8th Annual

Middle Tennessee

Antimicrobial Stewardship Symposium

Educate - Collaborate - Innovate

Presented by

BELMONT UNIVERSITY

COLLEGE *of* PHARMACY

Friday, May 17, 2024

Ayers Conference Center

Belmont University

8:00am-4:00pm

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Welcome!

On behalf of the 2023-2024 planning committee, let me be the first to welcome you to the 8th 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

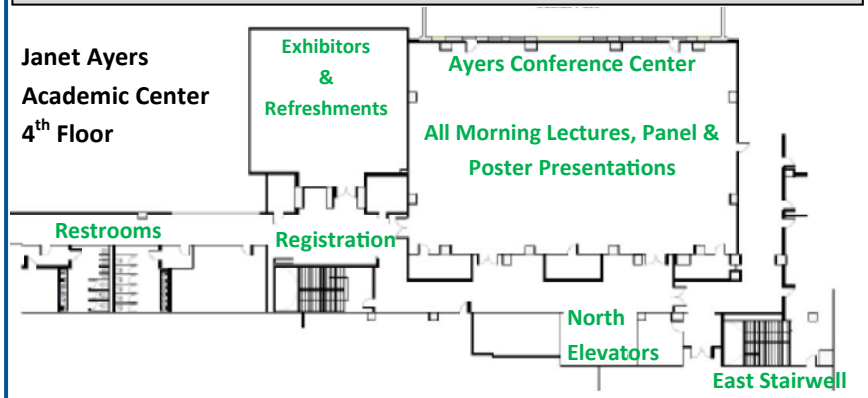
Committee Members:
Wiyanna Bruck, PharmD, BCPS, BCIDP, BCPPS
Kate Derveloy, MSN-HSM, BA, RN
Caroline Eskind, MD
Christopher Evans, PharmD, BCPS
Laura Hyde, MA, PMP
Jarret Worden, PharmD, BCIDP

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 and maintenance 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



Roundtables (2:45-3:50)		Room Assignment
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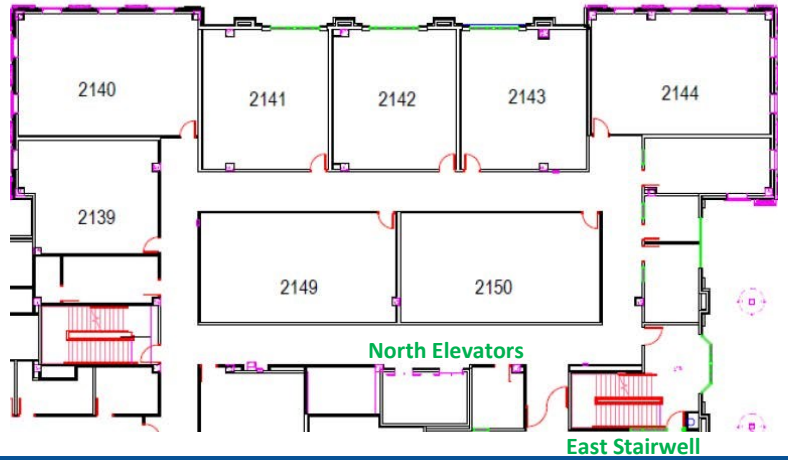
Ayers 2nd Floor



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

WiFi & Access to Materials

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 Symposium webpage, including lecture slides and roundtable handouts.

Program Agenda

7:15-8:00am **Check-in, Exhibitor Engagement, Breakfast**

8:00-8:15 **Welcome**

8:15-9:00 **A Fun-guide to Antifungals**

(0.75 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-015-L01-P)
Erin K. McCreary, PharmD, BCPS, BCIDP; Director of Infectious Diseases Improvement and Clinical Research Innovation, UPMC Clinical Assistant Professor of Medicine, University of Pittsburgh

Dr. McCreary served on advisory boards for: Abbvie, Merck, Basilea, Shionogi, Melinta, Ferring, Cidara, Entasis, LabSimply, and GSK, and received speaker honorarium from GSK, Shionogi, and Pfizer. All relevant financial relationships have been mitigated.

Learning Objectives
1. Identify optimal methods for incorporating azole TDM into clinical practice
2. Describe therapeutic goals for safety and efficacy for azole antifungal drug monitoring
3. List the antifungal agents in the drug development pipeline

9:00-9:45 **Emerging multi-drug resistant Gram-negative rods & determining antimicrobial resistance mechanisms based on susceptibility profile**

(0.75 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-019-L01-P)
Ryan Shields, PharmD, MS; Associate Professor of Medicine, Division of Infectious Diseases; Co-Director, Antibiotic Management Program, University of Pittsburgh Cystic Fibrosis Research Center

Dr. Shields is a consultant for Cidara, Shionogi, Menarini, Melinta, Merck, Entasis, Utility, Venatorx and has received investigator-initiated research funding from Merck, Melinta, Shionogi, Venatorx, Roche. All relevant financial relationships have been mitigated.

