



# JOINT AABP-AVC JUDICIOUS THERAPEUTIC USE OF ANTIMICROBIALS IN CATTLE

*The AABP and the AVC are committed to antimicrobial stewardship, which includes an emphasis on preventive health programs including husbandry, biosecurity, routine examinations and immunization. These guidelines are intended as an aid in preserving the effectiveness and availability of antimicrobial drugs through conscientious oversight and responsible medical decision making, while safe-guarding animal, public and environmental health.*

The AABP and the AVC recognize that antimicrobials remain necessary for animal health to treat, prevent and control infectious disease in beef and dairy cattle and emphasizes that preventive health programs can reduce the occurrence of disease and therefore the need for antimicrobials.

Antimicrobial stewardship refers to the actions veterinarians take individually and as a profession to preserve the availability and effectiveness of antimicrobial drugs through conscientious oversight and responsible medical decision making while safe-guarding animal, public and environmental health. Such stewardship involves maintaining animal health and welfare by implementing a variety of preventive and management strategies to prevent common diseases; using an evidence-based approach in making decisions to use antimicrobial drugs; and then using antimicrobials judiciously, sparingly and with continual evaluation of the outcomes of therapy, respecting the client's available resources. Following are the AABP's and AVC's general guidelines for the judicious use of antimicrobials in beef and dairy cattle.

- The veterinarian's primary responsibility is to help design management, immunization, housing and nutrition programs that will aid in reducing the incidence of disease and the need for antimicrobials.
- Antimicrobials should only be used if there is a valid reason, after consideration of therapeutic alternatives, and within the confines of a valid veterinarian-client-patient relationship. These

guidelines apply to both dispensing of antimicrobials and issuance of prescriptions or veterinary feed directives.

- Veterinarians should properly select, prescribe and use antimicrobial drugs:

- The veterinarian should select an antimicrobial drug, product and regimen that is likely to be effective given strong clinical evidence of the identity of the pathogen causing disease and based on clinical signs, history, necropsy examination, laboratory data and clinical experience.
- Treatment programs should reflect best-use principles. Regimens for antimicrobial use should be optimized using current pharmacological and microbiological information and principles. This includes using antimicrobials at an appropriate dosage, for the shortest appropriate period, and in the smallest number of animals reasonable. The use of antimicrobials should be based on an evaluation of animal-specific risk factors rather than standard practice.
- Whenever possible, label instructions should be followed to include using antimicrobials labeled for the condition diagnosed following the labeled, dose, route, frequency, duration and withholding period.
- Extralabel drug use must occur only within the provisions of the AMDUCA regulations.
- Compounding of antimicrobials from bulk compounds for use in cattle is prohibited.



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- Combination antimicrobial therapy should be discouraged unless there is information to show an increase in efficacy or suppression of resistance development.
- Drug integrity should be protected through proper handling, storage and observation of the drug's expiration date.
- Veterinarians prescribing antimicrobials should aspire to ensure proper use in the production facility through oversight of all antimicrobials used, regardless of where they were purchased.
  - Prescription or dispensed drug quantities should be appropriate to the production unit size and expected need, so that stockpiling of antimicrobials on the production unit is avoided.
  - The veterinarian should have a role in training production facility personnel who use antimicrobials. This training should include indications, dosages, withdrawal times, route of administration, injection site precautions, storage, handling, record keeping and accurate diagnosis of common diseases. The veterinarian's role should be ongoing to ensure that all employees remain current on antimicrobial use.
- Veterinarians are encouraged to provide written or computerized treatment protocols to clients that describe indications, meat and milk withdrawal times, and instructions for antimicrobial use in the production facility. All FDA record-keeping requirements must be followed.
- The veterinarian should regularly monitor antimicrobial use on the production facility by reviewing and reconciling treatment records, drug inventory and drug purchase history. The veterinarian should monitor labels to ensure that they are accurate and that the labels will enable animal caretakers to correctly use antimicrobials.
- Veterinarians should participate in continuing education programs that address therapeutics and antimicrobial resistance.

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