# Update on the AVMA Committee on Antimicrobials

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# Evolution of AVMA committees on antimicrobial stewardship

- 1998: Steering committee created first AVMA policy on judicious therapeutic antimicrobial use
  - Species groups followed with their own policies
- 2009: Antimicrobial Use Task Force was created to clarify the role of the veterinarian and level of vet involvement in all uses of antimicrobials
- 2011: Veterinary Oversight Steering Committee was created to work with FDA on the Veterinary Feed Directive
  - Vet must be licensed in the state in which the animals reside and must comply with the tenets of the VCPR in that state
- 2013: Taskforce for ABX Stewardship in Companion Animal Practice



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# The veterinarian-client-patient relationship (VCPR)

- The veterinarian has assumed the responsibility for making clinical judgments regarding the health of the patient and the client has agreed to follow the veterinarian's instructions
- The veterinarian has sufficient knowledge of the patient to initiate at least a general or preliminary diagnosis of the medical condition of the patient
- The veterinarian is readily available for follow-up evaluation
- The veterinarian provides oversight of treatment, compliance, and outcome
- Patient records are maintained



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# AVMA Committee on Antimicrobials (CoA)

- 2016: COA envisioned as the lead AVMA entity for all antimicrobial issues
- Antimicrobial use, resistance, and stewardship policy development
- Collaboration with human medical entities, the CDC , and international bodies on antimicrobial issues
- AVMA response to legislative and regulatory issues
- Creation of tools and information for AVMA members and others




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# First CoA task

## 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?**

## ANTIMICROBIAL STEWARDSHIP
## definition and core principles

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### ANTIMICROBIAL STEWARDSHIP FOR VETERINARIANS DEFINED

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.

### CORE PRINCIPLES OF ANTIMICROBIAL STEWARDSHIP IN VETERINARY MEDICINE

Antimicrobial 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.

The following principles can be used to develop antimicrobial stewardship plans in any veterinary practice setting.

1. **Commit to stewardship**
   - Engage all practice members and relevant stakeholders in the stewardship effort.
   - Develop stewardship plans that incorporate dedication to and accountability for disease prevention and that also optimize the prescribing, administration, and oversight of antimicrobial drugs.
   - Identify high-priority conditions that are commonly treated with antimicrobial drugs on which to focus stewardship efforts.
   - Demonstrate commitment to systematically assessing the outcomes of antimicrobial drug therapy.
   - Identify one or more individuals to lead the stewardship plan and provide accountability.
2. **Advocate for a system of care to prevent common diseases**
   - Identify barriers to improving disease prevention.
   - Work with clients to adopt preventive and management strategies to minimize the need for antimicrobial drugs. These strategies include animal husbandry and hygiene, biosecurity and infection control, nutrition, and vaccination programs.
   - Consider alternatives to antimicrobial drugs.
3. **Select and use antimicrobial drugs judiciously**
   - Identify barriers to appropriate antimicrobial prescribing and usage.
   - Use an evidence-based approach for making a diagnosis and determining whether an antimicrobial drug is indicated.
   - Make an informed selection of an appropriate antimicrobial drug and regimen.
   - Refer to relevant veterinary medical guidelines for judicious therapeutic use.
   - Assess outcomes of antimicrobial use.
4. **Evaluate antimicrobial drug use practices**
   - Encourage development of a program for the evaluation of antimicrobial drug prescribing at the veterinary-practice or aggregated levels.
   - Ensure that feedback is provided to veterinarians.
   - Support analyzing and sharing of antimicrobial drug use data while preserving veterinarian-client confidentiality.
   - Engage clients to identify barriers to implementation of stewardship programs and to evaluate antimicrobial storage, administration, and other use practices.
5. **Educate and build expertise**
   - Make resources available and encourage the development of expertise in antimicrobial stewardship.
   - Keep up-to-date on strategies for disease prevention, use of antimicrobial alternatives, and selecting and using antimicrobial drugs.
   - Critically appraise and then implement appropriate existing clinical guidelines for antimicrobial use.
   - Provide client education on antimicrobial stewardship, including conditions when antimicrobial drugs are not needed.
   - Support research on antimicrobial drug use and resistance.