Learning Objectives
1. Identify the most common multidrug-resistant Gram-negative pathogens in the US
2. Select appropriate treatment options based on underlying mechanism of resistance
3. Determine the most likely mechanism of resistance based on a phenotypic susceptibility prrofile

9:45-10:05 **Break** (Sponsored by T2 Biosystems) **& Exhibitor Engagement**

10:05-10:50 **Antimicrobial Stewardship in Immunocompromised Patients**

(0.75 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-016-L01-P)

Erica Stohs, MD, MPH; Assistant Professor, Division of Infectious Diseases; Associate Medical Director, Antimicrobial Stewardship Program, Department of Internal Medicine, University of Nebraska Medical Center; Omaha, NE

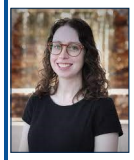
Dr. Stohs has received investigator-initiated research funding from Merck & bioMerieux. All relevant financial relationships have ended and have been mitigated.

Learning Objectives

1. Explain the need for antimicrobial stewardship in immunocompromised patients
2. Identify clinical scenarios when antimicrobial stewardship interventions can be implemented
3. Recognize the gaps in the literature and needs for future stewardship in immunocompromised populations

10:50-11:50 **Keynote Presentation**

Navigating the Future: Artificial Intelligence Applications in Antimicrobial Stewardship



(1.0 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-018-L04-P

Whitney Buckel, PharmD, BCIDP; System Antimicrobial Stewardship Pharmacist Manager, Associate Professor of Research, Intermountain Health, Pharmacy Services

Dr. Buckel has no relevant financial relationships to disclose.

Learning Objectives

1. Describe artificial intelligence (AI) and machine learning (ML)
2. Characterize applications of AI and ML in infectious diseases related to diagnosis, treatment, and antimicrobial resistance, including their potential benefits and risks
3. Determine potential applications where AI and ML could augment antimicrobial stewardship programs, including but not limited to: empiric antibiotic selection, audit and feedback, antimicrobial use assessment, and predicting or preventing antimicrobial toxicities.

11:50am-1:00pm **Lunch & Exhibitor Engagement**

1:00-1:30 **Poster Session (No CE Credit) & Exhibitor Engagement**

Poster titles & backgrounds listed on pp. 12-13.

1:30-2:30 **Panel Discussion**

Mythbusting Infectious Disease Myths

(1.0 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-008-L01-P)

Dr. McCreary served on advisory boards for: Abbvie, Merck, Basilea, Shionogi, Melinta, Ferring, Cidara, Entasis, LabSimply, and GSK, and received speaker honorarium from GSK, Shionogi, and Pfizer.

Dr. Shields is a consultant for Cidara, Shionogi, Menarini,

Program Agenda *(continued)*

Melinta, Merck, Entasis, Utility, Venatorx and has received investigator-initiated research funding from Merck, Melinta, Shionogi, Venatorx, Roche.

The moderator & all other discussants have no relevant financial relationship with ineligible companies to disclose.

All relevant financial relationships listed have been mitigated.

Learning Objectives:

1. Discuss diagnostic and treatment plans for diseases that often receive inappropriate antimicrobials
2. Describe the strength of evidence regarding antimicrobial use in controversial clinical scenarios
3. Explain how to optimize prescriber behavior despite the lack of robust evidence in these scenarios.

Moderator: Matthew Lokant, MD; Chief Fellow, Infectious Diseases, Vanderbilt University Medical Center; Nashville, TN

Discussants

Brittany Lehrer, MD; Fellow, Vanderbilt University Medical Center, Nashville, TN

Erin K. McCreary, PharmD, BCPS, BCIDP; Director of Infectious Diseases Improvement and Clinical Research
Innovation, UPMC Clinical Assistant Professor of Medicine, University of Pittsburgh

Ryan Shields, PharmD, MS; Assistant Professor of Medicine, Division of Infectious Diseases; Co-Director,
Antibiotic Management Program, University of PIttsburgh Cystic Fibrosis Research Center

Joshua Stripling, MD; Associate Professor, Director, Antimicrobial Stewardship, Division of Infectious Diseases; Heersink School of Medicine, The University of Alabama at Birmingham

