

# ANTIMICROBIAL STEWARDSHIP & CORE PRINCIPLES IN POULTRY PRACTICE

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# STEWARDSHIP

## DEFINITION

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Refers to the actions taken individually & as a profession to preserve the effectiveness & availability of antimicrobial drugs through conscientious oversight & responsible medical decision-making while safeguarding poultry, public & environmental health.

# PECULIARITIES OF POULTRY PRACTICE

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- Poultry Industry is fully vertically integrated:
- Poultry company owns the chickens or turkeys.
- Poultry company owns the breeder flocks that supply the hatching eggs to the hatchery.
- Poultry company owns and manages the hatchery and delivers the chicks or poults to the contract growers.
- Growers provide facilities, fuel and care for the flocks as per poultry companies' programs.
- Poultry companies own the feed mills and have poultry nutritionists on staff.
- Poultry companies formulate, mix and deliver feeds to contract growers.

# PECULIARITIES OF POULTRY PRACTICE

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- Poultry companies also have poultry veterinarians on staff.
- Staff veterinarians are responsible for designing and managing all the health programs and diseases.
- Poultry companies also own the processing plants.
- At the end of the grow-out the poultry company picks up, transports & processes all the flocks raised by the contract growers.
- Poultry companies pay contract growers based in ranking on overall performance & contract agreement.

# ANTIMICROBIAL USE IN POULTRY



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## AAAP-AVMA Guidelines for Judicious Therapeutic Use of Antimicrobials in Poultry

The Principles of Judicious Therapeutic Use of Antimicrobials of the American Veterinary Medical Association (AVMA) are the framework for the Guidelines for Judicious Therapeutic Use of Antimicrobials in Poultry of the American Association of Avian Pathologists (AAAP). The purpose of this document is to provide information for field veterinarians on intervention strategies for common bacterial diseases of chickens and turkeys. This working document will be updated as needed by the American Association of Avian Pathologists Committee on Drugs and Therapeutics and the Committee on Food Safety.

Comment on  
this policy

(AVMA Members Only)

The overarching goals of veterinary poultry practice are to address the health and wellness of poultry while protecting food safety and public health. When the decision is reached to use antimicrobials, veterinarians should strive to optimize therapeutic efficacy and minimize resistance to antimicrobials to protect public and animal health. Use of antimicrobials can be minimized through carefully planned and executed preventative practices, including vaccination programs, biosecurity, automated ventilation controls, and conventional poultry husbandry and management programs. These programs are the pillars of sound production practices, and antimicrobial therapy provides an important tool aiding veterinarians in maintaining animal health and welfare.

### Disease Prevention and Diagnosis

To ensure proper use of antimicrobials in poultry, focus should be placed on disease prevention strategies. The poultry environment should be managed to reduce morbidity and mortality rates. The birds' environment should be optimized at all times. House environmental conditions should be altered frequently and as needed based on the appearance and activity of the birds. Noninfectious factors that predispose birds to disease include chilling, heat stress, inappropriate humidity, high ammonia concentrations, wet litter, high dust levels, very short down time between flocks and unpalatable or unsanitary feed or water. Ventilation must be managed to minimize the negative impact from ammonia, dust, excessive humidity, or combustion gases on primary defense mechanisms in the birds. Likewise, ventilation should be optimized for litter moisture control to reduce bacterial exposure and control ammonia concentrations. To assess the progression of disease within a flock, removal of morbid birds may be required. Diagnostic testing and troubleshooting procedures should be initiated to identify the primary microbial challenge and any predisposing conditions. Strict biosecurity should be maintained to prevent spread to other houses on the same farm, and immunization should be used when warranted.

Therapeutic Antimicrobials Available for Use in Poultry:

Judicious Use of Antimicrobials for  
**Poultry  
Veterinarians**



# VETERINARY POULTRY PRACTICE GOALS

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- Address the health and wellness of poultry while protecting food safety and public health.
- Strive to optimize therapeutic efficacy and minimize resistance to antimicrobials.
- Antimicrobial use can be minimized through carefully planned and executed preventive practices.
- Antimicrobial therapy:
  - Important tool aiding veterinarians in maintaining poultry health & welfare.