### USING THESE PRINCIPLES, VETERINARIANS ARE URGED TO TAKE ACTION

Implement one or more principles of antimicrobial stewardship to improve disease prevention strategies and antimicrobial drug prescribing, assess the outcomes, and modify plans as needed.



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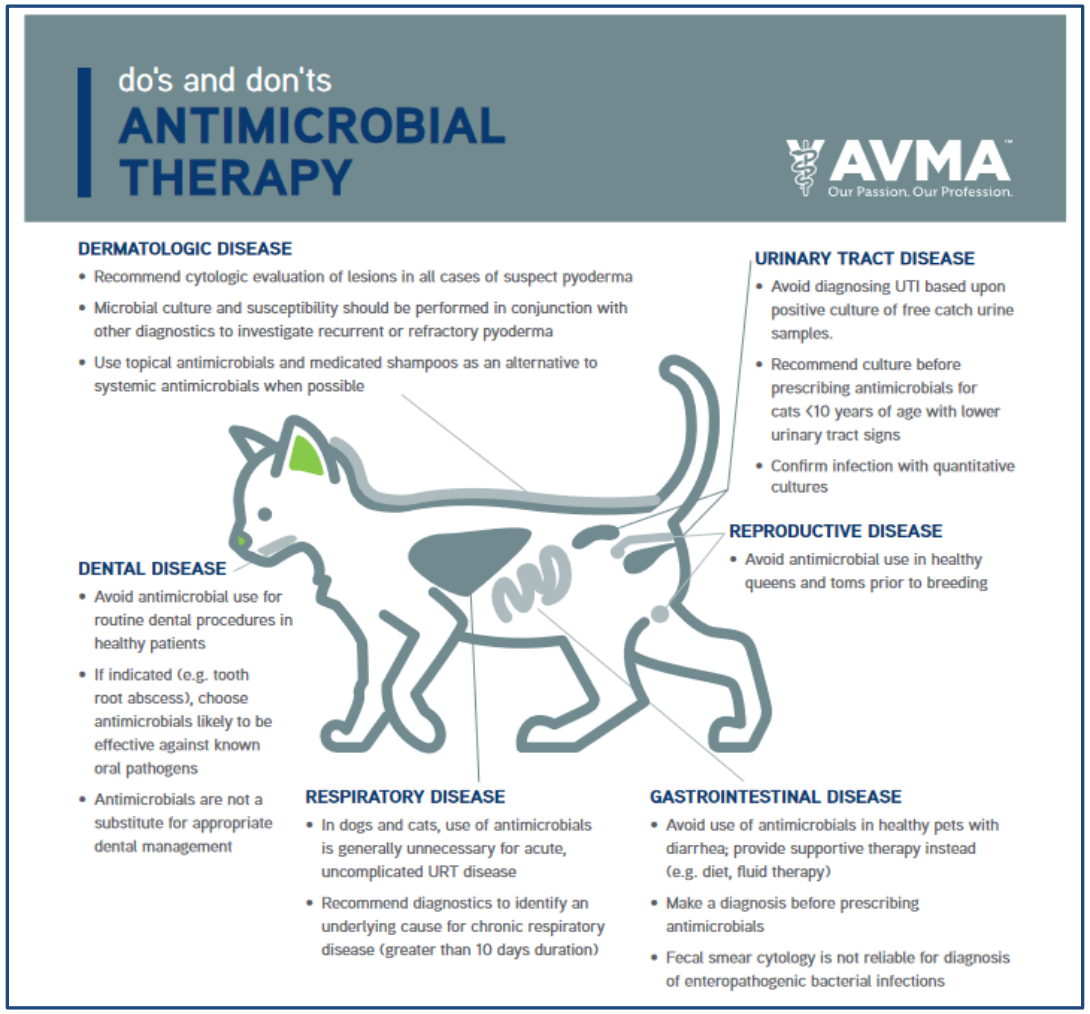
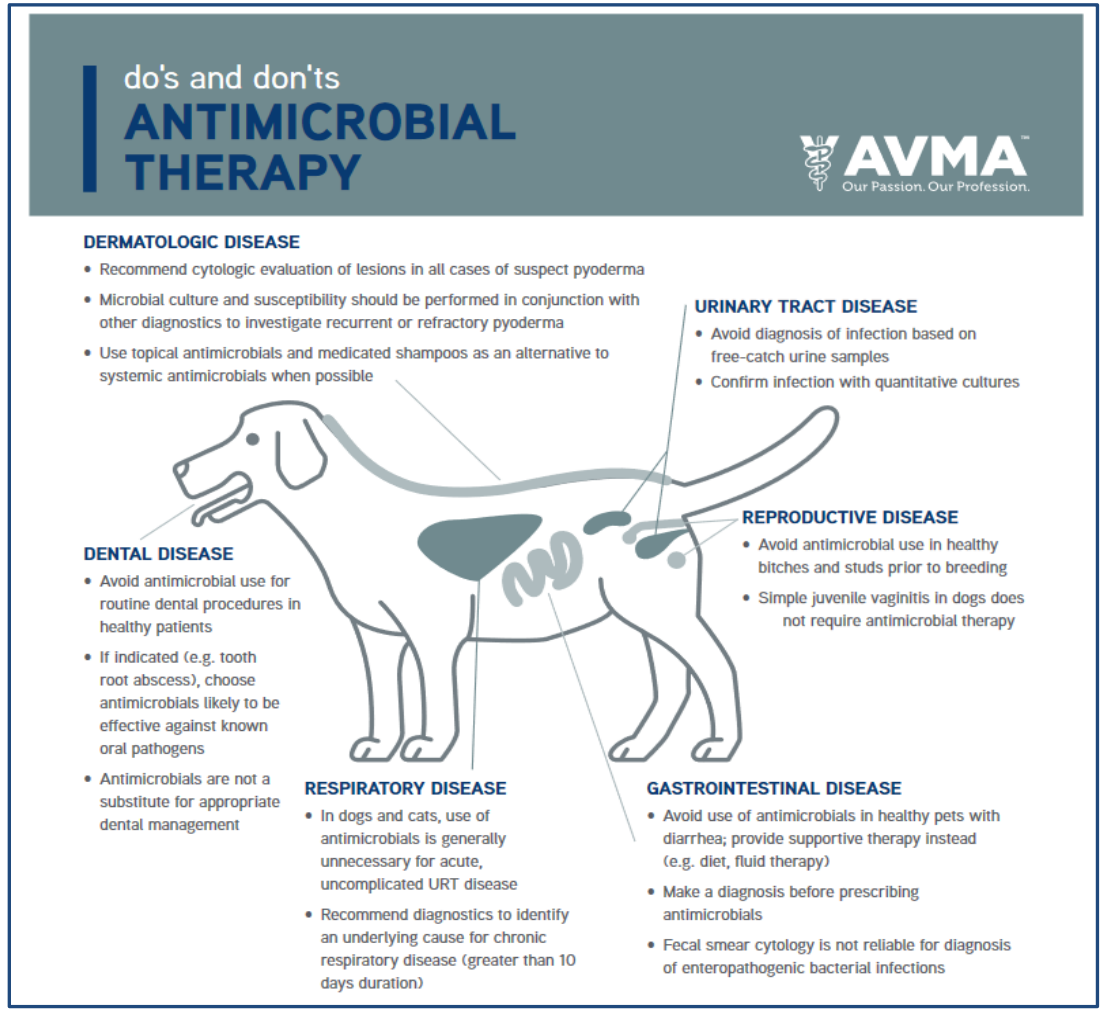
# Tools for veterinarians




