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# Code of Good Practice Regarding the Responsible Use of Antimicrobials in Horses



These guidelines have been developed by Equine Veterinary Practitioners and Teagasc to guide good practice in the responsible use of antimicrobials in horses, in response to the global societal challenge of antimicrobial resistance



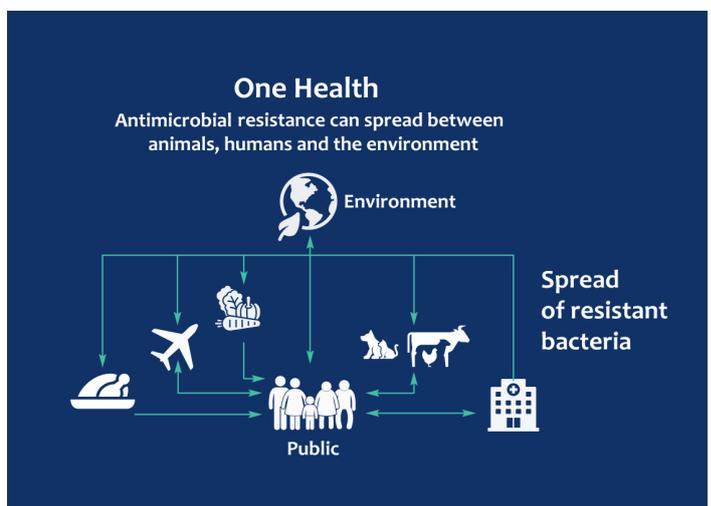
# Addressing antimicrobial resistance

**Antimicrobial resistance is one of the greatest human and animal health crises in the world today.**



An antimicrobial is an antibiotic, antiviral, antifungal or antiprotozoal medicine used to treat disease or infection. Antimicrobial Resistance (AMR) occurs when an antimicrobial that was previously effective, is no longer effective to treat an infection or disease caused by a microorganism. In the context of this Code of Good Practice, the term AMR refers more specifically to resistance of bacteria to antibiotics, i.e. antibiotic resistance. Reducing the use of antimicrobials will reduce the level of AMR in human and animal health. AMR is a One Health issue which impacts human health, animal health and the environment.

Veterinary clinicians play a critical role in preserving the efficacy of these antimicrobials,





such as antibiotics, for use in both humans and animals. They do so, first and foremost, by promoting disease prevention (through vaccination and biosecurity measures); and thereafter by only prescribing antimicrobials for use in animals when they are fully indicated, at the appropriate dose and for the appropriate duration.

The owners/keepers of horses in Ireland also have an important role to play in addressing the development and spread of AMR, by working in collaboration with their vet to ensure an environment that minimises the risk of the occurrence and spread of disease. In so doing, they are protecting animal health and welfare, and may realise a significant economic benefit, whereby the use of expensive medicines is avoided unless absolutely necessary.

When prescribing antimicrobial medicines, a veterinary practitioner must operate within the parameters of the current legislation. However, they are also permitted clinical freedom and the discretion to deal with a wide range of situations on the ground. Individual practitioners should assess all the relevant factors, and then design a treatment plan that is tailored to the specific circumstances and features of the case in question. These guidelines are intended to provide support and guidance for horse owners to minimise the use of antimicrobials through disease prevention and also to ensure that when it is necessary to use antimicrobials, that they are used responsibly.

# The owner's role

## The role of the horse owner or keeper in preventing disease and reducing the use of antimicrobials

A focus on disease prevention to minimise the need for antimicrobial use is key to addressing AMR. Disease prevention requires ongoing collaboration and discussion by the owner or keeper with their vet. There are several strategies that owners can utilise to reduce the risk of infection occurring in the first place. Strategies for horse owners or keepers to optimise equine health and welfare include the following:

- ▶ Implement a yard **vaccination and deworming** programme, developed in consultation with your vet, and specific to the circumstances of the farm, to keep the health status of the herd high;
- ▶ Be conscious of **air quality**: mild to severe asthma, caused by dust and other allergens in the environment, is common in horses and this can make them more susceptible to infectious respiratory disease. Aim to provide good air quality through well-ventilated housing and exercise areas, and reduce exposure to dust and other allergens;
- ▶ Provide plenty of **clean, fresh water** and check the water source often for contamination;
- ▶ Check the **feed** sources regularly for mould and contamination by birds and rodents that carry diseases that affect horses. Store feed and forage to prevent contamination;
- ▶ Maintain appropriate **stocking density** to reduce stress levels and limit the ability of disease to spread from one horse to another;
- ▶ Manage young stock separately to breeding stock, and separate these from competition/other stock;
- ▶ Have a rigorous **cleaning and disinfection** plan for stabling, equipment, transport vehicles and high traffic areas such as walkers, stocks etc., and a plan to deal with horses that become sick;
- ▶ Closely observe all new arrivals and those returning to the yard, in **quarantine** for two weeks before introducing them to the general yard.

Reduce  
AntiMicrobial Use



Reduce AMR





# Responsible use of antimicrobials

## The six Rs for veterinary treatment of bacterial infections in horses

It is accepted that despite implementing disease prevention measures such as those listed under *The Owner's Role*, it is still possible that disease may occur that will require antimicrobial treatment. If this is the case, and it is necessary to use antimicrobials such as antibiotics, then the six Rs of responsible use should be followed.

