

## OUTLINE

### Antimicrobials

Drug classes  
Pharmacokinetic Properties  
Concentration-dependent killing  
Time-dependent killing  
Post-antibiotic effect  
Common interactions with other drugs

### Antibacterial Allergies – Sulfa and Penicillin

Define true allergy  
Sulfonamide antibiotics vs non-antibiotics  
Penicillin – Cephalosporin cross-sensitivity

### Bacteria

Differentiation  
Normal flora  
Common pathogens

### Antibacterial Resistance–Contributing Factors

Trends  
Mechanisms of resistance  
Contributing factors

### Methicillin-Resistant Staphylococcus Aureus - Community versus Hospital Acquired

Differentiating between CA- and HA-MRSA  
Current clinical practice guidelines  
Pharmacologic management

### Enterobacteriaceae Resistance

Extended Spectrum Beta-Lactamase (ESBL)  
What are ESBLs  
Pharmacologic management  
Carbapenem-Resistant Enterobacteriaceae (CRE)  
What are CREs  
Pharmacologic management

### Urinary Tract Infections

Bacterial Etiology, Signs and Symptoms and Diagnosis  
Cystitis and pyelonephritis  
Complicated and uncomplicated  
UTIs in pregnancy  
Treatment (IDSA Guideline Treatment Algorithm)  
Acute  
Recurrent and relapse

### Clostridium Difficile Infection

Risk factors  
Pharmacology management  
Fecal Transplantation  
Probiotics literature review

### Community–Acquired Pneumonia

Bacterial etiology  
Diagnosis  
Typical vs. atypical  
Treatment (IDSA/ATS Guidelines) and monitoring  
Outpatient vs. inpatient  
Empiric treatment

### Healthcare–Associated Pneumonia

Bacterial etiology  
Treatment (IDSA/ATS Guidelines)

### Upper Respiratory Tract Infections

Sinusitis and pharyngitis  
Etiology (Viral vs. Bacterial)  
Treatment

### Skin and Soft Tissue Infections

Cellulitis  
Bacterial etiology  
Strep. vs. Staph. vs. MRSA  
Signs & symptoms  
Treatment (IDSA Guidelines)

### Influenza

Clinical features  
Diagnosis  
Pharmacology management

### Immunizations (Adult)

Types of Vaccines  
General recommendations  
Contraindications & precautions

### Live Webcast Schedule

(Times listed in Pacific)

**8:00** Program begins

**11:50-1:00** Lunch Break

**4:00** Program ends

There will be two 15-min breaks (mid-morning & mid-afternoon).  
Actual lunch and break start times are at the discretion of the speaker.  
A more detailed schedule is available upon request.

## Objectives

1. Analyze the major classes of antibiotics and their pharmacokinetic characteristics.
2. Apply current evidenced-based approaches to select appropriate treatment regimens for common infections encountered in clinical practice.
3. Prescribe antimicrobials based on empiric dosing recommendations.
4. Plan goals of therapy and parameters for monitoring therapeutic response to antimicrobials.
5. Recommend specific antimicrobial therapeutic drug monitoring to maximize efficacy and minimize toxicities (e.g., vancomycin and aminoglycosides).
6. Develop preventative strategies to limit antimicrobial resistance.
7. Design patient and caregiver education on the proper use of antimicrobials.

**Target Audience:** Nurses • Advanced Practice Nurses • Clinical Nurse Specialists • Pharmacists  
Nurse Practitioners • Physician Assistants

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# PHARMACOLOGY

## OF INFECTIOUS DISEASES & IMMUNIZATIONS

## for Advanced Practice Clinicians

Featuring **Eric Wombwell, PharmD, BCIDP**

- Antimicrobials
- Preventive strategies to limit antimicrobial resistance
- C. Difficile
- UTIs
- Respiratory Infections
- Skin Infections
- Treatment (IDSA) guidelines
- Immunizations (Adult)
- COVID-19: The latest on pharmacologic therapies and vaccines

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# PHARMACOLOGY OF INFECTIOUS DISEASES & IMMUNIZATIONS

Attend this seminar and learn proper prescribing, patient education and monitoring procedures for a variety of drug regimens used to treat common acute and chronic infectious diseases. Choosing an antibacterial agent can be challenging, given the plethora of drugs available on the market and the emerging trend in bacterial resistance.

You will learn the pharmacology of different classes of antimicrobials used to treat infectious disease states encountered in clinical practice. Discover the spectrums of activity, pharmacokinetic characteristics and parameters for monitoring therapeutic outcomes. Emphasis is placed on the new antimicrobials and advances in evidence-based treatment guidelines. You will leave this seminar better prepared to design appropriate and cost-effective drug regimens for improved therapeutic outcomes.

Leave this seminar better prepared to design appropriate and cost-effective drug regimens for improved therapeutic outcomes.

## SPEAKER

**Eric Wombwell, PharmD, BCIDP**, is a board certified infectious diseases pharmacist and Clinical Associate Professor for the Department of Pharmacy Practice and Administration at the University of Missouri - Kansas City, School of Pharmacy. Wombwell is responsible for developing clinical and educational initiatives designed to optimize student learning. He is active in lecturing, research and hospital pharmacy practice.

Dr. Wombwell completed his PharmD degree at the University of Missouri Kansas City, followed by an ASHP accredited pharmacy practice residency at the Kansas City VA Medical Center. Upon residency completion, Wombwell accepted a full-time non-tenured clinical faculty position at the University of Missouri – Kansas City, School of Pharmacy. His responsibilities include teaching Doctor of Pharmacy students in a variety of courses with special emphasis in the area of infectious diseases. As part of this position, Wombwell serves as a Clinical Pharmacy Specialist, working as part of the multidisciplinary team, providing care to acutely ill patients at Centerpoint Medical Center in Independence, Missouri. In addition, Wombwell functions in an adjunct faculty capacity with the University of Missouri – Kansas City, School of Dentistry, where he is responsible for teaching infectious diseases curricular content to dental students in the Pharmacology and Therapeutics course series.

Dr. Wombwell has more than 20 peer-reviewed publications on pharmacy and medication-related topics, and has delivered more than 50 invited presentations locally and nationally for continuing education to various health-professional audiences. He has been named Teacher-of-the-year in various capacities 10-times, including “Missouri Pharmacist Association - UMKC Faculty Member of the Year” in 2016, and received the “UMKC Provost’s Award for Excellence in Teaching” in 2014.

### Speaker Disclosures:

Financial: Eric Wombwell is a Clinical Assistant Professor, Department of Pharmacy Practice at the University of Missouri – Kansas City. He receives a speaking honorarium from PESI, Inc.

Non-financial: Eric Wombwell has no relevant non-financial relationships to disclose.



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2021. ACPE Universal Program Number: 0289-0000-20-002-L01-P. Full attendance is required. No partial contact hours will be awarded for partial attendance. Please note: Pharmacists are required to complete a program evaluation/post-test within two weeks of attending the live event if they would like their participation submitted to ACPE. A valid NABP e-Profile ID and Birthdate (mm/dd) will be required for reporting. Don't have your e-Profile ID yet? Visit the National Association of Boards of Pharmacy (NABP) website and complete your e-profile at [www.nabp.net](http://www.nabp.net) in order to obtain your NABP e-Profile ID.

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