

## OUTLINE

### Bacterial Characteristics

Cell envelope characteristics  
Gram stain procedures  
Gram positive & Gram negative organisms

### Antibiotic Prescribing Background

Interpreting culture & sensitivity  
Inhibitory concentration vs. bactericidal concentration  
Empiric vs. targeted therapy  
Antibiogram

### Medication Allergy vs. Adverse Effect

Defining true allergic response  
PCN-Carbapenem cross reactivity

### Antibiotic Resistance

MRSA  
VRE  
Extended Spectrum Beta-Lactamases  
Klebsiella Pneumoniae  
Carbapenemase

### Drug Resistant Threats in the U.S.

C. Diff  
CRE  
Neisseria Gonorrhea  
Tuberculosis

### Current CDC Guidelines

Antibiotic stewardship  
Start and stop recommendations

### NEW Antibiotics for 2016 & 2017

Signs & symptoms  
Causative organisms  
Pharmacologic management  
Non-pharmacologic management for:  
Pneumonia  
Bronchitis

Sinusitis  
Pharyngitis  
Acute Cystitis  
Catheter-related UTIs  
Pelvic Inflammatory Disease  
Brain Abscess  
Meningitis  
Cellulitis  
Diabetic Foot Ulcers  
Osteomyelitis  
Influenza  
Human & Animal bites

### Common Effects of Antibiotics on Other Medications

Cardiac medications  
Anti-seizure medications  
Anticoagulants  
Antifungal agents

### Bioterrorism: Diagnosis & Treatment


Bacillus anthracis  
Clostridium botulinum  
Yersinia pestis  
Francisella tularensis

### CDC Immunization Schedule for Adults

Types of vaccines  
Indications & Contraindications

Questions?  
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# PHARMACOLOGY

## OF INFECTIOUS DISEASES AND IMMUNIZATIONS

### for Advanced Practice Clinicians

**ELLICOTT CITY, MD**  
Monday, September 18, 2017

**SILVER SPRING, MD**  
Tuesday, September 19, 2017

**FAIRFAX, VA**  
Wednesday, September 20, 2017

# PHARMACOLOGY

## OF INFECTIOUS DISEASES AND IMMUNIZATIONS

### for Advanced Practice Clinicians

Featuring **Dr. Paul Langlois, APN, PhD, CCRN, CCNS, CNRN**

- Antimicrobials
- Preventive strategies to limit antimicrobial resistance
- C. Difficile
- UTIs
- Respiratory Infections
- Skin Infections
- Treatment (IDSA) guidelines
- Immunizations (Adult)

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# PHARMACOLOGY OF INFECTIOUS DISEASES AND 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.

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## SPEAKER

**Dr. Paul Langlois, APN, PhD, CCRN, CCNS, CNRN,** is a critical care clinical specialist in the Surgical, Medical, Neuro, CCU and Trauma ICUs of Cook County Hospital, Chicago. Drawing on over 30 years of experience assessing and managing patients with life-threatening diseases, Dr. Langlois provides advanced-level training to nurses, physician assistants, nurse practitioners and physicians.

Dr. Langlois is committed to providing the highest quality of care to patients through advanced education. His presentations are evidence-based, timely and provide participants with case studies to facilitate critical thinking. As a bedside clinical nurse specialist, he has developed several critical care and infection control institution-wide protocols for the multidisciplinary assessment and management of the cardiac and septic patient. Paul's' cardiac protocols include: weaning from mechanical ventilation, pulmonary artery catheter and hemodynamic monitoring, vasoactive medications, ventricular assist devices, renal replacement therapy, and neurologic alterations after trauma.

His presentations are enthusiastically delivered and offer practical tips that help make the most challenging concepts easy to understand. Linking knowledge to practice is the goal of every education program.

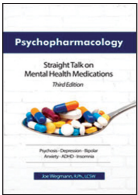
Speaker Disclosures:

Financial: Paul Langlois has an employment relationship with Cook County Hospital. He receives a speaking honorarium from PESI, Inc.  
Non-financial: Paul Langlois has no relevant non-financial relationship to disclose.

## 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. Distinguish between different types of bacterial etiology and mechanisms of resistance.
4. Compare empiric dosing of antimicrobials.
5. Recognize important interactions between antimicrobials and other drugs.
6. Plan goals of therapy and parameters for monitoring therapeutic response to antimicrobials.
7. Recommend specific antimicrobial therapeutic drug monitoring to maximize efficacy and minimize toxicities (e.g., vancomycin and aminoglycosides).
8. Develop preventative strategies to limit antimicrobial resistance.
9. Design patient and caregiver education on the proper use of antimicrobials.
10. Differentiate local and global ecological factors affecting promotion of viral infection emergence.
11. Plan for vaccines that are currently recommended for routine administration.

## SAVE BY INCLUDING THESE PRODUCTS WITH SEMINAR REGISTRATION!



**Psychopharmacology: Straight Talk on Mental Health Medications, Third Edition**  
By Joseph F. Wegmann, Pharm.D., LCSW

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**Geriatric Pharmacology: The Principles of Practice & Clinical Recommendations, Second Edition**  
By Steven Atkinson, PA-C, MS

This book is designed to explain the aging process and help the healthcare professional reduce the chance of a drug-disease interaction or adverse drug event. Special attention given to high-risk medications, minimizing polypharmacy and following essential guidelines in geriatric medicine.

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If your profession is not listed, please contact your licensing board to determine your continuing education requirements and check for reciprocal approval. For other credit inquiries not specified below, or questions on home study credit availability, please contact [cepsi@pesi.com](mailto:cepsi@pesi.com) or 800-844-8260 before the event.

Materials that are included in this course may include interventions and modalities that are beyond the authorized practice of mental health professionals. As a licensed professional, you are responsible for reviewing the scope of practice, including activities that are defined in law as beyond the boundaries of practice in accordance with and in compliance with your professions standards.

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**PHARMACISTS:** PESI, Inc. is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. Successful completion of this Knowledge-based activity qualifies for 6.3 contact hours. ACPE Universal Program Number: 0289-0000-17-004-L01-P. Full attendance is required. No partial contact hours will be awarded for partial attendance. You are required to complete a program evaluation/post-test and bring your e-Profile ID to the seminar to receive CPE credit. 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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## Live Seminar Schedule

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**8:00** Program begins  
**11:50-1:00** Lunch (*on your own*)  
**4:00** Program ends

*10 – 15 minute mid-morning and mid-afternoon breaks*

For locations and maps, go to [www.pesihealthcare.com](http://www.pesihealthcare.com), find your event, and click on the seminar title.

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