

How are antibiotics given to animals?



- **Veterinarians choose the best route of administration to ensure an antibiotic is delivered effectively**
- **Compliance is key – animals need the correct dose and length of treatment**
- **In-feed is a useful option for veterinarians to avoid stress of handling groups of animals**

Within the EU, antibiotics can only be administered after veterinary prescription. Access to safe, effective antibiotics is an essential component of the veterinary toolbox and prerequisite for maintaining and restoring animal health and welfare, as well as public health.

Routes of administration

In human medicine, the usual route of administration is oral with the patient voluntarily taking a course of tablets. Alternatives include the antibiotic being delivered by application on the skin or by injection, though the latter is usually in a hospital setting.

With animals, the 'patient' may not voluntarily take a tablet! However, the usual routes of administration are the oral one (tablet, drench, in feed or water), the injectable one (subcutaneous, intramuscular or intravenous) or application on the skin. In lactating animals, the intramammary route is also used.

Each route of administration has been designed to facilitate administration and to ensure that the antibiotic reaches its target in an efficient manner.

Compliance is key

The veterinarian's prescription determines the dose and length of treatment of antibiotics; many studies show that compliance is essential to limit the risk of developing antibiotic resistance. This means following the right length of treatment, at the right dose for the right duration of time. Therefore, when a veterinarian decides an antibiotic is necessary, they choose the best route to give the medicine to ensure the animal (or group of animals) receive the full course of treatment.

In terms of oral administration, in-feed and water application can be used where it is beneficial to avoid the need to 'handle' the animal, alleviating any associated stress on both the animal and the person administering the antibiotic – many of us can associate with this in terms of administering a tablet to a cat! It is also a particularly relevant route of administration for a group of animals where some in the group are already showing signs of illness with a contagious disease, and those living alongside them are extremely likely to have been infected already. The in-feed and water routes in that case are especially useful options – this is for instance the case with fish, poultry and pigs.

Antibiotic Information Leaflets

As little as possible, as much as necessary

Where an individual or a small number of animals are to be treated, the tablet, drench, injection, or intramammary route may be most appropriate depending on the area of infection such as the digestive tract, an internal organ, a mammary gland, etc.

In all cases, a veterinarian must write a prescription before any antibiotic, via whatever route, can be administered to an animal.

IFAH-Europe supports the Responsible Use of antibiotics. This means use in the context of biosecurity, good housing and ventilation, good hygiene, appropriate nutrition and robust animals, regular monitoring of animal health and welfare, animal health planning, use of diagnostics, vaccination, and using and maintaining the pharmacovigilance system when necessary, as well as the use of antibiotics under veterinary prescription, as required by law.

Responsible Use also means ensuring transparency on how antibiotics are used. This will require veterinarians to electronically report data on individual farm use to the relevant authorities. With animal population data to hand, authorities will be able to compare the intensity of use on individual farms and intervene as necessary.

These antibiotic information leaflets are meant to inform the debate and to try to ensure that focused policy decisions are made to tackle the threat posed by antibiotic resistance – a threat we take very seriously.

“As little as possible, as much as necessary” – for more information on Responsible Use, check www.epruma.eu

IFAH-Europe is the representative body of manufacturers of veterinary medicines, vaccines and other animal health products in Europe. IFAH-Europe's membership covers 90% of the European market for veterinary products. Member companies invest over €400 million in research and development every year. IFAH-Europe promotes a single market in veterinary medicines across the EU ensuring the availability of medicines to protect the health and welfare of animals.

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