https://www.avma.org/resources-tools/one-health/antimicrobial-use-and-antimicrobial-resistance/antimicrobial-use-veterinary-practice



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# Tools for veterinarians

## Equine

- American Association of Equine Practitione
  antimicrobials guidelines

## Honeybees

- Honeybees 101 for veterinarians

## Poultry

- AAAP guidelines for judicious therapeutic u
- Backyard chickens 101: A quick guide to urb
  veterinarians

## Small ruminants

- American Association of Small Ruminant P
  stewardship guidelines

## Guidance by species

Veterinarians use professional expertise and discretion in making cli
decisions based on factors unique to each patient, client, or veterina
practice. The following resources should not be interpreted as estab
standards of care. Variations may be warranted based on factors uni
the patient, client, or veterinary practice.

## Aquatic

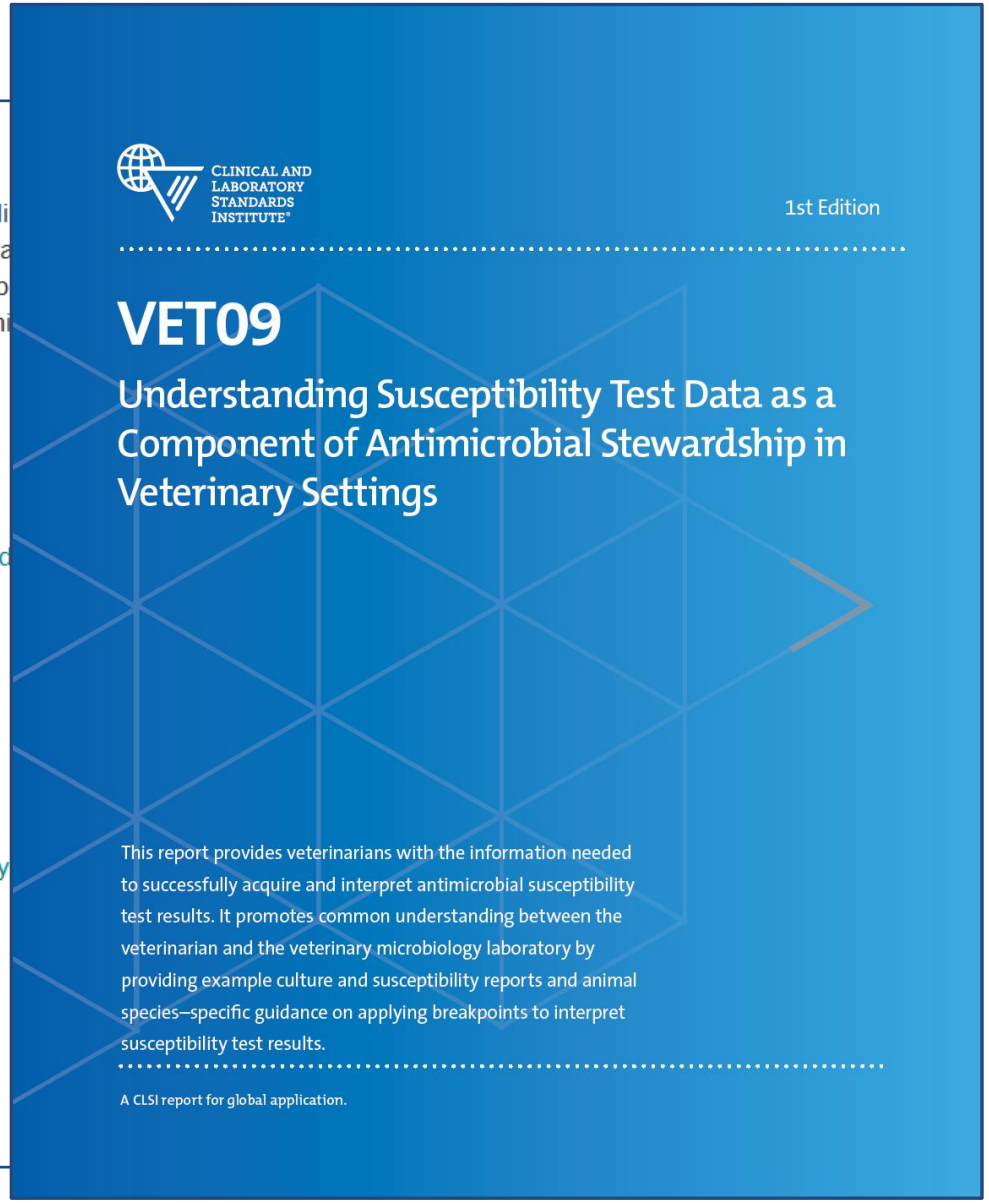
- Judicious therapeutic use of antimicrobials in aquatic animal med
- Aquaculture Fish Health (NOAA)

## Bovine

- AABP judicious therapeutic use of antimicrobials in cattle
- Antimicrobial Stewardship Education for the food animal industry
  Armor)

## Companion animal

- Report of the AVMA Task Force on Antimicrobial Stewardship in
  Companion Animal Practice

