

2018 Antimicrobial Stewardship Research Workshop

NOVEMBER 14-15, 2018 • BALTIMORE, MARYLAND
Baltimore Harbor Sonesta

www.asresearchworkshop.org

Wi-Fi Login: User: Sonesta Meeting | Password: shea2018

 #ASRW18

 @SHEA Epi

Acquire Your Certificate:

A link to the evaluation site
will be available online at
www.asresearchworkshop.org.



Programming Supported by a Grant Provided by



Co-Organizers





Dear Colleagues,

On behalf of the Society for Healthcare Epidemiology of America (SHEA), the Workshop Planning Committee, our co-organizers, The Centers for Disease and Control and Prevention (CDC), Infectious Disease Society of America (IDSA), The Pediatric Infectious Disease Society (PIDS), and The Society of Infectious Diseases Pharmacists (SIDP), we welcome you to the 2018 Antimicrobial Stewardship Research Workshop in Baltimore, Maryland.

We strongly believe that all healthcare facilities can improve patient outcomes and antibiotic resistance trends by focusing on efforts to eliminate unnecessary antibiotic therapies and raising our patients' understanding of this issue. Implementing comprehensive programs to help providers optimize antibiotic use across healthcare settings is critical and cannot be ignored.

Which is why we are excited to welcome you for the next two days to immerse yourself in education and training focused on antibiotic stewardship research methods. We are very proud of our speakers and the content they've created for this workshop. We feel that all participants will leave the workshop with a better understanding of how to conduct antimicrobial stewardship research designed to improve local use of antibiotics and ultimately improve patient outcomes.

The Antimicrobial Stewardship Research Workshop features: sessions focused on advancing stewardship research efforts combined with round table discussions, networking events and lunches, and a breakfast with faculty on Thursday, November 15 to discuss all things stewardship!

The next two days are packed with education from expert faculty in the field and time to discuss your plans with peers in attendance. If you have a moment, find us or another member of the Planning Committee and let us know what you think of the workshop. We would love to hear your feedback.

SHEA would like to thank Merck & Co for graciously providing a grant to support the development and execution of this critical workshop. Thank you for joining us and enjoy the workshop!

Sincerely,

Planning Co-Chairs



Elizabeth Dodds-Ashley, PharmD, MHS
Duke University School of Medicine



Jeffrey S Gerber, MD, PhD
The Children's Hospital of Philadelphia

Financial Disclosures

All faculty and planning partners have disclosed any financial relationship(s) or other relationship(s) held within the past 12 months relevant to the content presented. SHEA identifies and manages all conflicts of interest prior to delivering the educational activity to learners.

Merck provided SHEA an unrestricted grant to fund the educational development and deployment of this workshop. No employees of Merck have been involved in the development of the workshop content. SHEA is the event organizer and planner of this educational opportunity independent of Merck.

SHEA Antimicrobial Stewardship Research Workshop Planning Committee & Faculty

Planning Co-Chair

Elizabeth Dodds-Ashley, PharmD, MHS
Disclosed no relevant financial relationships

Planning Co-Chair

Jeffrey S Gerber, MD, PhD
Disclosed no relevant financial relationships

Deverick Anderson, MD, MPH
Disclosed no relevant financial relationships

Whitney Buckel, PharmD
Independent contractor: Wolters-Kluwer; Lexicomp
Educational grant: Merck

Alan Gross, PharmD BCPS-AQ ID
Disclosed no relevant financial relationships

Adam L. Hersh, MD, PhD
Contracted Research: CDC Grant: AHRQ

Robin Jump, MD, PhD
Grant/Contract and Advisory Board: Pfizer
Advisory Board: Merck

Ebbing Lautenbach, MD, MPH, MSCE
Consulting Fees: Achaogen
Contracted Research: NIH, AHRQ, CDC

Jeffrey Linder, MD, MPH, FACP
Disclosed no relevant financial relationships

Daniel Livorsi, MD
Grant or Contract: Merck Investigator Studies Program

Preeti Malani, MD, MSJ
Disclosed no relevant financial relationships

Jessina McGregor, PhD
Grant or Contract: Merck

Rebekah Moehring, MD, MPH
Royalty: UpToDate, Inc

Melinda Neuhauser, PharmD, MPH, FASHP, FCCP
Disclosed no relevant financial relationships

