

As a company dedicated to the health and welfare of animals, Elanco Animal Health believes healthy animals are key to solving some of the world’s most pressing issues. To address the emergence of antibiotic resistance leading to compromised treatment outcomes in humans, and animals, Elanco instituted a multi-faceted approach to help protect the long-term viability of antibiotics.

In line with established responsible use practices, Elanco is committed to be a leading advocate for the responsible use of antibiotics through our antibiotic stewardship plan to reduce the need for medically important antibiotics in farm and pet animals.

In 2014, Elanco released an eight-point plan to protect the effectiveness of antibiotics. As scientific evidence grows and consensus is reached within the scientific community, Elanco recognizes the importance of continuing to evolve its policies.

## Why antibiotic stewardship

Antibiotic resistance is a One Health concern. Elanco believes we must all do our part, advancing antibiotic stewardship is important to both public and animal health. Similar to actions in public health, we are committed to the responsible stewardship of antibiotics in veterinary medicine. Antibiotics are a critical tool for ensuring the health and welfare of animals, including the treatment, control, and prevention of disease to help reduce the incidence of morbidity and mortality, and increase the quality of lives of animals. If antibiotics were banned or severely restricted, then veterinarians, farmers, and pet owners would lose the ability to protect animal health, mitigate suffering from disease, and prevent animal death.

Farm animals and pets make a major contribution to people and communities around the world through food security and companionship. Even when best practices are used for good hygiene, animal husbandry, vaccination, and biosecurity, bacterial diseases in farm animals and pets cannot be completely avoided. Elanco’s mission is to improve animals survivability and health. We work to prevent the spread of diseases between animals, and from animals to people, by enabling farmers and pet owners to get access to appropriate medicines for their animals and for these to be used responsibly. As an animal health company, Elanco is dedicated to safeguarding good animal welfare around the world, and we believe supporting the responsible use of antibiotics is one important component of providing best animal care.



At Elanco, we acknowledge antibiotic resistance is a One Health issue and we must do our part to preserve the effectiveness of antibiotics.

Therefore, we support the various layers of protection put in place to ascertain use of antibiotics in animals that pose minimal risk to human health, while still protecting the health of animals. We work closely with regulators and veterinarians to ensure, where infrastructure and regulations allow, antibiotics are used under strict professional supervision, to minimize the potential risk of resistance development.

## Challenges

Consumers, rightly, want to understand more about where their food and their pet's food comes from, how food is produced, and how medicines used for animals could impact human health. We have a responsibility to answer these questions.



We know antibiotic resistance is a natural biological adaptation of antibiotic use by the human, animal, and environmental health communities. We must do more to collaborate with veterinarians, animal health companies, farmers, pet owners, human and environmental health stakeholders to take responsibility and act together in a forward-looking, accountable way, and determine when antibiotics are really needed and how they are used. When antibiotics are needed, responsible use means treating a sick animal with the right dose at the right time to help the animal get better. When a flock or herd of animals has been exposed to a sick infectious animal, it makes sense to give an antibiotic to other in-contact animals who may have been affected, to help control the spread of that infection and improve the survivability of all animals.

It is the responsibility of us all to continue to find new and better ways to keep all animals healthy, produce safe food, and practice good antibiotic stewardship. Along with consistent, thorough application of best practices, the responsible use of antibiotics will help ensure the health of animals and improve food safety for the next generation and beyond.

## Safe, sustainable food and healthy animals

Animal health is fundamental to animal welfare, and environmentally sustainable production of meat, milk and eggs is essential for human nutritional needs. Improved animal health can translate into better welfare and help farmers and ranchers raise animals more efficiently. Healthy animals use their resources for more effectively, reducing the environmental impact of livestock production. Antibiotics are a critical and indispensable tool to support good animal welfare and improve the sustainability of our food production.

Elanco helps veterinarians and farmers deliver safe and healthy meat, milk, fish and eggs to consumers by providing a wide portfolio of not only antibiotics but also vaccines, probiotics and nutritional solutions, and services that enhance knowledge and business decisions on best

management practices and welfare standards. This comprehensive set of products and services helps our customers mitigate diseases that directly impact animal health and welfare, while also controlling zoonotic bacteria of high public health and food safety importance, such as *Salmonella*.

We recognise every farm operation is different. Most importantly, every animal is different. Advances in animal science, farming innovation and veterinary diagnostics allow us to tailor health programs with a focus on preventing disease through better animal care practices, vaccination programs, nutrition, and biosecurity for each individual farm. By understanding the needs of veterinarians and farmers and closely partnering with them, we can minimize and target the use of antibiotics, reducing the risk of antibiotic resistance development.

## Importance of healthy pets

Pets have become increasingly important and integrated into our lives. Beyond companionship, pets have been shown to have a positive impact on the physical and social health of people. Pet ownership has been associated with lowered blood pressure and heart rate and a reduced risk of cardiovascular disease. There is also evidence of enhanced quality of life and improved physical condition resulting from interactions with pets. Considering our close relationship with pets, it becomes paramount to ensure the health of these companions and thus preserve that relationship.

Elanco provides a wide variety of products including vaccines, preventive medications, and a wide selection of therapeutic products to help veterinarians and owners maintain the health and a high quality of life of the pets. Through proper use of these products, they support good health and reduce incidence of diseases which may require antibiotic use. When antibiotics are needed to treat disease conditions in pets, judicious selection and use is not only important to the welfare of the pet but also to preserving the effectiveness of these essential products.



## Elanco's principles toward better antibiotic stewardship

Elanco is committed to working closely with our stakeholders to ensure antibiotics continue to be used responsibly in veterinary medicine.

