

# veterinary checklist for **ANTIMICROBIAL STEWARDSHIP**

This checklist complements the AVMA's Definition and Core Principles of Antimicrobial Stewardship in Veterinary Medicine and will help you implement antimicrobial stewardship in your practice. Use the checklist initially to establish a baseline, then to regularly review progress.

## **COMMIT TO STEWARDSHIP**

**Have you demonstrated your commitment to, and accountability for, prescribing antimicrobials responsibly?**

- Publicly display a statement affirming your commitment to antimicrobial stewardship.
- Appoint and empower a champion who is responsible for promoting antimicrobial stewardship in your practice.
- Include stewardship-related duties in position descriptions and performance evaluations.
- Identify the most common clinical conditions treated with antimicrobials in your practice. Use these as the focus for your stewardship efforts.
- Identify the most common cases of antimicrobial resistance you observe and discuss with your team how they might best be managed.
- Establish how your practice will communicate your expectations for antimicrobial use to clients and animal caretakers.
- Create a plan for how you will implement stewardship policies, identify barriers that may be encountered at each stage, and discuss progress as a team to increase your likelihood of success.

## **ADVOCATE FOR A SYSTEM OF CARE TO PREVENT COMMON DISEASES**

**Are you promoting prevention and management strategies that minimize the need for antimicrobials?**

- Identify the most common preventable diseases seen in your practice, and work with your team to develop prevention protocols based on published guidelines and consensus among practice veterinarians.
- Identify and address any barriers to adopting these disease prevention strategies.
- Develop strategies to improve client compliance with preventive care recommendations.
- Design and implement, and then monitor and regularly review and update detailed written biosecurity and infection prevention and control plans.
- Make infection prevention and control resources and supplies readily available.
- Implement good animal husbandry and management practices for ventilation, bedding or litter, feed and water sanitation, nutrition, animal density, pasture/fish pen or pond management and rotation, birthing/hatching, and weaning age to minimize animal stress and prevent acquisition and spread of infectious diseases.



## SELECT AND USE ANTIMICROBIALS JUDICIOUSLY

### Are you implementing practices to improve antimicrobial prescribing?

- Use available consensus-driven guidelines for diagnosis and therapy to manage bacterial infections.
- Make current antimicrobial stewardship resources easily accessible to your team.
- Use an antimicrobial “time out” to reassess the need for and choice of antimicrobials. (*See below.*)
- Use delayed prescribing, or watchful waiting, if a patient’s disease might not be caused by bacteria.
- Shorten the duration of antimicrobial therapy when appropriate.
- Critically assess the need for prophylactic antimicrobials, as well as their selection and duration.
- Consider alternative case management and therapeutic options to reduce the need for systemic antibiotics when appropriate.
- Record the indication(s) for antimicrobials in patient records and client communications.
- Develop a practice-specific stewardship plan that includes protocols for antimicrobial administration/ prescribing and infection control and prevention, based on AVMA policies and other published guidelines.

### Taking an antimicrobial “time out”<sup>1</sup>

#### Reassessing need for and choice of antimicrobials

- Is there an underlying disease that will be addressed successfully with antimicrobial therapy?
- Do laboratory results and clinical findings confirm the need for an antimicrobial drug and your choice of antimicrobial?
  - If culture results are available, is the bacterial isolate the cause of disease, a secondary invader, or a contaminant?
  - If culture/susceptibility reports are available, was the first-choice empirical antimicrobial the right choice?
  - If more than one antimicrobial was prescribed initially, can you discontinue one or more?
- Is the patient improving after receiving the antimicrobial you have prescribed? If not, it may be time to discontinue the drug and consider alternative therapies.
- Has a clinical cure been achieved? If so, it might be time to discontinue therapy if legally permissible.

1. AVMA Task Force on Antimicrobial Stewardship in Companion Animal Practice: Activities August 2013 – December 2015 ([https://www.avma.org/KB/Resources/Reports/Documents/TFASCAP\\_Report.pdf](https://www.avma.org/KB/Resources/Reports/Documents/TFASCAP_Report.pdf))

## EVALUATE ANTIMICROBIAL USE

### Do you monitor antimicrobial prescribing by your team?

- Maintain an inventory of the antimicrobials kept in your facility. Remove any that are unnecessary or outdated. The AVMA's guidance on Disposal of Unwanted Medications can help.
- Document any adverse events or complications from antimicrobial use, and report them to the drug manufacturer and the FDA.
- Review your clinic's antimicrobial prescribing practices. Assess how decisions are made to prescribe antimicrobials, including decisions about dosage, route, frequency, and duration for common bacterial infections and drug-resistant bacteria. (*See below for questions to ask.*)
- Compare your antimicrobial prescribing practices to published consensus guidelines for common conditions.
- Evaluate how often antimicrobials are prescribed (as a percentage of all cases).
- Assess how often samples are submitted for culture and susceptibility testing (as a percentage of cases).
- Assess how often resistant bacteria are identified from culture reports (as a percentage of reports).
- Document antimicrobial resistance trends and look for patterns of association with a particular procedure, location, or clinical condition.
- Engage with veterinary diagnostic laboratories to provide facility or regional antibiograms.
- Require your designated antimicrobial stewardship champion to meet periodically with your team to review and update your stewardship program and address areas needing improvement.

### Reviewing your clinic's antimicrobial prescribing practices<sup>1</sup>

#### Questions to consider when periodically reviewing the use of antimicrobials for animals diagnosed with a specific disease.<sup>2</sup>

- Was appropriate diagnostic testing offered or performed to identify an underlying cause? What percentage of cases had samples submitted for culture?
- Were the antimicrobials most often used to treat this disease used in accord with available guidelines?
- In addition to route, dose, frequency of administration, and duration, was the indication for antimicrobial drug therapy clearly described in the medical record?
- Could alternate therapeutic options (e.g., topical therapy, change in management practice) have been used to manage the disease?
- What was the frequency of resistance to empirically used antimicrobial drugs?
- What was the frequency of infections caused by multidrug resistant bacterial isolates?
- Were antimicrobial drug-resistant infections associated with a particular procedure, device, treatment area, or housing type?

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2. Sweeney MT, Lubbers BV, Schwarz S, Watts JL. Applying definitions for multidrug resistance, extensive drug resistance and pandrug resistance to clinically significant livestock and companion animal bacterial pathogens. *J Antimicrob Chemother.* 2018 Jun 1;73(6):1460-1463. doi: 10.1093/jac/dky043.



## EDUCATE AND BUILD EXPERTISE

Do you educate clients and seek continuing education about prescribing antimicrobials and antimicrobial stewardship?

- Speak with clients about when antimicrobials are and are not needed.
- Educate clients about potential risks of antimicrobial treatment to the animal being treated, other animals, or people who come in contact with the animal being treated, and the environment.
- Make continuing education related to antimicrobial stewardship available to your team.
- Participate in continuing education and quality improvement activities to keep abreast of new developments and best practices for antimicrobial prescribing.
- Consult with experts on antimicrobial use and stewardship.



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