Marc Scheetz, PharmD, MSc, BCPS-AQ ID
Consulting Fees: Achaogen, SIGA Technologies, Paratek, Bayer
Contracted Research: CARE Foundation, Merck and Co

Mary Staicu, PharmD
Disclosed no relevant financial relationships

Vanessa Stevens, PhD
Disclosed no relevant financial relationships

Julie Szymczak, PhD
Disclosed no relevant financial relationships

Pranita Tamma, MD, MHS
Grant or Contract: Merck

Theoklis Zaoutis, MD, MSC
Disclosed no relevant financial relationships

Accreditation Information

There is no continuing medical education credit associated with this workshop. A downloadable certificate of attendance will be provided after completing the online evaluation.

Co-Organizers

The Society for Healthcare Epidemiology of America (SHEA), Infectious Disease Society of America (IDSA), Society of Infectious Disease Pharmacists (SIDP), The Pediatric Infectious Disease Society (PIDS) and Centers for Disease Control and Prevention.

Target Audience

This activity is designed for pediatric and adult infectious diseases physicians, healthcare epidemiologists, microbiologists, pharmacists, and other healthcare providers who are involved with creating, implementing, or improving an antimicrobial stewardship program for their healthcare institution. Healthcare professionals representing all sizes of institutions will find the content relevant to their needs.

Learning Objectives

- Provide a detailed overview of the various research methods available to assess antimicrobial stewardship
- Design, implement and disseminate research projects related to antimicrobial stewardship efforts

Schedule at a Glance

Wednesday, November 14

	7:00 am	Registration Opens
	7:00 – 8:00 am	MORNING COFFEE
SETTING THE RESEARCH AGENDA: LET'S STUDY ANTIMICROBIAL STEWARDSHIP	8:00 – 8:15 am	Opening Welcome & Introduction
	8:15 – 9:30 am	The State of Stewardship Research – Success & Remaining Gaps
	9:30 – 10:00 am	The Epidemiology Toolbox (Epi Concepts 101)
	10:00 – 10:15 am	BREAK
	10:15 – 10:45 am	Defining the Research Question: Finding the Right Answers Starts with Finding the Right Questions
	10:45 – 11:30 am	Defining Exposures and Outcomes: Inpatient Considerations
	11:30 – 12:15 pm	Defining Exposures and Outcomes: Outpatient Considerations
	12:15 – 1:15 pm	NETWORKING LUNCH
	1:15 – 1:45 pm	Round Table Workshop
STUDY DESIGN	1:45 – 2:15 pm	Assessing Impact of Stewardship: The Why, When, and How of Interrupted Time Series
	2:15 – 2:45 pm	Other Trial Designs
	2:45 – 3:00 pm	BREAK
	3:00 – 3:30 pm	Developing and Evaluating Your Intervention
	3:30 – 4:30 pm	Interactive Workshop – Designing Research to Answer Your Local Question
	5:00 – 6:45 pm	EVENING NETWORKING EVENT