2:30-2:45 **Break, Raffle Prize Drawing & Go to Roundtable Rooms**

2:45-3:15 **Roundtable Session 1** (Sessions listed on pp. 9-11)

3:15-3:20 Rotate to Next Roundtable Session

3:20-3:50 **Roundtable Session 2** (Sessions listed on pp. 9-11)

3:50-4:00 Return to Main Conference Room (4th Floor)

4:00 **Closing Remarks & Final Raffle Prize Drawing**

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

Roundtable Sessions

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

Session 1 (2:45-3:15) & Session 2 (3:20-3:50pm)

1. **Diversity, Equity, Inclusion in Antimicrobial Stewardship and Prescribing**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-013-L04-P)

Christopher Evans, PharmD, BCPS, Healthcare-Associated Infections and Antimicrobial Resistance Program, Tennessee Department of Health, Nashville,

Dr. Evans has no relevant financial relationships to disclose.

Learning Objectives

- Define diversity, equity, inclusion, and justice as they relate to healthcare
- Describe how antibiotic prescribing is affected by social determinants of health

2. **Beyond Antibiotics: Proactive Measures for MDRO Prevention**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-010-L05-P)

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

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

Learning Objectives

- Identify the Centers for Disease Control and Prevention (CDC) Guidelines for healthcare associated infections and multi drug resistant organisms
- Recognize the gaps between the guidelines and their current program

3. **MRSA Nasal PCR Testing: More than Pneumonia?**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-011-L01-P)

Alaina DeKerlegand, PharmD, BCID; Pharmacy Coordinator- Infectious Diseases and Antimicrobial Stewardship, Methodist University Hospital, Memphis, TN

Dr. DeKerlegand has no relevant financial relationships to disclose.

Learning Objectives

- Describe the efficacy of MRSA nasal testing for infections outside of the respiratory tract
- Identify opportunities for applying MRSA nasal testing results to de-escalation opportunities outside of the respiratory tract

Session 1 (2:45-3:15pm) & Session 2 (3:20-3:50pm)

4. **Challenges in C. difficile Treatment and Prophylaxis**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-012-L01-P)

Pratish C Patel, PharmD, FIDSA, BCIDP, AAHIVP; Program Director, Pharmacy, Vanderbilt University Medical Center, Nashville, TN

Dr. Patel has no relevant financial relationships to disclose.

Learning Objectives

- Identify when to use fecal microbiota transplant (FMT) therapy and compare between available formulations
- Determine which regimen, dose, and duration to use for secondary prophylaxis of C. difficile

5. **Safeguarding Seniors: Antimicrobial Stewardship in Long-Term Care**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-017-L05-P)

Quynh Dao, PharmD, BCPS, BCGP; Clinical Consultant Pharmacist, Ampharm Inc.; Memphis, TN

Dr. Dao has no relevant financial relationships to disclose.

Learning Objectives

- Identify the seven Core Elements of Antibiotic Stewardship for Nursing Homes
- Create an actionable intervention to improve antibiotic use within nursing home setting

6. **Reframing Pregnancy Drug Labeling: Antibiotic Use and Misuse During Pregnancy and Postpartum (Risks and Benefits)**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-009-L01-P)

Ashley Scism, DNP, APRN, FNP-BC; Assistant Professor of Nursing, Gordon E. Inman College of Health Sciences & Nursing, Belmont University; Nashville, TN

Dr. Scism has no relevant financial relationships to disclose.

Learning Objectives

- Describe how the Pregnancy and Lactation Labeling Rule (PLLR) alters and improves the information provided about medication use during pregnancy compared to the previous letter categories
- Facilitate patient-centered counseling using PLLR information

Session 1 (2:45-3:15pm) & Session 2 (3:20-3:50pm)

7. **Candida auris: Impact on Nursing in the Acute Care Setting**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-021-L05-P)

Kate Derveloy, MSN-HSM, BA, RN; Infection Preventionist III, Methodist LeBonheur Healthcare, Methodist University Hospital, Memphis TN

Ms. Derveloy has no relevant financial relationships to disclose.

Learning Objectives

- Recall information about C.auris that can be shared to educate patients and their families
- List 3 mitigation strategies to reduce cross-contamination of C.auris in the in-patient setting

8. **"Getting Better" - Top 10 Papers of 2023**

(0.5 Pharmacotherapeutic Contact Hour; UAN: 0863-0000-24-022-L01-P)

Joshua Stripling, MD; Associate Professor, Director, Antimicrobial Stewardship, Division of Infectious Diseases; Heersink School of Medicine, The University of Alabama at Birmingham

Dr. Stripling has no relevant financial relationships to disclose.

