# 9<sup>th</sup> Annual Middle Tennessee Antimicrobial Stewardship Symposium

**Educate - Collaborate - Innovate** 



College of Pharmacy & Health Sciences

Friday, May 16, 2025

Thomas F. Frist, Jr., College of Medicine

Belmont University

8:00am-3:30pm

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# Welcome!

On behalf of the 2025 Planning Committee, let me be the first to welcome you to the 9th Annual Middle Tennessee Antimicrobial Stewardship Symposium! The goal of this symposium is to provide a forum for key stakeholders and practitioners from around the region to learn more about antimicrobial stewardship and discuss ways we can work together as a community to improve appropriate antimicrobial practices and mitigate risks associated with inappropriate use. Through today's lectures, panel discussion, round table discussions, and poster presentations, we hope that you will learn something valuable and connect with someone who has experienced and overcome similar challenges. We are especially excited to hear about some of the grassroots solutions you have incorporated at your sites during the roundtable discussions and to see how collaboration from today's event will translate to actionable solutions at your individual institutions in the future. Thank you for attending, and please reach out if you have suggestions or questions (pharmacyce@belmont.edu).

Athena Hobbs, PharmD, BCIDP Symposium Chairperson

### Planning Committee Members

Alaina DeKerlegand, PharmD, BCIDP

Christopher Evans, PharmD

Josh Stripling, MD

Missy Travis, RN, CIC, FAPIC

Caroline Eskind, MD

Jarret Worden, PharmD, BCIDP

Laura Hyde, MA, PMP

Quynh Dao, PharmD, BCPS, BCGP

Pratish Patel, PharmD, FIDSA, BCIDP, AAHIVP

# **Symposium Learning Objectives**

At the end of this symposium, learners should be able to:

- Discuss how to appropriately utilize current literature to maximize stewardship impact in your facility
- Identify resources available to assist in the development, maintenance, and enhancement of antimicrobial stewardship programs
- Discuss optimization of antimicrobial therapy for certain infections based on evidence-based medicine and local susceptibility information

# **Map of Conference Center** Frist College of Medicine 2<sup>nd</sup> Floor **Conference Room** All Lectures. Posters Panel Elevators to 4th Fl. Men's Restroom Women's Restroom Roundtables (Room) Infection Prevention Primer (4101) Antibiotic Lock Therapy (4306) LAIs for HIV (4102) Durations of Therapy (4430) Clinical Breakpoints (4201) ID Emergencies (4501) Top ID Papers of 2024 (4202) Transitions of Care (4502) Frist 4<sup>th</sup> Floor 4502 RO STR

# **Thank You Exhibitors & Supporters!**

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This project is funded under a Grant Contract with the State of Tennessee.

# WiFi & Access to Materials

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Network: Belmont

**Password**: No password is needed.

### **Access to Course Materials**

Use your smartphone camera or a QR reader to scan this QR code to access the <u>Symposium webpage</u>, including lecture slides and roundtable handouts.



# **Program Agenda**

Requirements for successful completion of the CE activities & subsequent awarding of credit can be found on p. 14.

7:15-8:00am

**Registration & Exhibitor Engagement** 

8:00-8:15

Welcome

8:15-9:00



### Innovative Approaches to Enhancing Surgical Infection Prophylaxis

(0.75 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-006-L05-P) Lisa Dumkow, PharmD, BCIDP, FIDP; Clinical Pharmacist, Antimicrobial Stewardship Program Director, PGY-2 Infectious Diseases Pharmacy Residency, Trinity Health Grand Rapids, MI Dr. Dumkow has no relevant financial relationships to disclose.

