

# *Reducing Antimicrobial Resistance:* Shifting the Paradigm Through Antibiotic Stewardship Emphasizing Evidence-Based Practices & Interprofessional Collaboration

## *online modules*

Funding for this conference was made possible by R13HS026357 grant from the Agency for Healthcare Research and Quality (AHRQ). The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government

**Provided by:**

**University of Kentucky College of Nursing, Kentucky Department of Public Healthcare-associated/Antibiotic Resistance (HAI/AR) Prevention Program, and Atom Alliance**





### Overview:

The rapid emergence and proliferation of multidrug resistant micro-organisms (MDROs) threaten society's ability to effectively treat common infections caused by bacteria, parasites, viruses, and fungi in patients throughout the world. Multidrug-resistant organisms have the potential to be transmitted from one person to another resulting in costly infections that are difficult to treat. In the United States, at least 2 million people each year acquire serious infections with bacteria that are resistant to at least one or more of the antibiotics designed to treat those infections. In addition, new resistance mechanisms among microorganisms are emerging and spreading rapidly throughout the globe.

Antibiotic use is recognized as the primary selective pressure driving antimicrobial resistance (AR) as resistance is a natural process in the evolution of bacteria and microorganisms. However, in the United States, the Centers for Disease Control and Prevention (CDC) estimates that up to 50% of all antibiotic use in humans and much of the antibiotics used in animals are unnecessary and inappropriate. This has resulted in an increase in AR that jeopardizes the health of patients throughout the world. Therefore, improving antibiotic use through judicious practice is viewed as one of the most important methods in reducing antibiotic resistance and preserving the ability of antibiotics to fight infection and protect patients

**Learning Outcome:** Participants will be able to provide information for improvement of antibiotic prescribing in their healthcare settings.

**Objectives:** The attendees of this program will be able to:

- Describe information on best practices and recommended guidelines surrounding antibiotic prescribing;
- Provide information and guidelines for implementation of Antimicrobial Stewardship programs within particular healthcare settings;
- Plan successful methods for interprofessional collaboration of prescribing providers, organizational leadership, pharmacists, and non-prescribing nursing staff.

**Target Audience:** All healthcare practitioners responsible for prescribing antibiotics as well as non-prescribing registered nurses, pharmacists, infection preventionists, and quality staff.

The content is solely the responsibility of the authors and does not necessarily represent the official views of the Agency of Healthcare Research and Quality.

Continuing Education Credit is provided by the colleges of medicine and nursing at no cost to the grant.

### **Acknowledgements**

University of Kentucky College of Nursing

In collaboration with Kentucky Department of  
Public Health HAI Prevention Program and Atom Alliance

# Speakers



**Katherine E. Fleming-Dutra, MD**

Deputy Director, Office of Antibiotic Stewardship, Division of Healthcare Quality Promotion, Centers for Disease Control & Prevention



**Shaina Doyen, PharmD**

Clinical Pharmacy Specialist, Infectious Diseases, Baptist Health Louisville



**Rita Olans, DNP, CPNP, APRN-BC**

Assistant Professor in the School of Nursing at the MGH Institute of Health Professions



**Kevin B. Spicer, MD, PhD, MPH**

Antibiotic Resistance Coordinator, HAI/AR Program, Kentucky Department for Public Health



**Ginger Baker, MBA, LBBP, MS, MT (AAB), ACHE**

System Director of Operational Excellence  
Appalachian Regional



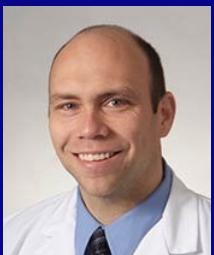
**Ardis Hoven, MD**

Internal Medicine and Infectious Disease Specialist Board of Trustees for American Medical Association



**Donna Burgess, RPh**

Clinical Infectious Diseases Pharmacy Specialist, University of Kentucky



**Derek Forster, MD**

Assistant Professor of Medicine, Infectious Disease, University of Kentucky



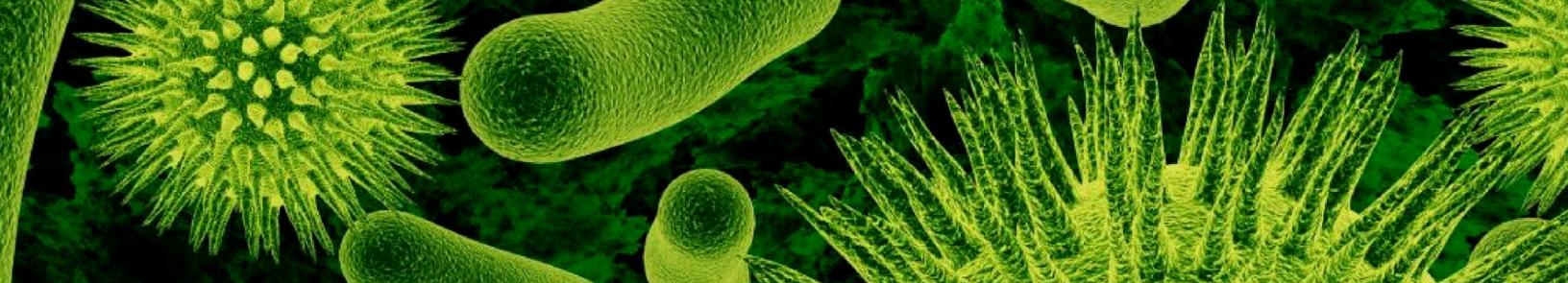
**College of Nursing**

## Faculty Disclosure

No speaker, planners or content reviewers have any relevant financial relationships to disclose.

