

# ANTIMICROBIAL STEWARDSHIP

## definition and core principles



### 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

- o Engage all practice members and relevant stakeholders in the stewardship effort.
- o Develop stewardship plans that incorporate dedication to and accountability for disease prevention and that also optimize the prescribing, administration, and oversight of antimicrobial drugs.
- o Identify high-priority conditions that are commonly treated with antimicrobial drugs on which to focus stewardship efforts.
- o Demonstrate commitment to systematically assessing the outcomes of antimicrobial drug therapy.
- o Identify one or more individuals to lead the stewardship plan and provide accountability.

#### 2. Advocate for a system of care to prevent common diseases

- o Identify barriers to improving disease prevention.
- o 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.
- o Consider alternatives to antimicrobial drugs.

#### 3. Select and use antimicrobial drugs judiciously

- o Identify barriers to appropriate antimicrobial prescribing and usage.
- o Use an evidence-based approach for making a diagnosis and determining whether an antimicrobial drug is indicated.

- o Make an informed selection of an appropriate antimicrobial drug and regimen.
- o Refer to relevant veterinary medical guidelines for judicious therapeutic use.
- o Assess outcomes of antimicrobial use.

#### 4. Evaluate antimicrobial drug use practices

- o Encourage development of a program for the evaluation of antimicrobial drug prescribing at the veterinary-practice or aggregated levels.
- o Ensure that feedback is provided to veterinarians.
- o Support analyzing and sharing of antimicrobial drug use data while preserving veterinarian-client confidentiality.
- o 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

- o Make resources available and encourage the development of expertise in antimicrobial stewardship.
- o Keep up-to-date on strategies for disease prevention, use of antimicrobial alternatives, and selecting and using antimicrobial drugs.
- o Critically appraise and then implement appropriate existing clinical guidelines for antimicrobial use.
- o Provide client education on antimicrobial stewardship, including conditions when antimicrobial drugs are not needed.
- o 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.