### **Learning Objectives:**

- Recognize first-line agent(s) for surgical infection prophylaxis for most surgical types
- Identify the risks associated with the administration of allergyalternative surgical infection prophylaxis agents
- Outline interventions to strengthen local surgical infection prophylaxis policies aimed at increasing the use of first-line agents for surgical infection prophylaxis

9:00-9:45



# When Staph's Got Your Back: Treatment of MRSA Spinal Infections

(0.75 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-018-L01-P) George Sakoulas, MD; Chief of Infectious Diseases, Sharp Rees-Stealy Medical Group; San Diego, CA; Adjunct Professor, Division of Host-Microbe Systems and Therapeutics; Center for Immunity, Infection and Inflammation, University of California San Diego School of Medicine

Dr. Sakoulas is a consultant for Abbvie, Paratek, and Octapharma; has received a research grant from Octapharma, and is a speaker for Abbvie, Paratek, and Nestle Science. All relevant financial relationships have been mitigated.

### **Learning Objectives:**

- Outline the diagnostic workup in patients with MRSA spine infections
- Describe therapeutic shortcomings in current standards of care in treating invasive MRSA infections, including spine infections
- 3. Describe optimal therapeutic strategies in managing patients with MRSA spine infections

9:45-10:05

Break (sponsored by Invivyd) & Exhibitor Engagement

### 10:05-10:50



# Do I DAIR stop antibiotic suppression!? The role of antibiotic suppression for bone and joint infections

(0.75 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-012-L01-P) **Daisuke Furukawa, MD MS**; Clinical Assistant Professor, Division of Infectious Diseases and Geographic Medicine, Stanford University *Dr. Furukawa has no relevant financial relationships to disclose.* 

### **Learning Objectives:**

- Describe the treatment duration and recommended route of antibiotics for bone and joint infections in order to clearly distinguish between treatment and suppression
- Identify indications for antibiotic suppression for bone and joint infections
- Recall evidence supporting the various anecdotal approaches regarding duration and type of antibiotics used for antibiotic suppression

### 10:50-11:50



# KEYNOTE PRESENTATION

# Ready Steward One: Gamification of ID and Stewardship Education

(1.0 Contact Hour; UAN: 0863-9999-25-017-L04-P) **Katherine Lusardi, PharmD, BCIDP**; Clinical Pharmacy Specialist - Infectious Diseases, Baptist Health System, Little Rock, AR Dr. Lusardi has no relevant financial relationships to disclose.

### **Learning Objectives:**

- 1. Identify barriers and benefits to implementing gamification as a medical education strategy
- Recognize opportunities for gamification within a department or program
- 3. Propose an ID/ASP focused game that can be used with trainees at their work site

# 11:50am-12:30pm Lunch (sponsored by InflaRx Pharmaceuticals, Inc.), Headshots, Exhibitor Engagement

# **12:30-1:00** Poster Session (No CE Credit), Exhibitor Engagement, Headshots Poster titles & backgrounds listed on pp. 12-13.

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### 1:00-2:00 Mythbuster Panel

(1.0 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-007-L01-P)

### **Learning Objectives**

- 1. Recognize patients and culture results that may benefit from high dose or extended infusion Beta-lactam dosing
- 2. Identify patient and medication characteristics which may result in the need for alterations in dosing in patients with obesity

Panel Learning Objectives (continued)

- Explain the susceptible-dose dependent interpretive category for CLSI and FDA breakpoints
- 4. Explain how the daptomycin susceptibility breakpoints help define the treatment of enterococcal bacteremia and endocarditis with monotherapy or combination therapy

### Moderator

**Jarett Worden, PharmD, BCIDP**; Assistant Professor of Pharmacy Practice, Belmont University College of Pharmacy & Health Sciences, Nashville, TN