The six Rs for veterinary treatment of bacterial infections in horses are as follows:



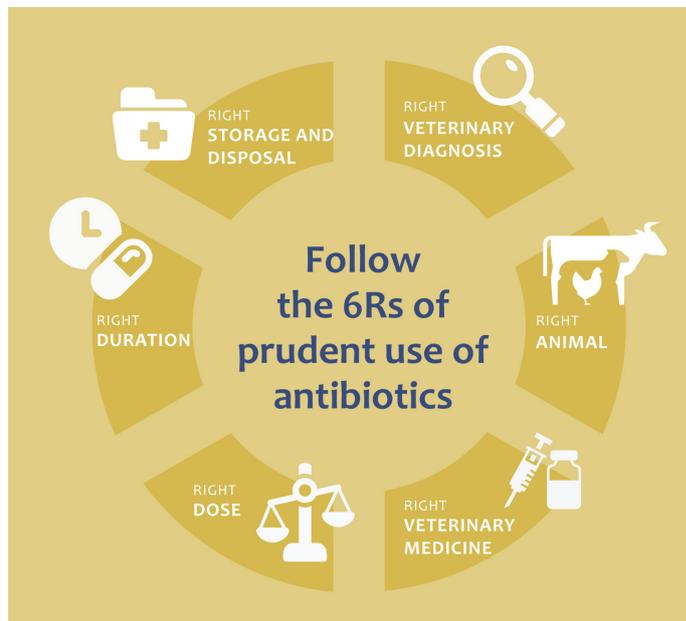
**1 Right Diagnosis** – by a vet who has the animal under their care; and can follow up for further treatment, if required, or if complications arise. Antimicrobials require a prescription because your vet has the required expertise to determine if the use of antimicrobials is appropriate. Antibiotics are only effective to treat disease caused by bacteria, and so it is your vet that must diagnose the type of disease present and determine if an antibiotic is needed to treat the infection or not.



**2 Right Horse** – ensure the correct horse(s) is identified for antibiotic treatment and only the horse that has been diagnosed with a bacterial disease receives antibiotic treatment.



**3 Right Veterinary Medicine** – the vet should select the right drug for the likely pathogen and site of infection, considering pharmacological and clinical aspects such as the absorption, tissue penetration, potential inactivation and potential toxicity of the medicine in the particular patient, and culture and sensitivity (C&S) results where available.



**4 Right Dosage** – the vet will prescribe the correct dosage for the owner to use, and the owner should ensure that the appropriate amount is administered, at the correct interval and route of administration as advised by their vet.



**5 Right Duration** – always use the antibiotic for as long as your vet has prescribed it for. The duration of treatment will be recorded on the prescription.



**6 Right Storage and Disposal** – ensure that medicine is stored correctly, at the correct temperature and in conditions that will not have a negative impact on the efficacy of the medicine. Storage should also be secure. Ensure responsible disposal of the any remaining medicine and packaging. Correct disposal is very important to ensure that any unused antimicrobials do not contaminate the environment. If antimicrobials such as antibiotics are not disposed of correctly then they can contribute to the development and spread of AMR in the environment. The environment can act as a source of resistant bacteria that can cause disease in animals or people.

# The vet's role

## New veterinary medicines legislation and the role of the vet in reducing the use of antimicrobials

New legislation Regulation (EU) 2019/6 controlling the supply and use of veterinary medicines came into force on the 28th of January 2022. A key objective of the legislation is to protect people from the global public health challenge of antimicrobial resistance. This new legislation requires prudent use of antimicrobials into the future in order to protect their efficacy for current and future generations. There are particular controls and restrictions on the prescribing and use of antimicrobials.

A prescription is an important document which supports responsible use of antimicrobials. Your vet must issue a veterinary prescription when administering and dispensing antimicrobials. You must keep and follow the prescription, which will tell you the dose and duration of treatment with the antimicrobial. The veterinary medicines legislation also requires a horse owner or keeper to keep records of horses treated, with details such as identification of horse treated, the name of drug administered, dose, duration and recommended withdrawal period (for competition and/or horses entering the food chain).

Antimicrobials cannot be prescribed routinely to address disease occurring as a result of poor animal care and management. There are also restrictions in relation to prescribing and use of antimicrobials in situations where there is no disease currently present. Preventive or 'just in case' use (e.g. prior to transport; in healthy new-born foals; clean surgeries in healthy animals, after intra-synovial medication/block) is only permitted in exceptional individual cases, when the risk of infection

is unavoidably high or the consequences are likely to be severe. Prescribing for the treatment of horses that are in contact with a sick horse is only permitted when the risk of spread of infection in the group is high and where no other appropriate alternatives are available.

Given the focus on protecting public health, this legislation also provides a list of antimicrobials that cannot be used in animals because of their importance in human health. When your vet is prescribing antimicrobials, they consider the category of antimicrobial that is most appropriate, bearing in mind the importance of certain classes on antimicrobials in human health. Certain classes of antimicrobials are considered drugs of last resort in human healthcare, referred to as Highest Priority Critically Important Antimicrobials (HP-CIAs). These HP-CIAs should no longer be prescribed as first-line treatment choices, and vets must justify their prescribing decisions in order to comply with the new legislation.

### In summary

Addressing the public health challenge of antimicrobial resistance requires everyone to act responsibly, whether that is in human healthcare or in the animal health sector. Keeping antimicrobials working effectively into the future requires action now. Horse owners or keepers have a key responsibility to take action to prevent disease occurring in their horses. If, in spite of their best efforts, disease does occur, then following the six Rs will deliver the best possible outcomes for horses, owners and society as a whole.

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