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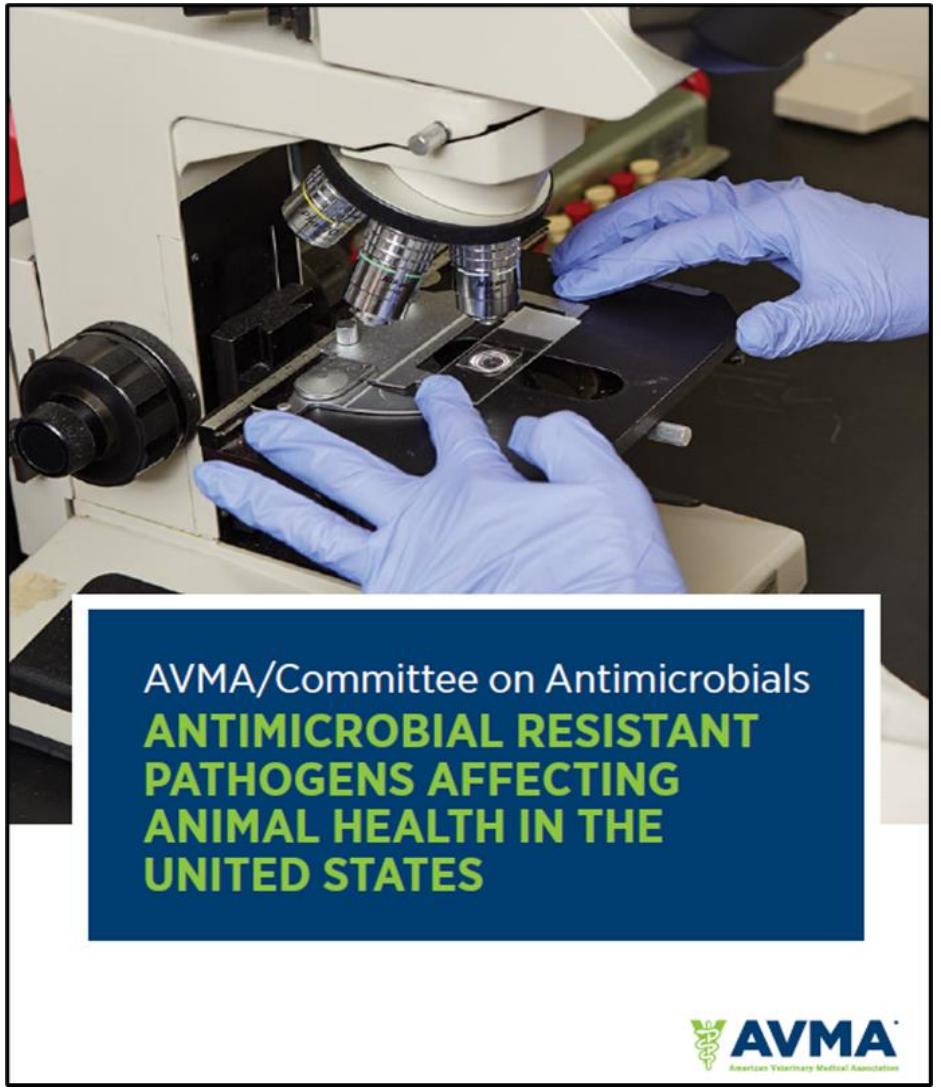
# AMR threats in animal health


**2020**



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# AMR threats in animal health

- Stewardship and core principles
- Host species summaries
- Bacterial species fact sheets
- Technical appendix for each bacterial species
- Stand alone infographics and pathogen cards




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# Another product from CDC translated into vet med

**DOES MY CAT NEED ANTIBIOTICS?**

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Antibiotics are powerful tools in the life-and-death fight against disease, and they must be used appropriately and responsibly to protect their effectiveness in both human and veterinary medicine. That means using antimicrobials, such as antibiotics, only when they are needed to treat an animal's medical condition. Antibiotics are only needed for treating certain infections caused by bacteria—viral illnesses cannot be treated with antibiotics.