### Panel Discussants

- Lisa Dumkow, PharmD, BCIDP, FIDP; Clinical Pharmacist, Antimicrobial Stewardship Program Director, PGY-2 Infectious Diseases Pharmacy Residency, Trinity Health; Grand Rapids, MI
- Romney Humphries, Ph.D., D(ABMM), M(ASCP); Professor of Pathology, Microbiology, and Immunology; Medical Director of the Microbiology Laboratory; Vanderbilt University Medical Center, Nashville, TN
- 3. **Katherine Lusardi, PharmD, BCIDP**; Clinical Pharmacy Specialist Infectious Diseases, Baptist Health System, Little Rock, AR
- George Sakoulas, MD; Chief of Infectious Diseases, Sharp Rees-Stealy Medical Group; San Diego, CA; Adjunct Professor, Division of Host-Microbe Systems and Therapeutics; Center for Immunity, Infection and Inflammation, University of California San Diego School of Medicine

Dr. Humphries is a consultant for bioMerieux, a member of the scientific advisory board for NGD, and has received research funding from Selux, Qiagen, Pattern, PhAST, and Gradientech. All relevant financial relationships have been mitigated.

Dr. Lusardi is a consultant for Accelerate Diagnostics, Inc. All relevant financial relationships have been mitigated.

Dr. Sakoulas is a consultant for Abbvie, Paratek, and Octapharma; has received a research grant from Octapharma, and is a speaker for Abbvie, Paratek, and Nestle Science. All relevant financial relationships have been mitigated.

2:00-2:15	Raffle Prize Drawing & Go to Roundtable Rooms (4 <sup>th</sup> Floor)
2:15-2:45	Roundtable Session 1 (Sessions listed on pp. 9-11)
2:45-2:50	Rotate to Next Roundtable Session
2:50-3:20	Roundtable Session 2 (Sessions listed on pp. 9-11)
3:20-3:30	Return to Main Conference Room (2 <sup>nd</sup> Floor)
3:30	Closing Remarks & Final Raffle Prize Drawing

# **Roundtable Sessions**

Each learner may attend **two (2)** of the following roundtable topics.

### Session 1 (2:15-2:45pm) & Session 2 (2:50-3:30pm)

### 1. Challenges in Transitions of Care: a focus on OPAT and CoPAT

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-009-L05-P)

Christo L. Cimino, PharmD, BCIDP; Clinical Pharmacist Specialist, Infectious

Diseases/OPAT; PGY2 Infectious Diseases Pharmacy Residency Program Director,

Vanderbilt University Medical Center Department of Pharmaceutical Services

Dr. Cimino has no relevant financial relationships to disclose.

### **Learning Objectives**

- Identify risks and pitfalls associated with transitions of care for patients prescribed OPAT or CoPAT upon discharge
- Implement best practices for effective transitions of care for patients prescribed OPAT or CoPAT upon discharge
- Describe effective strategies for engaging key interdisciplinary stakeholders to optimize coordinated  $\,$
- management for patients prescribed OPAT or CoPAT upon discharge

### Considerations on Implementing and Utilizing Long-Acting Injectables for the Prevention and Treatment of HIV in the Outpatient Setting

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-016-L02-P)

Ryan Vathy, PharmD; PGY2 Infectious Diseases Pharmacy Resident, Vanderbilt
University Medical Center, Nashville, TN. Advisor: Pratish C. Patel, PahrmD,
FIDSA, BCIDP, AAHIVP; Pharmacy Program Director, Vanderbilt University Medical
Center, Nashville, TN

Dr. Vathy & Dr. Patel have no relevant financial relationships to disclose.

### **Learning Objectives**

- Describe LAIs that can be used for the treatment and prevention of HIV and barriers to using these medications.
- Explain the administration and counseling points of LAIs and how to implement use of these drugs in practice

### 3. Rounding out 2024: Top papers in ID and ASP

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-019-L01-P)

Alaina DeKerlegand, PharmD, BCIDP, Pharmacy Coordinator - Infectious Diseases and Antimicrobial Stewardship; PGY2 Internal Medicine Pharmacy Residency Program Coordinator; Methodist University Hospital, Mempis, TN; Assistant Professor, UTHSC, College of Pharmacy

### Session 1 (2:15-2:45pm) & Session 2 (2:50-3:30pm)

Dr. DeKerlegand has no relevant financial relationships to disclose.