### Elanco's guiding principles for the responsible use of antibiotics include:

- **Food chain stakeholder engagement:** Help stakeholders across the food chain better understand and implement responsible antibiotic guidelines.
- **Global antibiotic classifications:** Consider the WHO, OIE, National and Regional ranking recommendations.
- **Disease treatment:** Support the administration of an antibiotic to an individual or a

group of animals showing clinical signs of an infectious disease.

- **Disease control:** Support the administration of antibiotics for disease metaphylaxis/control in animals identified by a veterinarian.
- **Disease prevention:** Support the administration of antibiotics for disease prevention/prophylaxis where determined by a veterinarian that animals are likely to get sick.
- **Utilization of risk assessment:** Following a risk assessment process, where regulations allow, support the use of non-medically important antimicrobials for performance indications.
- **Concomitant use:** Two medically important antibiotics of different classes should not be used concomitantly for the same disease indication (unless approved by the regulatory agency, or supported by scientific evidence and/or veterinarian experience).
- **Aquaculture:** Antibiotics in aquaculture is supported where environmental exposure of the antibiotics can be sufficiently controlled to avoid environmental impact or risk of resistance development.
- **Recording of antibiotic therapy:** Antibiotic usage in farm animals should be recorded and kept by the veterinarian and/or the farmer.

## Innovation

We believe antibiotics are only one of the tools needed to maintain animal health and welfare. Pet owners and farmers need innovation to address unmet health needs. Our aim is to prevent disease by supporting veterinarians and farmers with new and improved products for disease prevention, survivability, and early diagnosis of diseases. This will facilitate better and timely interventions to help improve overall animal health and welfare.

We strive to provide innovative solutions to reduce the reliance on medically important antibiotics through our non-medically important antibiotics, vaccines, and nutritional health products. These products can improve intestinal integrity and health, and assist in controlling important viral and parasitic diseases that predispose animals to secondary bacterial infections.

## Aspirational Goals

To reduce the need for antibiotics to treat animal illness, Elanco is increasingly focused on disease prevention and early disease detection. Elanco helps prevention and detection by linking diagnostics and production outcomes with caretaker education and integrated analytics to predict disease risk and design sustainable solutions. With increased knowledge and expanded access to data, a growing product portfolio, and precision application, antibiotic alternatives such as vaccines, enzymes, and probiotics will become more reliable and more effective. Our vision is to move from treatment to prevention, while also proactively developing awareness and technologies that





promote health and survivability even before an animal's life begins. Collectively, this can reduce the need for an antibiotic while maintaining animal welfare and improving food security.

By 2030, Elanco will seek to:

- **Invest more than \$3.5B in innovation** to pursue the discovery and development of products that improve the health and care of animals, including products that would reduce the need for medically important antibiotics.
- **Expand the availability of vaccines, nutritional health products, and diagnostics in underserved markets** that currently rely on medically important antibiotics.
- **Increase access to innovation, knowledge, and partnerships for small-holder farmers** by adapting the value-chain to ensure the responsible use of antibiotics.
- **Communicate with veterinarians and stakeholders** about pharmaceuticals, vaccines, and nutritional health products that potentially reduce the need for medically important antibiotics in animals.
- **Expand engagement with stakeholders**, solicit concerns and expectations of responsible antibiotic use and the responsible care of antibiotics. With these commitments, Elanco continues to build on international guidelines laid out by the OIE and Codex Alimentarius.

Elanco is confident that these actions can meaningfully limit the risk from antibiotic resistance and protect sustainable animal production and pet health well into the future.

\*Ionophores, classed as anticoccidials / antiparasitics, are exempt from this policy



## Glossary

**Antibiotic:** substance with a direct action on bacteria that is used for treatment or prevention of infections or infectious diseases (EPCEU. Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC. 2019)

**Antibiotics resistance:** the ability of micro-organisms to survive or to grow in the presence of a concentration of an antibiotic agent which is usually sufficient to inhibit or kill micro-organisms of the same species (EPCEU. Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC. 2019)

**Antimicrobials:** substance with a direct action on micro-organisms used for treatment or prevention of infections or infectious diseases, including antibiotics, antivirals, antifungals and anti-protozoal (EPCEU. Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC. 2019)

**Antibiotic stewardship:** the actions taken individually and as a profession to preserve the effectiveness and availability of antibiotic drugs through oversight and educated medical decision making while at the same time safeguarding animal, human, and environmental health

**Antiparasitic:** substance that kills or interrupts the development of parasites, used for the purpose of treating or preventing an infection, infestation or disease caused or transmitted by parasites, including substances with a repelling activity (EPCEU. Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC. 2019)

**Control/metaphylaxis:** administer an antibiotic agent to a group of animals containing sick animals and healthy animals (presumed to be infected), to minimise or resolve clinical signs and to prevent further spread of the disease ([www.oie.int/amrstandards](http://www.oie.int/amrstandards))

**Treatment:** administer an antibiotic agent to an individual or a group of animals showing clinical signs of an infectious disease ([www.oie.int/amrstandards](http://www.oie.int/amrstandards))

**Medically important antibiotics:** Antibiotic classes used in human medicine

**Non-medically important antibiotics:** Antibiotic classes not used in human medicine

**Prevention/prophylaxis:** administer an antibiotic agent to an individual or a group of animals at risk of acquiring a specific infection or in a specific situation where infectious disease is likely to occur if the drug is not administered ([www.oie.int/amrstandards](http://www.oie.int/amrstandards))

**Veterinarian:** A person who is registered or licensed by the relevant veterinary statutory body of a country to practice veterinary medicine/science in that country (<https://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm>)