The material presented in this course represents information obtained from the scientific literature as well as the clinical experiences of the speakers. In some cases, the presentations might include discussion of investigational agents and/or off-label indications for various agents used in clinical practice. Speakers will inform the audience when they are discussing investigational and/or off-label uses.

Content review confirmed that the content was developed in a fair, balanced manner free from commercial bias. Disclosure of a relationship is not intended to suggest or condone commercial bias in any presentation, but it is made to provide participants with information that might be of potential importance to their evaluation of a presentation.



## Module Title

### **Antibiotic Stewardship (AS) in Kentucky: Current State and Evaluation of Successful AS Programs -**

<https://www.cecentral.com/activity/dev/16693>

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 1.8 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 2.2 KBN contact hours.

Provider #: 3-0008-01-18-1062. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

### **Antibiotic Stewardship: Regulations, Mandates, and Use of National Healthcare Safety Network (NHSN) -**

<https://www.cecentral.com/activity/dev/16721>

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 1.5 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 1.8 KBN contact hours.

Provider #: 3-0008-01-18-1061. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

### **Evidence-Based Practice Guidelines and Strategies for Implementing Antibiotic Stewardship Programs in Healthcare Settings -**

<https://www.cecentral.com/activity/dev/16722>

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 1.8 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 2.2 KBN contact hours.

Provider #: 3-0008-01-18-1064. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

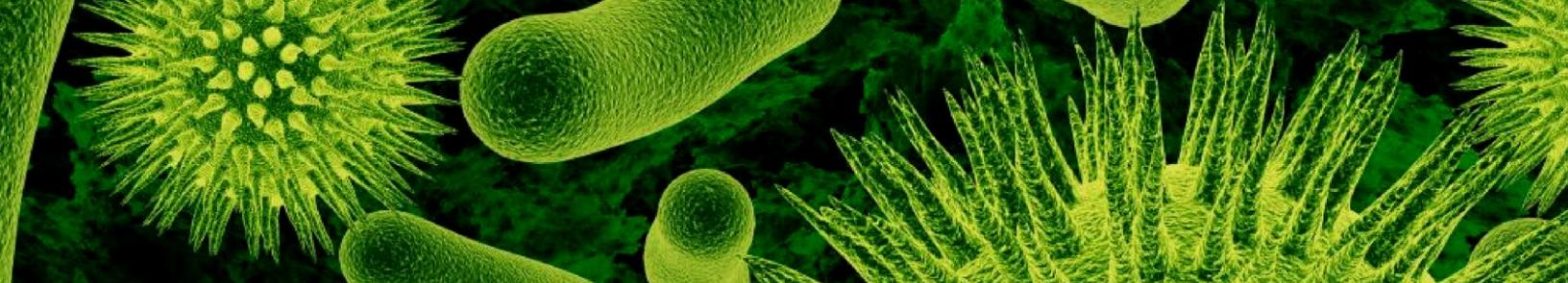
### **Interprofessional Collaboration – Why is it Important? - <https://www.cecentral.com/activity/dev/16723>**

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 0.6 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 0.6 KBN contact hours.

Provider #: 3-0008-01-18-1065. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

**Bugonomics: Cost of Unnecessary Antibiotic Use - <https://www.ceccentral.com/activity/dev/16724>**

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 0.8 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 1.0 KBN contact hours. Provider #: 3-0008-01-18-1066. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

**Diagnostic Stewardship: A Key to Decreasing Unnecessary Antimicrobial Use -**

<https://www.ceccentral.com/activity/dev/16725>

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 1.0 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 1.2 KBN contact hours. Provider #: 3-0008-01-18-1067. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

**The Overlooked and Often Underutilized Role of Nurses in Building Success Antibiotic Stewardship Programs -**

<https://www.ceccentral.com/activity/dev/16726>

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 1.9 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 2.3 KBN contact hours. Provider #: 3-0008-01-18-1063. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.

**Leadership Challenges in Antibiotic Stewardship in Rural and Appalachia Populations -**

<https://www.ceccentral.com/activity/dev/16727>

The University of Kentucky, College of Nursing is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC).

This educational activity is offered for a maximum of 0.80 ANCC contact hours.

The Kentucky Board of Nursing (KBN) approves The University of Kentucky, College of Nursing (UKCON) as a provider as well. ANCC and KBN approval of a continuing nursing education provider does not constitute endorsement of program content nor commercial sponsors. The University of Kentucky does not approve commercial products. This educational activity is offered for a maximum of 1.0 KBN contact hours. Provider #: 3-0008-01-18-1068. In order to receive credit, participants must complete the CNE activity and complete the evaluation form. Certificates may be printed once the evaluation is completed.