SETTING THE RESEARCH AGENDA: LET'S STUDY ANTIMICROBIAL STEWARDSHIP

DEFINING AND REFINING YOUR PROJECT

STUDY DESIGN



Interact with the Speaker:
How to use ARS

WEBSITE ADDRESS: shea.cnf.io

Step 1: Enter the website URL in your browser

Step 2: Choose a Session

Step 3: Respond to Polls when they Appear

Respond to Polls when they appear

Thursday, November 15

	7:00 am	Registration Open
	7:00 – 8:00 am	NETWORKING BREAKFAST WITH FACULTY
ASSESSING ANTIMICROBIAL USE	8:00 – 8:30 am	Measuring Antimicrobial Use
	8:30 – 9:00 am	Data Management Principles: The Roadmap for Successful Epidemiological Research
	9:00 – 10:00 am	THREE CONCURRENT SESSIONS SESSION I: Demystifying Basic Statistical Analysis SESSION II: What Not To Do – Faux Pas in Statistical Analysis SESSION III: Office Hours with Faculty
	10:00 – 10:15 am	BREAK
	10:15 – 11:00 am	Novel Strategies for Evaluating Antimicrobial Use
	11:00 – 12:00 pm	Qualitative Research Methods
	12:00 – 1:00 pm	NETWORKING LUNCH
	1:00 – 1:30 pm	What Is Implementation Science? Implications for Conducting Antimicrobial Stewardship Research
	1:30 – 2:00 pm	Challenges in Economic Evaluations of Stewardship
PUTTING IT ALL TOGETHER	2:00 – 2:30 pm	Maximizing the Impact of Your Work: How to Write a Better Manuscript
	2:30 – 3:00 pm	Research in the Real World
	3:00 pm	Adjourn

Networking Events

Please note that the registration fee covers a morning coffee, two networking lunches, a reception, and a breakfast with faculty. All networking events are open only to registered workshop attendees and faculty.

Evening Networking Event

We hope you will be able to join us on Wednesday, November 14 from 5:00 – 6:45 pm at the Rusty Scupper, located 402 Key Hwy, Baltimore, MD for a chance to meet and connect with other attendees and faculty of the workshop! This event is now also open to other SHEA members in the area. As part of the SHEA Member Connection Tour Dr. Aaron Milstone, SHEA Board of Trustees Councilor, will speak on SHEA's current initiatives and provide an opportunity for all to voice their opinions. This is a unique opportunity to interact with SHEA leadership locally, tell us what the society can do to support your career growth and practice, and influence SHEA's future planning.

Networking and Cyber Lounge

Connect with fellow attendees at the new Cyber Lounge! Equipped with laptops, this networking lounge will allow you to check email, charge your devices, and meet other participants between sessions. The Cyber Lounge is located outside of Whitehall Ballroom by Registration.

Networking Lunches, Whitehall Ballroom

Wednesday, November 14, 12:15 – 1:15 pm
Thursday, November 15, 12:00 – 1:00 pm

Breakfast with Faculty

Thursday, November 15, 7:00 – 8:00 am, Whitehall Ballroom
All workshop attendees & SHEA Faculty are invited to attend this exclusive networking opportunity. This is a time for attendees to share and actively participate in conversations with the workshop faculty.

AGENDA

All sessions, unless noted separately, are in Whitehall Ballroom.

Wednesday, November 14

7:00 am	Registration Opens
7:00 – 8:00 am	Morning Coffee
	SETTING THE RESEARCH AGENDA: LET'S STUDY ANTIMICROBIAL STEWARDSHIP
8:00 – 8:15 am	Opening Welcome & Introduction
8:15 – 9:30 am	The State of Stewardship Research – Success & Remaining Gaps
	Whitney Buckel, PharmD
	Robin Jump, MD, PhD
	Jeffrey Linder, MD, MPH
	Learning Objectives:
	<ul style="list-style-type: none"> • Outline recent research related to stewardship in each of the following practice settings: acute inpatient, long term and ambulatory care • Identify main areas where research is acutely needed to address unanswered stewardship questions
9:30 – 10:00 am	The Epidemiology Toolbox (Epi Concepts 101)
	Ebbing Lautenbach, MD, MPH, MSCE
	Learning Objectives:
	<ul style="list-style-type: none"> • Discuss the advantages and disadvantages of various epidemiologic study designs • Characterize different methodological approaches to investigating the impact of an intervention • Evaluate the potential impact of bias and confounding in epidemiologic studies
10:00 – 10:15 am	BREAK
	DEFINING AND REFINING YOUR PROJECT
10:15 – 10:45 am	Defining the Research Question: Finding the Right Answers Starts with Finding the Right Questions
	Vanessa Stevens, PhD
	Learning Objectives:
	<ul style="list-style-type: none"> • Identify the critical components of a good research question • Identify good and bad research questions • Formulate a good research question • Identify a good research question for a testable statistical hypotheses
10:45 – 11:30 am	Defining Exposures and Outcomes: Inpatient Considerations
	Pranita Tamma, MD, MHS
	Learning Objectives:
	<ul style="list-style-type: none"> • Discuss exposures to consider when designing stewardship studies in the inpatient setting • Discuss the pros and cons of various outcomes when designing stewardship studies in the inpatient setting

