

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)
Treatment Controversy

Upper Respiratory Tract Infections

Sinusitis and pharyngitis
Etiology (Viral vs. Bacterial)
Treatment
Bronchitis and Pertussis
Etiology (Viral vs. Bacterial)
Treatment

Skin and Soft Tissue Infections

Cellulitis
Diabetic foot infections
Bacterial etiology
Signs & symptoms
Treatment (IDSA Guidelines)
Osteomyelitis
Acute vs. Chronic
Oral considerations

Strategies to Improve Patient Adherence

IMS Model (Information-Motivation-Strategy)
Major predictors of poor adherence to medication

Antibacterial Resistance–Prevention Strategies

Mechanisms for drug resistance
12 steps to prevent antimicrobial resistance (CDC)
Antibiotic stewardship

Emerging and Reemerging Viral Infections

Animals as sources
Drivers and ecological factors
Modes of transmission
Pharmacology management

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

LANCASTER, PA
Monday, March 19, 2018

KING OF PRUSSIA, PA
Tuesday, March 20, 2018

CHERRY HILL, NJ
Wednesday, March 21, 2018

PHARMACOLOGY

OF INFECTIOUS DISEASES & IMMUNIZATIONS

for Advanced Practice Clinicians

Featuring **Dr. Jason Cota, PharmD, MS**

- 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 & 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
Dr. Jason Cota, PharmD, MS, is an associate professor and the vice chair of the Pharmacy Practice Department at the University of the Incarnate Word Feik School of Pharmacy. He also has over 10 years of experience practicing as an infectious diseases clinical pharmacist at the San Antonio Military Medical Center, where he is a credentialed provider with prescriptive authority.

Dr. Cota received his Doctor of Pharmacy and a Master of Science in Advanced Pharmacy Practice with an emphasis in infectious diseases research from The University of Texas at Austin. In conjunction with his Master of Science degree program, he completed a two-year Specialty Practice Residency in Pharmacotherapy at The University of Texas Health Science Center at San Antonio with an emphasis in both infectious diseases and nephrology.

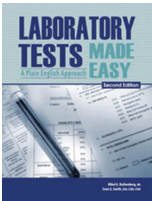
Dr. Cota is a member of the Society of Infectious Diseases Pharmacists and has given several presentations at national and international meetings. His research has focused on antimicrobial and antifungal drug dosing in patient populations that are subject to altered pharmacokinetics, including critically-ill burn patients and those receiving renal replacement therapy. He has published a number of articles and has co-authored several book chapters in the areas of infectious diseases and nephrology.

Speaker Disclosures:
Financial: Jason Cota is vice chair and associate professor at the University of the Incarnate Word Feik School of Pharmacy. He receives a speaking honorarium from Merck. Dr. Cota receives a speaking honorarium for PESI, Inc.
Nonfinancial: Jason Cota is a member of the Society of Infectious Diseases Pharmacists.

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.

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Laboratory Tests Made Easy: A Plain English Approach, Second Edition
By Mikel A. Rothenberg, MD
& Sean G. Smith, BSN, RN, NREMT-P, FP-C, C-NPT, CCRN-CMC, CFRN, CEN, CPEN

This best-selling reference book provides both the “need to know” information, as well as the more in-depth “nice to know” details relevant to your patient’s lab results. In this Second Edition you will find plain English summaries, pertinent case studies, and easy to read diagrams and tables. This fully revised and updated book puts the information right at the fingertips of any medical professional at any experience level. (2014)



Geriatric Pharmacology: The Principles of Practice & Clinical Recommendations, 2nd Edition
By Steven Atkinson, PA-C, MS

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