PROGRAM

Thirty-Fourth Annual Meeting of the Surgical Infection Society

Baltimore, Maryland
May 1–3, 2014
Accreditation Statement
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the American College of Surgeons and the Surgical Infection Society. The American College of Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™
The American College of Surgeons designates this live activity for a maximum of 21 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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Please note: The maximum of 21 Category 1 Credits includes 17 hours for the general scientific sessions and 4 hours for the post-graduate course.

Learning Objectives:
This activity is designed for physicians, research scientists, nurses, nurse practitioners, and pharmacists.

Upon completion of this course, participants will be able to:
Summarize results on the latest research relevant to the diagnosis and treatment of surgical infections
Use antimicrobials for empiric treatment of VAP in trauma patients
Debate current controversies in the diagnosis and treatment of surgical infections
Use antimicrobials for a set course in the treatment of ventilator acquired pneumonia
Discuss recent developments in the study of infection in cellular and molecular mechanisms
Understand current treatment for secondary bacterial peritonitis
This supplement was supported by an unrestricted grant from Merck.
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Wednesday, April 30, 2014

19:00-21:30  Presidential Dinner (By invitation)

Thursday, May 1, 2014

07:00-07:30  Executive Council Breakfast (By invitation)  Sienna
07:30-11:30  Executive Council Meeting (By invitation)  Sienna
06:30-07:30  Breakfast  Cobalt
07:30-11:30  Surgical Infection Course  Ballroom
  Moderators:  David Efron, MD and Stephanie Goldberg, MD
  BIOLOGY OF SEPSIS and PHARMACOLOGY
  Microbiology of Surgical Pathogens  Lena Napolitano  7:30-7:55 am
  Biology and Metabolism of Sepsis  Timothy Billiar  7:55-8:20 am
  Organ Physiology and Multiple Organ Failure/Dysfunction  John Marshall  8:20-8:45 am
  Antimicrobials and Antibiotic Pharmacodynamics  Pamela Lipsett  8:45-9:10 am
  Q and A session  9:10-9:20 am
  Break  9:20-9:30 am
  RISK PREVENTION/PROPHYLAXIS
  Prevention of Hospital-Acquired Infections  E. Patchen Dellinger  9:30-10:00 am
  Clostridium difficile Infections  John Mazuski  10:00-10:20 am
  Q and A session  10:20-10:30 am
  SPECIFIC INFECTIONS
  Necrotizing Soft Tissue Infections  Brian Harbrecht  10:30-10:55 am
  Diagnosis and management of Primary, Secondary, and Tertiary Peritonitis  Mark Malangoni  10:55-11:20 am
  High-Risk Patients: Who are They and How Should They Be Managed?  Soumitra Eachempati  11:20-11:45 am
  Q and A session
11:30-11:45  Nominating Committee  (By invitation)  Sienna

11:45-13:00  Lunch  Cobalt

13:00-16:45  PLENARY SYMPOSIUM
  The Art and Science of Surgical Infections (Papers 1-10)
  Moderators:  William Cheadle, MD and Nicholas Namias, MD

O2. The SIS Study To Optimize Peritoneal Infection Therapy (STOP-IT) Trial: Four Days of Antibiotics Result in Similar Outcomes Compared to Duration. Robert Sawyer, presenting. University of Virginia. Discussant: Philip S. Barie, MD

O3. Expression of MiR-21 is advantageous in the Immune Response to Peritonitis. Rebecca Barnett (Resident), presenting. University of Louisville. Discussant: Michael Morowitz, MD

O4. A prospective randomized study to assess the optimal duration of antimicrobial prophylaxis in total gastrectomy. Ryoji Fukushima, presenting. Teikyo University School of Medicine. Discussant: J. Wesly Alexander, MD


O7. TNF-Ω±, IL-6 and IL-8 cytokines in relation to TNF-Ω±-308 G/A polymorphism in postoperative sepsis. Kavita Baghel, presenting. King George's Medical University, India. Discussant: John Marshall, MD