# JUDICIOUS USE

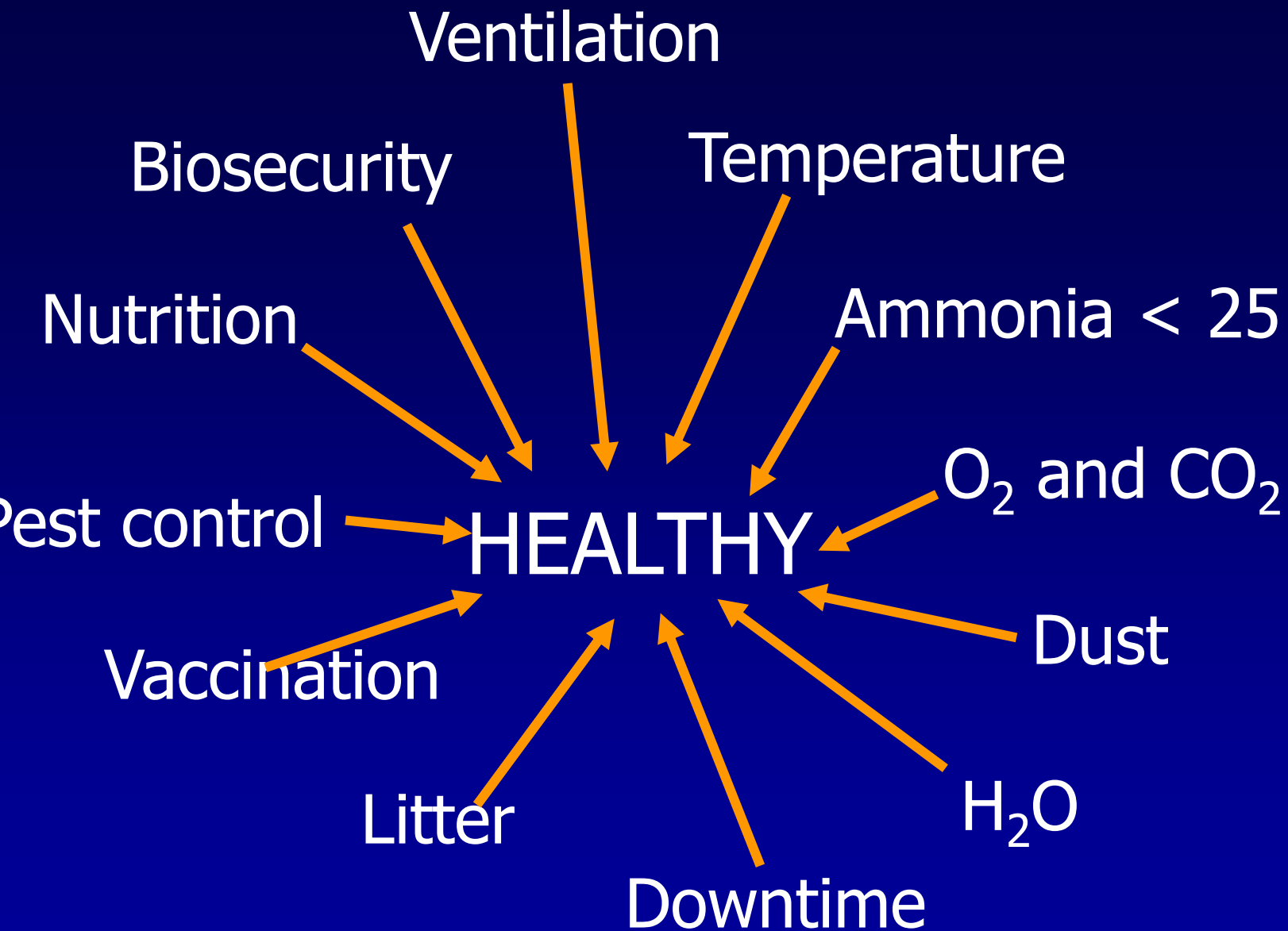
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- It is an integral part of good veterinary practice.
- It is an attitude to:
  - Maximize therapeutic efficacy.
  - Minimize selection of resistant microorganisms.
- Judicious use principles are a guide for optimal use of antimicrobials.
- Judicious use principles should not:
  - Replace professional judgement.
  - Compromise poultry health or welfare.
- Flocks should receive prompt & effective treatment by the attending veterinarian.

# GENERAL PRINCIPLES

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Preventive strategies (holistic approach).



# GENERAL PRINCIPLES

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Preventive strategies (holistic approach).

Consider other therapeutic options.

Must meet requirements of a VCPR.

Rx, VFD & ELDU must meet all requirements of VCPR.

ELDU only in accordance with AMDUCA.

Work closely with personnel administering.

Optimize therapy based on pharmacological studies.

Use narrow spectrum antimicrobials.

Prescribe antimicrobials of lesser human importance.

Use culture & sensitivity results.

# GENERAL PRINCIPLES

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1. Confine use to appropriate clinical indications.
2. Treat only for as long as needed.
3. Limit therapy to ill or at risk flocks.
4. Proper disposal of unused antimicrobials.
5. Keep accurate records of treatments & outcomes.

# CORE PRINCIPLES

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Commitment to stewardship.

Develop a system of care to prevent diseases.

Select & use antimicrobials judiciously.

Evaluate antimicrobial drug use practices.

Educate and build expertise.

# ANTIBIOTIC STEWARDSHIP

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requires leadership and commitment!

TAKE ACTION!

**HANK YOU FOR YOUR ATTENTION**

