



# ANTIMICROBIAL STEWARDSHIP

As defined by the American Veterinary Medical Association (AVMA), antimicrobial stewardship refers to the actions veterinarians take individually and as a profession to preserve the effectiveness and availability of antimicrobial drugs through conscientious oversight and responsible medical decision-making while safeguarding animal, public and environmental health. Stewardship involves:

- Preventing common diseases through preventive and management strategies.
- Using evidence-based approaches to make decisions about antimicrobials.
- Using antimicrobials judiciously and sparingly and with evaluation of outcomes of therapy.

The American Association of Small Ruminant Practitioners (AASRP) endorses this definition and encourages small ruminant veterinarians to follow the five core principles of antimicrobial stewardship also outlined by the AVMA: commit to antimicrobial stewardship, advocate for a system of care to prevent common diseases, select and use antimicrobials judiciously, evaluate antimicrobial use practices and educate and build expertise.

## JUDICIOUS USE

Are you implementing practices to improve antimicrobial prescribing? Have you considered what barriers to appropriate antimicrobial selection and use exist in your practice? Guidelines for improving judicious use include the following:

- Antimicrobial selection and use should involve veterinary oversight within a

veterinarian-client-patient relationship (VCPR).

- The need for antimicrobial drugs should be carefully considered, keeping the following in mind:
  - Use appropriate diagnostics to establish presumptive or definitive diagnosis.
  - Consider disease severity and prevalence of bacterial disease when selecting drug and regimen.
  - Estimate the likelihood of response to antimicrobials: will antimicrobials change the outcome in the animal or group of animals?
- Consider non-antimicrobial options prior to, instead of, or in conjunction with antimicrobials.
- Select drugs and optimize regimens for antimicrobial therapy by using the appropriate pharmacological and microbiological science, as well as regulatory requirements and guidance.
  - Use laboratory support when available.
  - Follow label directions or follow AMDUCA and FDA regulations if extra-label use is needed.
  - Use the best available research and practice-based data to support antimicrobial choice and regimen.
- Record antimicrobial use in medical records in a manner that allows for review of clinical outcomes.
  - Carefully evaluate the need for continued use of an antimicrobial in individual patients or group by monitoring patient(s) outcomes on an ongoing basis.

## RESOURCES

### AVMA

- Core Principles of Antimicrobial Stewardship: <https://www.avma.org/sites/default/files/2020-10/AntimicrobialResistanceReport-StewardshipBranded.pdf>
- Antimicrobial Resistant Pathogens Affecting Animal Health in the United States: <https://www.avma.org/sites/default/files/2020-10/AntimicrobialResistanceFullReport.pdf>
- AMDUCA Algorithm: [https://www.aasv.org/documents/extralabel\\_brochure.pdf](https://www.aasv.org/documents/extralabel_brochure.pdf)

**CLSI VET09:** Understanding Susceptibility Test Data as a Component of Antimicrobial Stewardship in Veterinary Settings, 1st Ed.

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