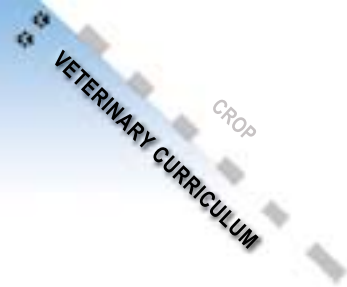


# Get Smart on the Farm



This interactive web-based educational program combines aspects of microbiology, pharmacology, infectious disease and public health to promote appropriate use of antimicrobial agents by veterinarians. Working in partnership with human health professionals, food animal producers, animal owners, and the general public, the appropriate use of antimicrobial agents by veterinarians can help to mitigate further development and spread of resistance in human, animal, and zoonotic pathogens and commensal bacteria.

## The veterinary curriculum consists of two parts:

- Background modules that provides an introduction to the global, ecological nature of the antimicrobial resistance problem.
  - The Investigation
  - Developed Countries & Antibiotic Resistance: The Danish Module
- Species-specific modules that contain interactive case scenarios aimed at providing practical, clinical applications for the appropriate use guidelines as set forth in the WHO Global Principles for the Containment of Antimicrobial Resistance in Animals Intended for Food.
  - Dairy
    - > Medicated Milk Replacer for Dairy Calves
    - > Neonatal Scours, Antibiotics and Dairy Calves
  - Contagious Mastitis Control in Dairy Cows
    - > Beef Cattle
  - Regression to the Mean and Antibiotic Efficacy
  - Bovine Respiratory Disease and Beef Cattle
  - Issues and Answers Regarding Antibiotics in Beef Production
    - > Pet Animals
  - Rodent Multiple-Drug Resistant Salmonella Outbreak

## Specific topics addressed in the program include:

- Mechanisms of bacterial resistance
- Diagnostic tools and tests
- Guidelines for empirical treatment
- Client education
- Alternatives to antibiotics
- Resistance in animals secondary to use of antimicrobial agents
- Public health risks of use of antimicrobial agents in food animals and in companion animals and the connection to antimicrobial resistant infections in people
- Guidelines for judicious and prudent use of antibiotics

## Partners:

- Michigan State University College of Veterinary Medicine
- University of Minnesota College of Veterinary Medicine
- [//cvm.msu.edu/cdc](http://cvm.msu.edu/cdc)