O10. Screening for Ventilator-Associated Pneumonia in the Surgical Intensive Care Unit: Single-Institution Analysis of 1,013 Bronchoalveolar Lavage. Fredric D. Pieracci, presenting. Denver Health Medical Center/University of Colorado Health Sciences Center. Discussant: Lena Napolitano, MD

16:45-17:30  SIS Antibiotic Duration Study-Robert Sawyer, MD  
Cobalt

17:30-18:15  Surgical Infections Editorial Reception (By Invitation)  
Azure

18:15-19:00  SIS Foundation Board Meeting (By Invitation)  
Cobalt

19:00-20:30  Welcome Reception  
Pool Deck

07:00-08:00  Breakfast Symposium  
Cobalt

08:00-09:45  PARALLEL SESSION I  
Ballroom I

Cellular and Molecular Mechanisms (Papers 11-15)  
Moderators: Ori Rotstein, MD and Brian Zuckerbraun, MD

O11. Cyclic adenosine monophosphate activation of protein kinase A may play a role in the pathogenesis of necrotizing enterocolitis. Catherine Hunter, presenting. Northwestern University. Discussant: Matthew Rosengart, MD
O12. TNFR1 Level in Sepsis is Dependent on MyD88-dependent Upregulation of iNOS in Hepatocytes. Meihong Deng ( Resident/New Member), presenting. UPMC. Discussant: Rachel Khadaroo, MD

O13. Hepatic High Motility Group Box-1 (HMGB1) levels are affected by invariant Natural Killer T-cells in polymicrobial sepsis. John Young (Resident), presenting. Brown University, Rhode Island Hospital. Discussant: Ping Wang, MD


O15. Mitigation of Splenocyte Apoptosis by Th2-Polarized Invariant Natural Killer T Cells Reduces Disease Severity in Intra-abdominal Sepsis. Ram Anantha (Resident), presenting. Schulich School of Medicine and Dentistry, Western University. Discussant: Daithi Heffernan, MD

08:00-9:45 PARALLEL SESSION II
Risk Factors and Surgical Infections (Papers 16-21)
Moderators: E. Patchen Dellinger, MD and Heather Evans, MD

O16. Can nasal methicillin-resistant Staphylococcus aureus screening be used to avoid empiric vancomycin use in intra-abdominal infection? Puja Shah (Resident), presenting. University of Virginia. Discussant: Reza Askari, MD

O17. A randomized, prospective study of surgical site infections following vascular reconstructive surgery: untreated vs. silver-impregnated dressings. Amani Politano (Resident), presenting. University of Virginia. Discussant: Jill Cherry-Bukowiec, MD

O18. Microbial Analysis to Predict Anastomotic Leak in Humans. Preston Luong (New Member), presenting. University of Chicago. Discussant: Brian Zuckerbraun, MD

O19. Vancomycin-Associated Nephrotoxicity; the Obesity Factor. Stephen Davies (Resident/New Member), presenting. University of Virginia. Discussant: Heather Evans, MD


O21. Complex pelvic surgery and additional organ resection independently increase the risk of wound infection after elective colorectal surgery: an ACS-NSQIP analysis. Mary Kwaan (New Member), presenting. University of Minnesota. Discussant: John M. Davis, MD

09:45-10:00 Break-Visit the Exhibits
10:00-11:00 William A. Altemeier Memorial Lecture
“Warping disease space to improve recovery from infections”
David S Schneider, PhD
Associate Professor, Microbiology and Immunology
Associate Chair of the Department
Stanford University School of Medicine
11:00-12:00  **Surgical Infection Society Presidential Address**  Ballroom

“The Wheel”
Nicholas Namias, MD, MBA, FACS, FCCM
Professor and Chief, Division of Trauma and Acute Care Surgery
Robert Zeppa Endowed Chair in Trauma Surgery
Executive Vice Chairman, DeWitt Daughtry Family Department of Surgery
University of Miami, Miller School of Medicine

12:00-13:15  **LUNCHEON SYMPOSIUM**  Cobalt

(Industry-sponsored; not part of scientific program)

