinarian who has taught him how to look out for the initial signs of BRD, which include depression, gaunt appearance, lethargy, laboured or rapid respiration, nasal discharge, dry muzzle, drooping ear, fever and rough hair coat. These signs are usually seen within the first weeks of purchasing an animal, so Jorge checks the pens with new or high-risk cattle on a daily basis.

If any signs do appear, Jorge immediately calls the veterinarian who will make the appropriate diagnosis and prescribe medicines to ensure early treatment for the infected animal and minimise the risk of the disease spreading through the herd. The veterinarian is best qualified to select the most effective and efficient treatment to protect an animal’s health. In the case of BRD, antibiotics are next to vaccination essential for fighting bacterial infections, such as BRD.

The word <antibiotic> comes from the Greek anti meaning ‘against’ and bios meaning ‘life’. Bacteria are tiny living organisms that can sometimes cause illness to humans and animals. Some bacteria are harmful, while others are good for us. Our immune system regularly fights off bad bacteria but sometimes antibiotics are required to help. Antibiotics may also be given to control an imminent disease threat. On farms, especially where calves are purchased from different regions, antibiotics are sometimes administered to high-risk animals in order to minimise the threat of BRD and other bacterial infections spreading in the first place.

It is essential that qualified veterinarians decide if an antibiotic is necessary and if so, what kind and how to administer it. Antibiotics play a hugely important role in maintaining human and animal health worldwide. They must, however, be used responsibly. This means that they are most effective when used as little as possible and as much as necessary, and for the right length of time and in the right way. Additionally this means they are used in conjunction with good animal husbandry, bio-security and herd health management plans on farms, including vaccination programmes.

Antibiotics are an essential part of any veterinarian’s toolkit; they are invaluable in treating infectious diseases in livestock and pets, ensuring that the animals are healthy and live longer, better lives. They are however not a panacea for dealing with all health problems, not in animals and not in people either. A balanced approach, with attention to good hygiene, nutrition and using preventive measures such as vaccination, will ensure that antibiotics remain useful for generations to come.

Jorge knows how important the health of the cattle is to the family business, so he takes great pride in doing his bit to prevent diseases from occurring on the farm by ensuring that the animals are well fed, physically comfortable and given all necessary vaccinations. He has learnt, however, that there is always the risk of diseases spreading, which has inspired him to become a veterinarian himself one day.

To read more about the benefits of antibiotics download our white paper here.