Learning Objectives

- Recall clinically relevant literature from 2023 relating to infection prevention and antimicrobial stewardship practices
- Recognize the optimal antibiotics for use in patients with reported beta-lactum allergies

Poster Presentations

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

1. Antimicrobial Use Rates by Patient Care Units using NHSN Antimicrobial Use Option in TN Reporting Facilities, 2015–2023

Authors: Dipen M Patel, MBBS, MPH, MPM; Glodi Mutamba, MD, MPH; Callyn Wren, PharmD, BCIDP; Christopher Evans, PharmD

Institution: Tennessee Department of Health, Nashville,

Background: Tracking antimicrobial use (AU) is a Core Element of Hospital Antimicrobial Stewardship Programs and important to help curb the public health threat of antimicrobial resistance. The National Healthcare Safety Network's (NHSN) AU Option serves as a way for facilities, healthcare systems, and health departments to track and report AU rates within their jurisdictions. Many analyses at the state and national levels do not assess unit-level AU rates. This study investigates AU rates among patient care units in Tennessee reporting facilities from 2015 to 2023 and the most frequently used antimicrobial agents based on AU rates within select unit types.

2. Evaluation of Pharmacist-Driven Penicillin Allergy Reconciliation

Authors: Caitlyn Jerkins, PharmD; Tyler Baumeister, PharmD, BCIDP; Tracey Bastian, PharmD

Institution: Williamson Medical Center, Franklin, TN

Background: Nearly ⅓ of outpatient antibiotic prescriptions are unnecessary or inappropriate. QuizTime is a web-based application that delivers daily case-based questions to a learner's email or mobile device and is based on Test-Enhanced Learning Theory. We performed a pre-post analysis to evaluate the impact of a QuizTime micro-learning module on appropriateness of outpatient antibiotic prescriptions.

3. Evaluation of Outcomes for a VA OPAT Program

Authors: Morgan Johnson, DNP; Robin Cooke, PharmD; Milner Staub, MD; Sage Hendrickson, PharmD; Parmida Parvaz, PharmD; Ashley Yost, PharmD; Todd Hulgan, MD

Institution: Tennessee Valley Healthcare System, Veterans Affairs Hospital, Nashville

Background: The Tennessee Valley Healthcare System Outpatient Parenteral Antimicrobial Therapy (OPAT) program manages, monitors, and tracks outcomes associated with prolonged parenteral antimicrobial regimens for Veterans with acute and chronic infections. Currently, there are no national benchmarks for OPAT program performance metrics; however, the Infectious Diseases Society of America OPAT Handbook recommends evaluating adverse events to improve the quality and safety within a local program. Previously, 2-44% of OPAT courses reported adverse events. The Cleveland Clinic reported a 14% readmission rate within 30-days of OPAT and the Dallas VA reported a similar rate of 14% for readmissions from 2016-2018 during OPAT. We evaluated diagnoses, adverse events during OPAT, and outcomes within 90

days after completing an antimicrobial regimen managed by the [Institution Name] OPAT program as a first step of a process improvement initiative as part of our local antimicrobial stewardship program.

4. The impact of pharmacy-driven transitions of care protocol in the treatment of hepatitis C infection

Authors: Sophea Chan, PharmD, MPH; Christo Cimino, PharmD, BCIDP; Austin Ing, PharmD, BCIDP; Benjamin Ereshefsky, PharmD, BCIDP; Laura Bobbitt, PharmD, BCIDP; Ryan David Moss, PharmD; Ana Simonyan, PharmD, BCACP

Institution: Vanderbilt University Medical Center, Nashville, TN

Background: Treatment for hepatitis C virus (HCV) can prevent progression of liver disease, decrease the risk of hepatocellular carcinoma, and decrease mortality and end -stage liver disease. Treatment initiation can be delayed for several weeks due to extensive documentation needed for insurance approval. Pharmacists play critical roles in facilitating staging and treatment approval. However, a gap in the literature exists related to pharmacy-driven transitions of care protocols between the inpatient and outpatient settings to facilitate and initiate hepatitis C treatment approval.

Claiming CE Credit

All instructions for claiming CE credit will be emailed the week of May 20th.

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 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 automatically 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 24-28 hours of completing the evaluation. Belmont University will attempt to contact pharmacists if reports indicate unsuccessful completion of evaluation 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™*. 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)™.* Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Notes

Join Us Next Year!

The 9th Annual Middle Tennessee
Antimicrobial Stewardship Symposium
is tentatively scheduled for May 16, 2025.
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 pharmacyce@belmont.edu.