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

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PHARMACOLOGY

OF INFECTIOUS DISEASES & IMMUNIZATIONS

for Advanced Practice Clinicians

ELLICOTT CITY, MD

Tuesday, May 15, 2018

SILVER SPRING, MD

Wednesday, May 16, 2018

FAIRFAX, VA

Thursday, May 17, 2018



PHARMACOLOGY

OF INFECTIOUS DISEASES & IMMUNIZATIONS

for Advanced Practice Clinicians

Featuring Eric Wombwell, PharmD

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



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HARMACOLOGY 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, is a 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, predominately 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 7-times, "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.

OBJECTIVES

- 1. Analyze the major classes of antibiotics and their 5. Recommend specific antimicrobial therapeutic 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.
- 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.

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Successful completion of this Knowledge-based activity qualifies for 6.3 contact hours. ACPE Universal Program Number: 0289-0000-17-040post-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 in order to obtain your NABP e-Profile ID.

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