13:30-15:15  **UPDATE SYMPOSIUM I**  Ballroom

*GI Fistulae, Anastomotic Leak, and Other Abdominal Catastrophes*

Moderators: Tina Mele, MD and Samir S. Awad, MD

Topic 1: Endoscopic Approaches to Source Control: Rajeev Attam, MD—University of Minnesota
Topic 2: Management of GI Fistulae, Soup to Nuts: David Efron, MD—The Johns Hopkins Hospital
Topic 3: Microbial Pathogenesis of Anastomotic Leaks: John Alverdy, MD—University of Chicago
Topic 4: Closing the Infected Abdomen: If, When, How: Jose Diaz, MD—University of Maryland Medical Center

15:15-13:30  Break-Visit the Exhibits

15:30-17:00  **PARALLEL SESSION III**  Ballroom I

Basic Mechanisms of Infection (Papers 22-27)

Moderators: Timothy Billiar, MD and Daithi Heffernan, MD


O23. Association of Inflammasomes and Caspase-1 Mediated Cardiac Dysfunction with Sepsis. Deborah Carlson, presenting. UT Southwestern. Discussant: Brian Eliceiri, PhD

O24. Invariant Natural Killer T-cells modulate the Gamma-Delta-Lymphocyte response to polymicrobial sepsis. Whitney Young (Resident), presenting. Brown University, Rhode Island Hospital. Discussant: Ping Wang, MD


O26. Mesenchymal Stem Cells Reverse Chronic Stress Induced Bone Marrow Dysfunction Following Traumatic Injury. Amy Gore (Resident), presenting. NJMS-Rutgers. Discussant: William Cheadle, MD

O27. Wound Infection after Attenuating a Key Inflammatory Signaling Pathway. Saman Arbabi, presenting. University of Washington. Discussant: Olga Żaborina, PhD

15:30-17:00  **PARALLEL SESSION IV**  Ballroom II

Hospital Acquired and Skin/Soft Tissue Infections (Papers 28-33)
Reduction of infectious complications following trauma laparotomy through use of a perioperative antibiotic protocol. William Symons (New Member), presenting. Washington University. *Discussant: Jeffery Claridge, MD*

Sustainability of a Hospital-Acquired Pressure Ulcer Prevention Bundle In Surgical Patients. Sylvia Martinez, presenting. Baylor College of Medicine. *Discussant: Sandy Swoboda RN, MSN*

Ventilator-associated Events: Correlation with Ventilator-associated Pneumonia? Arek Wiktor (Resident/New Member), presenting. University of Michigan Health System. *Discussant: Fredric D. Pieracci, MD*

Health-Related Quality of Life Among Necrotizing Soft Tissue Infection Survivors and Clinical Predictors of Poor Outcome. Timo Hakkarainen (Resident), presenting. University of Washington. *Discussant: Jeffrey G. Chipman, MD*

A Surgeon-Directed Peripherally Inserted Central Catheter Team Utilizing a Novel Screening Protocol to Decrease Infectious Complications and Associated Cost. Vihas Patel (Resident), presenting. Brigham and Women. *Discussant: Laura Moore, MD*

Predictors of Mortality Among Intravenous Drug Users with Staphylococcus aureus Bacteremia. Ram Anantha (Resident), presenting. Schulich School of Medicine and Dentistry, Western University. *Discussant: Colin Braithwaite, MD*

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**Saturday, May 3, 2014**

07:00-08:00  **Executive Council Meeting (By invitation)**  
07:00-08:00  **Breakfast**  
08:00-09:00  **UPDATE SYMPOSIUM II: PRO-CON DEBATES**  
**Moderators: Matthew R. Rosengart**  
*The Double X Chromosome: Does Gender Really Matter in Human Disease?*  
Speakers:    
PRO: Jason Sperry, MD, MPH—University of Pittsburgh  
CON: Addison May, MD—Vanderbilt University  

*Is Zero Achievable in CLABSI, CAUTI, and VAP?*  
Speakers:    
PRO: Madhuri Sopirala, MD-University of Cincinnati  
CON: Zero Dark Dirty!-Robert Sawyer, MD-University of Virginia  

