



Australian Veterinary Association

# Prescribing veterinary antibiotics

Some bacteria can pass on resistance genes to other bacteria. Veterinarians contribute to the fight against antimicrobial resistance by following high standards of infection control to reduce antimicrobial use and responsible prescribing practices whenever antimicrobial use is required.

- Only prescribe antimicrobials when you have a diagnosis or strong clinical suspicion of bacterial disease.
- Base your choice of antimicrobial on your assessment of the susceptibility of the bacteria you believe are implicated in clinical disease but ideally after isolation and sensitivity testing.
- Special consideration of antimicrobial selection and use is important for immune-compromised patients e.g. use bactericidal rather than bacteriostatic agents.
- Routine prophylaxis like dental care, parasite control, infection control, hygiene, animal husbandry and vaccinations can minimise antimicrobial use in the longer term by preventing infection.
- Choose antibiotics that are non-critical to human care wherever possible, especially when low dose long term usage is planned, such as for prophylaxis for necrotic enteritis in poultry.
- Proper preparation and cooking of animal products removes the risk of transfer of bacterial resistance
- Practise appropriate hygiene precautions between humans and animals when either is being treated with antimicrobials.
- Consider withholding periods and export slaughter intervals in food animals when selecting antimicrobials.
- Provide written advice to clients on withholding periods and export slaughter intervals when antimicrobial drugs are used off label.
- In clinical settings, veterinary staff need to practise good infection control such as those in the animal handling guidelines below.
- AVA recognises Australia's conservative approach to the approval of antimicrobials, including antimicrobial growth promotants, and supports use according to approved label directions.
- Off-label use of antimicrobials should be undertaken cautiously, only when necessary and according to the AVA *Prescribing and dispensing guidelines*.

## Selecting antibiotics

- Consider the likely infecting pathogens and pharmacological and microbiological properties of the antimicrobial agent
- Consider the specificity and spectrum of antimicrobial, using the narrowest appropriate spectrum of activity
- Consider spectrum of antimicrobial activity and bactericidal versus bacteriostatic activity
- Consider potential adverse effects of particular antimicrobials
- Consider inter-current disease such as kidney or liver disease and its influence on efficacy and the risk of toxicity.
- Consider pregnancy, age and other physiological states that may influence drug action.

## Using antimicrobials off-label

- Only prescribe off-label when there is no appropriately labelled registered veterinary drug available.
- Preferably only prescribe off-label after sensitivity testing.
- Isolate the treated animal if possible.
- Use only on individual animals.

## Prophylactic antimicrobial use in surgery

- Should be considered where the consequences of sepsis would be significant and potentially irreversible.