DEFINING AND REFINING YOUR PROJECT – CONTINUED

11:30 am – 12:15 pm **Defining Exposures and Outcomes: Outpatient Considerations**

Jeffrey Linder, MD, MPH

Learning Objectives:

- *Discuss exposures to consider when designing stewardship studies in the outpatient setting*
- *Discuss the pros and cons of various outcomes when designing stewardship studies in the outpatient setting*

12:15 – 1:15 pm **Networking Lunch**

1:15 – 1:45 pm **Round Table Workshop – Completing the Concept Worksheet**

STUDY DESIGN

1:45 – 2:15 pm **Assessing Impact of Stewardship: The Why, When, and How of Interrupted Time Series**

Jessina McGregor, PhD

Learning Objectives:

- *Define the importance of rigorous evaluation of antimicrobial stewardship interventions*
- *Identify what research/quality improvement questions are best answered through interrupted time series*
- *Identify different outcome types useful in evaluating stewardship efforts*
- *Identify design elements that allow for development of a strong ITS study*
- *Review fundamentals of statistical analysis for interrupted time series*

2:15 – 2:45 pm **Other Trial Designs**

Ebbing Lautenbach, MD, MPH, MSCE

Learning Objectives:

- *Describe quasi-experimental study designs beyond ITS*
- *List key considerations for selecting study designs to assess stewardship interventions*

2:45 – 3:00 pm **Break**

3:00 – 3:30 pm **Developing and Evaluating Your Intervention**

Rebekah Moehring, MD, MPH

Learning Objectives:

- *Outline key aspects of stewardship intervention design to consider before implementation to optimize research success*
- *Describe implementation strategies that will aid in more systematic assessment of stewardship initiatives*

3:30 – 4:30 pm **Interactive Workshop– Designing Research to Answer Your Local Question**

5:00 – 6:45 pm **Evening Networking Event**

We hope you will be able to join us at the Rusty Scupper, located 402 Key Hwy, Baltimore, MD for a chance to meet and connect with other attendees and faculty of the workshop! As part of the SHEA Member Connection Tour, Aaron Milstone, MD, MHS, SHEA Board of Trustees Councilor, will speak on SHEA's current initiatives and answer any questions you may have about SHEA!

Thursday, November 15

7:00 am	Registration Open
7:00 – 8:00 am	Networking Breakfast with Faculty
	ASSESSING ANTIMICROBIAL USE
8:00 – 8:30 am	Measuring Antimicrobial Use
	Whitney R. Buckel, PharmD
	Learning Objectives:
	<ul style="list-style-type: none"> • Define common or standard metrics for comparing antimicrobial usage in response to a stewardship research project • Describe predictive models that produce standardized use metrics • Identify likely sources of variation between institutions when comparing antimicrobial use between facilities
8:30 – 9:00 am	Data Management Principles – The Roadmap for Successful Epidemiological Research
	Deverick Anderson, MD, MPH
	Learning Objectives:
	<ul style="list-style-type: none"> • Discuss importance of data management, including common pitfalls • Learn and discuss necessary components of data management • Learn strategies to improve data management
9:00 – 10:00 am	Three Concurrent Sessions:
	SESSION I: Demystifying Basic Statistical Analysis
	Alan Gross, PharmD, BCPS–AQ ID (<i>Brightons Ballroom</i>)
	Overview of basic data analytics tools from easily accessible software programs. This session will be most useful for the new researcher and those that have had limited experience with conducting their own statistical tests on datasets
	Learning Objectives:
	<ul style="list-style-type: none"> • Understand approaches to preparing (cleaning) your data for statistical analysis • Review the steps to conduct descriptive and univariate analysis using easily accessible software
	SESSION II: What Not To Do – Faux Pas in Statistical Analysis
	Vanessa Stevens, PhD (<i>Whitehall Ballroom</i>)
	A review of common misconceptions and errors in stewardship research and considerations for getting the analysis right. This session is for someone with a moderate amount of experience with data analysis or who uses the services of a statistician or epidemiologist
	Learning Objectives:
	<ul style="list-style-type: none"> • Understand the steps for analyzing data appropriately • Highlight best practices for collaborating with methods colleagues • Review frequently observed missteps in clinical research
	SESSION III: Office Hours with Faculty (<i>Ravenhurst Room</i>)
	Faculty are available to further develop individual projects, advanced statistical methods, and answer questions.
	Faculty and Topic Areas
	<ul style="list-style-type: none"> • Pediatrics, Admin Datasets for Stewardship Research, and OPAT and Discharge Stewardship – Adam Hersh, MD, PhD • How to Design a Study/Analyses to Look at Intervention – Ebbing Lautenbach, MD, MPH, MSCE • Opportunities for Stewardship Research in the VA and Implementation Science – Daniel Livorsi, MD • Career Advice, Comparative Effectiveness Studies, Cohort Studies, Funding Opportunities – Pranita Tamma, MD, MHS • Inpatient and Outpatient Adult-Related Questions, with a Focus on Study Design, Data Management and Career Development – Whitney Buckel, PharmD