The responsibility of preserving antimicrobial effectiveness falls to all of us—animal owners **and** veterinarians. This chart links common illnesses and symptoms with their causes to help you understand why antibiotics may or may not be part of your cat's treatment plan.

| Common condition | Is your pet feverish or listless/tired? | Common cause | | | Are systemic antibiotics needed? |
|---|---|---|---|---|---|
| | | Bacteria | Virus | Parasites | |
| Bacteria in the urine, no symptoms | No | ● | | | No |
| Idiopathic bladder inflammation | No | | | | No |
| Bladder infection, acute | No | ● | | | Yes |
| Bladder infection, ongoing | No | ● | | | Yes |
| Kidney Infection | Yes | ● | | | Yes |
| Sneezing/runny nose (upper airway disease) for fewer than 10 days | No | ● | ● | | No |
| Sneezing/runny nose (upper airway disease) for fewer than 10 days | Yes | ● | ● | | Yes |
| Sneezing/runny nose (upper airway disease) for more than 10 days | | ● | ● | ● | Maybe* |
| Bronchitis | | ● | ● | ● | Maybe* |
| Pneumonia (lower airway disease) | No | ● | | | Yes |
| Pneumonia (lower airway disease) | Yes | ● | | | Yes |
| Diarrhea for fewer than 10 days | No | ● | ● | ● | No |
| Diarrhea for more 10 days | No | ● | ● | ● | Maybe* |

**Your veterinarian will use their clinical judgement to decide whether antibiotics are need in these cases.*


***References***

- *ISCAID, UTI, 2019. https://doi.org/10.1016/j.tvjl.2019.02.008*
- *ISCAID, Resp, 2017. https://onlinelibrary.wiley.com/doi/pdf/10.1111/jvim.14627*
- *ISCAID, Pyoderma, 2014. https://doi.org/10.1111/vde.12118*
- *CLSI. Understanding Susceptibility Test Data as a Component of Antimicrobial Stewardship in Veterinary Settings. 1st ed. CLSI report VET09. Wayne, PA: Clinical and Laboratory Standards Institute; 2019*


Periodontal disease, dental cleaning or dental extraction (without osteomyelitis), and elective spay/neuter surgery are other common conditions or procedures for which systemic antibiotics are not needed.

**avma.org/AntibioticUse**

- One for dogs, another for cats
- Front side to use in the exam room for clients
- Backside as a resource for attending veterinarian
  - C/S before prescribing?
  - Considerations for initial therapy including proposed duration
  - Clinical guidance resources