### **Learning Objectives**

- List clinically relevant literature from 2024 related to infectious diseases, antimicrobial stewardship, and infection prevention
- Recognize disease states with data supporting shorter antibiotic durations of therapy
- Recall disease states with opportunities for early IV to PO antibiotic switches

### Infection Prevention Primer: Navigating Regulations, Metrics, and Multidisciplinary Integration for Infection Prevention

(0.5 Contact Hour; UAN: 0863-9999-25-014-L05-P)

Missy Travis, MSN, RN, CIC; IP&C Consulting, LLC; Nashville, TN

Ms. Travis is a consultant for Applied Silver, Georgia Pacific, and Laborie. All relevant financial relationships have been mitigated.

### **Learning Objectives**

- Analyze the relationship between state and federal infection prevention regulations, evidence-based guidelines, and facility-specific requirements to identify potential inconsistencies in infection prevention practices
- Evaluate definitions, reporting requirements, and quality metrics such as the Standardized Infection Ratio (SIR) to clarify their role in improving infection prevention outcomes
- Develop strategies to integrate infection prevention principles into the daily routines of healthcare professionals, including pharmacists, nurses, and physicians, to enhance patient safety and promote consistent practices

### 5. Operationalizing Clinical Breakpoint Updates

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-011-L01-P)

Romney Humphries, Ph.D., D(ABMM), M(ASCP); Professor of Pathology,

Microbiology, and Immunology; Medical Director of the Microbiology Laboratory;

Vanderbilt University Medical Center, Nashville, TN

Dr. Humphries is a consultant for bioMerieux, a member of the scientific advisory board for NGD, and has received research funding from Selux, Qiagen, Pattern, PhAST, and Gradientech. All relevant financial relationships have been mitigated.

### **Learning Objectives**

- Identify strategies to prioritize updating breakpoints in your facility with an inter-professional team
- Recognize current CLSI and FDA recommendations for breakpoints

### Session 1 (2:15-2:45pm) & Session 2 (2:50-3:30pm)

### 6. Unlocking the Potential of Antibiotic Lock Therapy

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-008-L05-P)
Helen Ding, PharmD, BCIDP; Clinical Pharmacist Specialist, Infectious Diseases/
Antimicrobial Stewardship,

University of Tennessee Medical Center; Knoxville, TN

Dr. Ding has no relevant financial relationships to disclose.

### **Learning Objectives**

- Explain the principles and practical applications of antibiotic lock therapy
- Summarize the process of biofilm formation and how biofilms contribute to the persistence of catheter-related bloodstream infections
- Describe methods for implementing antibiotic lock therapy into clinical practice and overcoming implementation challenges

### 7. Managing ID Emergencies

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-015-L01-P)

Michael Zou, MD; PGY5 Clinical Fellow, Division of Infectious Diseases, Vanderbilt
University Medical Center Department of Medicine. Advisor: Lauren Nicholas
Salazar Herrera, MD DTM&H; Medical Director, Antimicrobial Stewardship,
Vanderbilt Beford Hospital; Assistant Professor of Medicine, Vanderbilt University
Medical Center, Department of Medicine, Division of Infectious Diseases

Dr. Zou & Dr. Herrera have no relevant financial relationships to disclose.

### **Learning Objectives**

- Explain an appropriate duration for antibiotics for febrile neutropenia without a identified source
- Summarize the arguments for usage of linezolid as an anti-toxin adjunct instead of clindamycin
- Outline how skin cultures can be used to optimize antibiotic usage for SJS with superimposed infections

### 8. The Road to Shorter Antibiotic Durations of Therapy: Navigating Barriers to Implementation

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-9999-25-010-L01-P)

Mary Joyce B. Wingler, PharmD, BCIDP; Antimicrobial Stewardship Pharmacist,
University of Mississippi Medical Center; Jackson, MS

Dr. Wingler has no relevant financial relationships to disclose.