10:00 – 10:15 am	Break
10:15 – 11:00 am	Novel Strategies for Evaluating Antimicrobial Use Deverick Anderson, MD, MPH Learning Objectives: <ul style="list-style-type: none"> • <i>Define limitations in current strategies for assessing antimicrobial use</i> • <i>Learn about the DOOR/RADAR scheme for assessing outcomes of patients receiving antibiotics</i> • <i>Discuss the pros and cons of novel strategies for assessing antimicrobial use</i>
11:00 am – 12:00 pm	Qualitative Research Methods Julie Szymczak, PhD <ul style="list-style-type: none"> • <i>Review the sociobehavioral factors that shape antimicrobial prescribing</i> • <i>Consider the evidence for stewardship interventions informed by social science theory</i> • <i>Review best practices and practical approaches to using qualitative methods to study antimicrobial prescribing and the implementation of stewardship interventions</i>
12:00 – 1:00 pm	Networking Lunch
1:00 – 1:30 pm	What Is Implementation Science? Implications for Conducting Antimicrobial Stewardship Research Dan Livorsi, MD <ul style="list-style-type: none"> • <i>Define implementation science and compare and contrast it to other fields</i> • <i>Examine how conceptual models and strategies in implementation science can be applied to antimicrobial stewardship research</i> • <i>Learn from examples of antimicrobial research conducted with an implementation science framework</i>
1:30 – 2:00 pm	Challenges in Economic Evaluations of Stewardship Vanessa Stevens, PhD Learning Objectives: <ul style="list-style-type: none"> • <i>Discuss challenges in forming a pharmacoeconomic models</i>
PUTTING IT ALL TOGETHER	
2:00 – 2:30 pm	Maximizing the Impact of Your Work: How to Write a Better Manuscript Preeti Malani, MD, MSJ Learning Objectives: <ul style="list-style-type: none"> • <i>Discuss the role of traditional platforms for dissemination of work related to antimicrobial stewardship</i> • <i>Provide examples of using social media and blogs as a venue for disseminating work related to antimicrobial stewardship</i>
2:30 – 3:00 pm	Research in the Real World Mary Staicu, PharmD Learning Objectives: <ul style="list-style-type: none"> • <i>Describe stewardship initiatives that are amenable to more scientific dissemination</i> • <i>Outline factors for success in implementing research into routine stewardship team activities</i>
3:00 pm	Adjourn



Our thanks to Merck for its programming support for this conference.



Our thanks to Merck for its programming support for this conference.

UPCOMING SHEA EVENTS

SHEA Spring 2019 Conference

April 24-26
Boston, MA
sheaspring.org



IDWeek 2019

October 2-6
Washington, D.C.
www.idweek.org



LearningCE: SHEA's Online Education Center



LearningCE
SHEA
ONLINE EDUCATION CENTER

Check out SHEA's Online Education Center!

- Available to both Members and Non-Members
- Learn about innovative topics at your own pace
- Stay up-to-date on Healthcare Epidemiology & Antibiotic Stewardship
- Earn and track your CME credit today

Educational Programs available via:

- Webinars
- Podcasts
- On Demand Videos
- Journal CME (coming soon!)

Recordings of the sessions from the 2018 Workshop will be available on LearningCE for all attendees at no cost.

Check out the education today at <https://learningce.shea-online.org>