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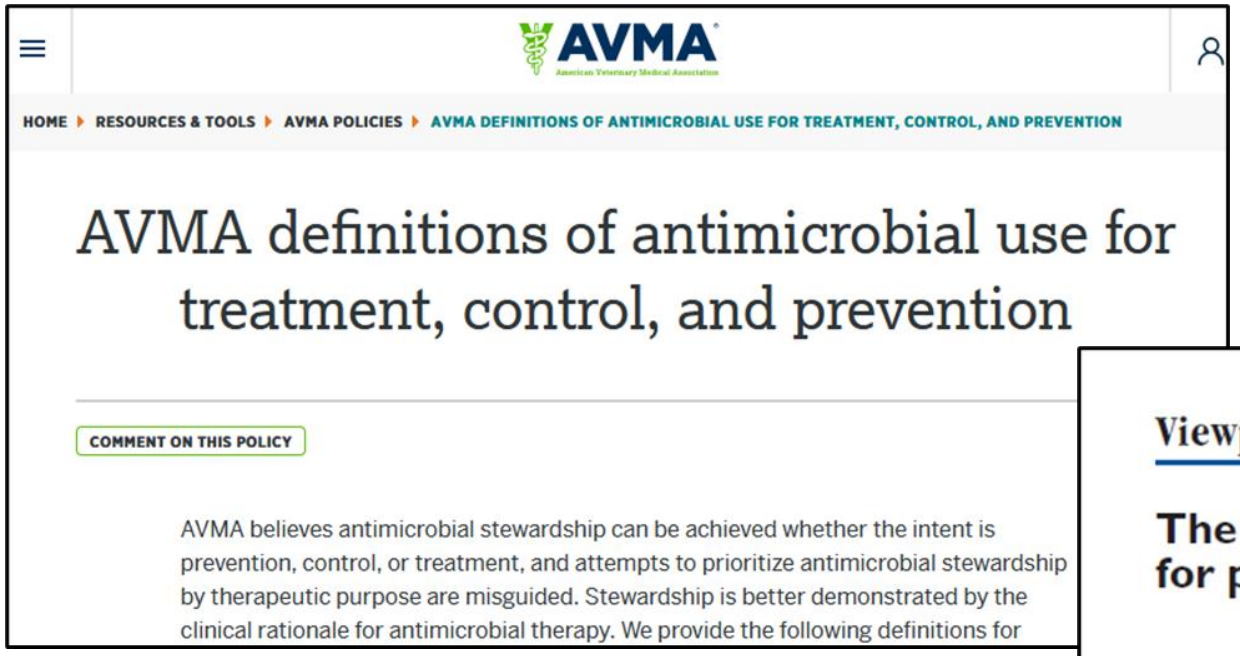
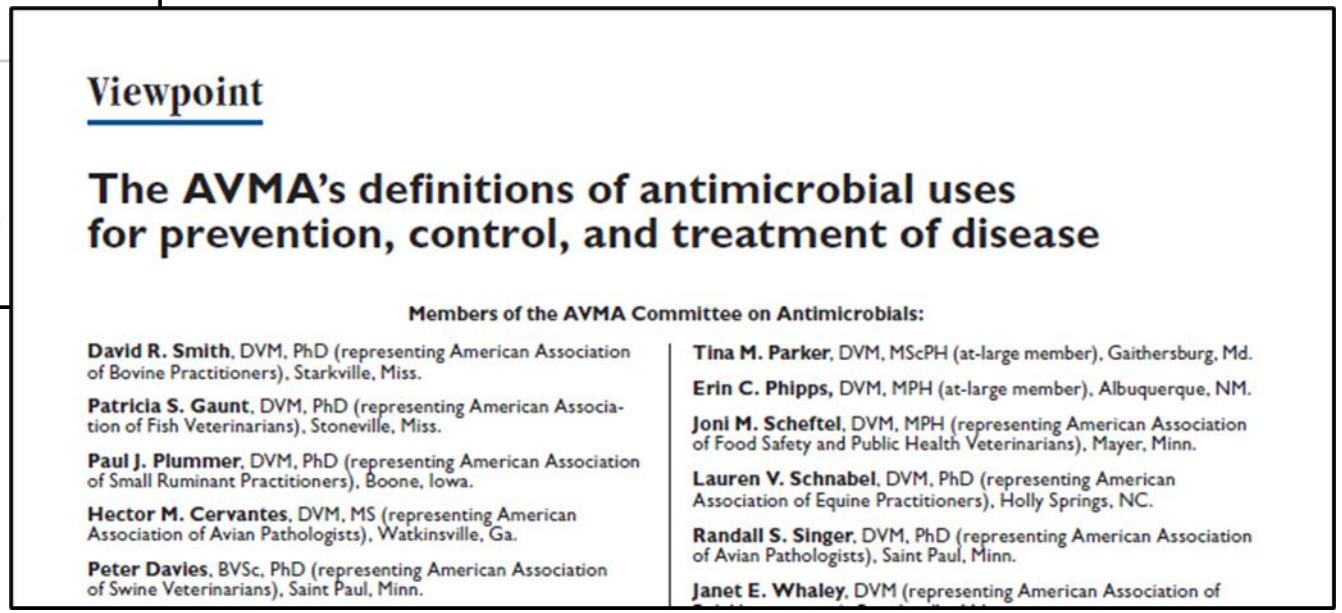
# Policy and white paper on prevention, treatment and control




https://www.avma.org/resources-tools/avma-policies/avma-definitions-antimicrobial-use-treatment-control-and-prevention