### **Learning Objectives**

- Summarize guideline recommendations for durations of antibiotic therapy for common pediatric infections
- Compare recent primary literature evaluating shorter durations of antibiotic therapy to guidelines and current practice
- Develop a plan for implementation of shorter durations of antibiotic therapy for common pediatric infections

# **Poster Presentations**

12:30-1:00pm No CE Credit Offered

 Analysis of Antimicrobial Use Quality Reports from the NHSN AU Option in Tennessee 2021–2023

<u>Authors</u>: Dipen M Patel, MBBS, MPH, MPM; Glodi Mutamba, MD, MPH; Christopher Evans, PharmD

Institution: Tennessee Department of Health, Nashville, TN

Background: The National Healthcare Safety Network (NHSN) Antibiotic Use (AU) Option aids hospital antimicrobial stewardship programs (ASPs) by facilitating tracking and reporting of AU data. In 2021, Tennessee Department of Health launched an AU data quality project to improve reporting accuracy. Quarterly reports are generated, assessing data across 15 quality flags, such as reporting antimicrobial days when days present (DP) are zero or drug-route mismatches. Flags also highlight significant outliers, including DP or AU rates outside the median ±2 interquartile ranges compared to the prior year. Reporting facilities receive actionable solutions for flagged concerns.

 State-wide Antibiogram using National Healthcare Safety Network Antimicrobial Resistance Option 2017–2023

<u>Authors</u>: Dipen M Patel, MBBS, MPH, MPM; Christopher Evans, PharmD; Melphine Harriott, PhD, D(ABMM), MLS(ASCP)SMCM, CIC1

Institution: Tennessee Department of Health, Nashville, TN

<u>Background</u>: Antimicrobial resistance (AR) is a significant global health threat, leading to higher healthcare costs, longer hospital stays, and increased mortality rates. Antibiograms are essential for guiding empiric treatment decisions and supporting antimicrobial stewardship programs (ASPs). However, many facilities lack facility-specific data, and facility-level antibiograms may not fully represent broader AR trends. To address this, we developed Tennessee's first statewide antibiogram using data from the National Healthcare Safety Network (NHSN) AR Option.

3. Treatment Strategies and Outcomes for Carbapenem-Resistant Acinetobacter baumannii and Stenotrophomonas maltophilia Infections Before and After Institutional Treatment Guidance Implementation

<u>Authors</u>: Ryan Vathy, PharmD; Christo Cimino, PharmD, BCIDP; Ben Ereshefsky, PharmD, BCIDP; Romney Humphries, PhD, D(ABMM), M(ASCP)

Institution: Vanderbilt University Medical Center, Nashville, TN

<u>Background</u>: The Infectious Diseases Society of America (IDSA) guidance document on the treatment of multi-drug resistant (MDR) infections was first published in December 2021. This document addressed the treatment of carbapenem-resistant Acinetobacter baumannii (CRAB) and Stenotrophomonas maltophlia amongst other organisms. At Vanderbilt University Medical Center, an institution specific treatment algorithm was published on June 1, 2022, consistent with IDSA's recommendations.

This treatment algorithm included recommended empiric regimens, antimicrobial dosing, and when to use combination vs. monotherapy. The objective of this study was to evaluate if this treatment guidance document impacted treatment decisions and clinical outcomes for infections caused by CRAB or S. maltophilia at our institution.

# 4. Evaluating UTI Management Using a Proposed Continuum of Diagnosis in an Academic Medical Center

<u>Authors</u>: Parker Kaleo, PharmD; Dennis Marjoncu, PharmD, BCOP; Carolyn Cummings, PharmD, BCPS, BCTXP; Kerry Cleveland, MD; Alaina DeKerlegand, PharmD, BCIDP

Institution: Methodist University Hospital, Memphis, TN

<u>Background</u>: There remains controversy when managing urinary tract infections (UTIs) for patients without urinary symptoms but have nonspecific clinical symptoms such as hypotension, nausea, vomiting, incontinence or retention, among others. In a position statement by Advani et al, they proposed a new diagnostic category termed bacteriuria of unclear significance (BUS) to acknowledge this gap and shine light on treatment decisions in these patients. We will evaluate this classification in our academic medical center by retrospectively diagnosing patients treated with a UTI as having asymptomatic bacteriuria (ASB), BUS, or a UTI.

### Clinical Comparison of Ceftriaxone Combination Treatment with Azithromycin versus Doxycycline for Hospitalized Non-Critically III Patients with Community Acquired Pneumonia

<u>Authors</u>: Alexandria Yoby, PharmD; Krista Bachert, PharmD, BCIDP; Haley Watson, PharmD, BCEMP; Jonathan Mitchell, BCPS, BCGP, BCCCP, BCEMP

Institution: Baptist Memorial Hospital-DeSoto, Southaven, MS

<u>Background</u>: Community-acquired pneumonia (CAP) is a major cause of hospitalization and death in the United States. The 2019 Infectious Diseases Society of America (IDSA) Clinical Practice Guidelines for the Diagnosis and Treatment of CAP recommend either beta-lactam and macrolide combination therapy or fluoroquinolone monotherapy for inpatient treatment of non-severe CAP. While these recommendations are supported by high-quality evidence, IDSA recognizes a need for additional research on the inpatient use of beta-lactam and doxycycline combination therapy for non-severe CAP. Additionally, existing studies suggest that tetracyclines, such as doxycycline, may reduce the risk of Clostridioides difficile infection (CDI) compared to other antimicrobials. This study aims to compare mortality and clinical outcomes of ceftriaxone-based combination therapy with either azithromycin or doxycycline for the treatment of CAP in non-critically ill hospitalized patients.

# **Claiming CE Credit**

All instructions for claiming CE credit will be emailed the week of May 19<sup>th</sup>.

### **PHARMACISTS**



Belmont University College of Pharmacy & Health Sciences is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

These knowledge-based activities for pharmacists will provide up to 5.25 contact hours (0.525 CEUs) of live continuing education credit to pharmacists who register to attend the Symposium, attend 100% of a session per time slot, actively participate in the engagement activities of each session attended, and complete the online post-test & online activity evaluation for each activity attended.

Upon successful completion of the activity evaluation for the session(s) that pharmacists attended in full, CE credits will be submitted to NABP CPE Monitor. If successful completion is not achieved, the CE credit will not be accepted by CPE Monitor. It is the responsibility of the pharmacist to notify Belmont if the CE credit hasn't posted to their NABP CPE Monitor account within one (1) week of completing the evaluation. Belmont University will email pharmacists up to three times if reports indicate unsuccessful completion of requirements or credit submission. Pharmacists with questions regarding their NABP e-Profile or CPE Monitor should contact NABP Customer Engagement at help@nabp.pharmacy or visit https://nabp.pharmacy/help/.

### **NURSES & PHYSICIANS**



**Nurses:** Each course in this activity is accredited for *AMA PRA Category 1 Credit*<sup>TM</sup>. We recommend that you check with your individual licensing board to confirm acceptance.

**Physicians:** This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Tennessee Medical Association and Belmont University College of Pharmacy & Health Sciences. The Tennessee Medical Association is accredited by the ACCME to provide continuing medical education for physicians.

The Tennessee Medical Association designates this live activity for a maximum of 5.25 AMA PRA Category 1 Credit(s)<sup>M</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

# **Notes**

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# Join Us Next Year!

The 10<sup>th</sup> Annual Middle Tennessee
Antimicrobial Stewardship Symposium
is tentatively scheduled for May 15, 2026.
Watch your email for more details.

# **We Welcome Your Feedback**

In addition to a program evaluation that will be emailed to you, please send any feedback regarding the Symposium to <a href="mailto:pharmacyce@belmont.edu">pharmacyce@belmont.edu</a>.