https://pubmed.ncbi.nlm.nih.gov/30888282/



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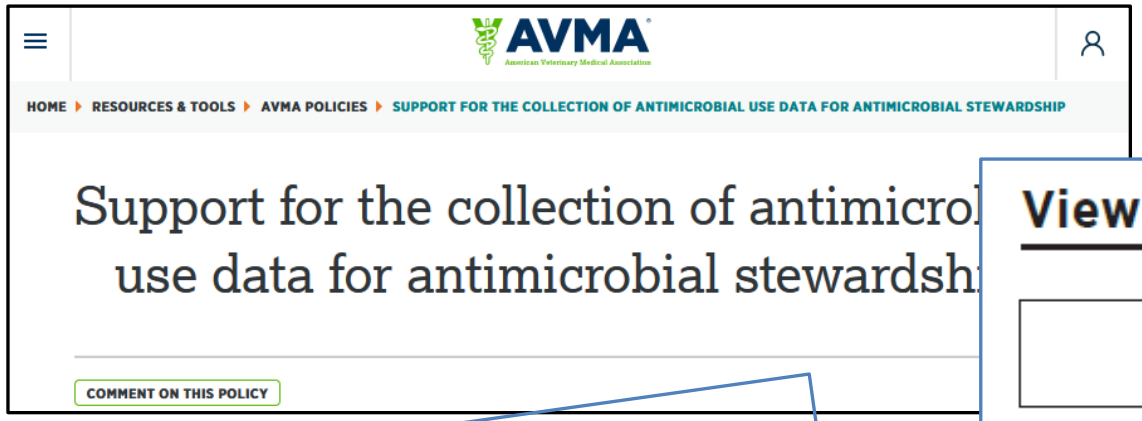
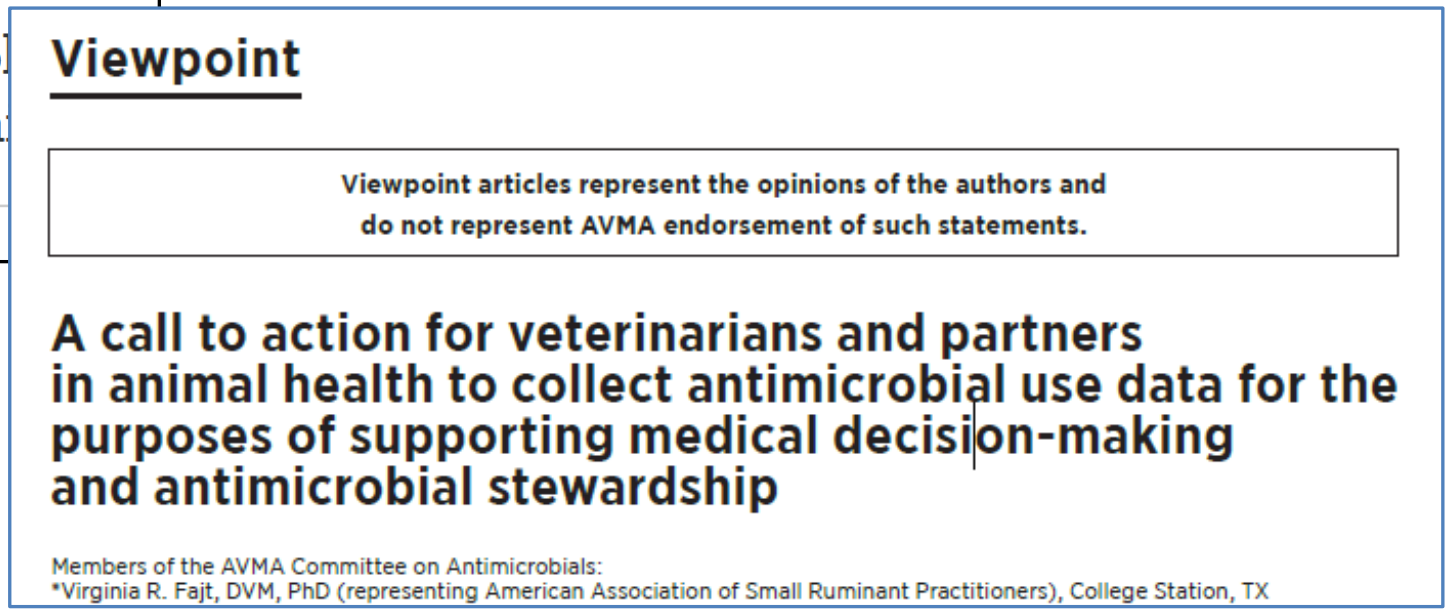
# Policy and white paper on collecting antimicrobial use data




Veterinarians should promote and adhere to the principles of antimicrobial stewardship, such as evaluating antimicrobial use practices (AVMA Core Principle #4) and assessing outcomes of antimicrobial use (Core Principle #3). These actions require the collection and evaluation of antimicrobial use data and treatment outcomes in animals.




https://doi.org/10.2460/javma.21.09.0431

https://www.avma.org/resources-tools/avma-policies/support-collection-antimicrobial-use-data-antimicrobial-stewardship



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# Thank you!

Acknowledgements:

- Members of the COA



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