09:00-10:00  **UPDATE SYMPOSIUM III**  
*Advanced Platform Technologies: An Update*  
**Moderator: John Alverdy**  
*Topic 1: A Metagenomic Approach to Understand Surgical Infection-The Role of Next Generation Technology-Jack Gilbert, PhD-Argonne National Laboratory*
Topic 2: Computational Needs and Approaches to Manage Metagenomic Data—Scott Christley, PhD—University of Chicago
Topic 3: Statistical Analysis of Megadatasets-Managing Terabytes of Data? Paul Bankey, MD, PhD—University of Rochester

10:00-10:15 FELLOWSHIP AWARD RECIPIENT PRESENTATIONS

Ballroom

Moderators: Philip S. Barie, MD, MBA and Evan Nadler, MD

SIS Foundation Resident Fellowship 2013
Kendall Sowards, MD

SIS Foundation Junior Faculty Fellowship 2013
Jared Huston, MD

10:15-10:30 Break—Visit the Exhibits

10:30-12:00 PARALLEL SESSION V

Proteins, Genes, and Pathogens (Papers 34-38)

Ballroom I

Moderators: John Marshall, MD and Rachel Khadaroo, MD, PhD

O34. The Enteric Nervous System (ENS) Neuropeptide, Bombesin (BBS), Maintains Goblet Cell Function During Parenteral Nutrition (PN). Aaron Heneghan (New Member), presenting. University of Wisconsin Madison. Discussant: Jared Huston, MD


O37. Ursodeoxycholic acid as a mediator of intestinal epithelial cell restitution. Stephanie Papillon (Resident), presenting. Children's Hospital Los Angeles. Discussant: Celeste Finnerty, PhD

O38. NEC as an infectious disease: Identifying strains of opportunistic pathogens. Debi Thomas, presenting. Children's Hospital of Los Angeles. Discussant: Evan Nadler, MD

10:30-12:00 PARALLEL SESSION VI

Clinical Issues in Surgical Infection (Papers 39-44)

Ballroom II

Moderators: Lillian Kao, MD and Jeffery Chipman, MD

O39. A Systematic Approach to Preventing Sharps Injuries in the Operative Care Line at an Urban Tertiary Care Center. Sylvia Martinez, presenting. Baylor College of Medicine. Discussant: Peter A. Burke, MD

O40. Acute kidney injury (AKI) causes persistent dysregulation of the leukocyte transcriptome. Benjamin Szpila (Resident), presenting. University of Florida College of Medicine Discussant: David Efron, MD

O41. External Validation of the Ventral Hernia Risk Score for Predicting Surgical Site Infections. Mike Liang (New Member), presenting. University of Texas Health Sciences Center. Discussant: Donald Fry, MD
O42. Use of Computed Tomography to Diagnose Aspiration in Trauma Patients. Vanessa Fawcett, presenting. University of Washington. Discussant: Philip S. Barie, MD, MBA

O43. Predictors of Monomicrobial Necrotizing Fasciitis. Rhett Willis (Resident/New Member), presenting. University of Virginia. Discussant: Addison May, MD

O44. Transforming growth factor beta induced epithelial-mesenchymal transition leads to persistent intestinal fistulae. Xiuwen, presenting. Jinling Hospital, China. Discussant: Catherine Hunter, MD

12:00-13:15 LUNCHEON SYMPOSIUM
(Industry-sponsored; not part of scientific program)

13:30-15:00 PARALLEL SESSION VII
Pathophysiologic Mechanisms of Infection (Papers 45-49) Ballroom I
Moderators: Marc Jeschke, MD, PhD and Catherine Hunter, MD

O45. Genomic and Proteomic Survival Biomarker Profiles in Severely Burned Children. Padma Gayathri Nainar (Resident), presenting. University of Texas Medical Branch / Shriners Hospitals for Children. Discussant: Marc Jeschke, MD, PhD

O46. Intestinal bile acids differentially control intestinal cell proliferation. Avafia Dossa (Resident), presenting. Children's Hospital Los Angeles. Discussant: Ziad Sifri, MD

O47. The gut during prolonged critical illness harbors low membership pathogen communities that are less virulent as a group than individually. Olga Zaborina, presenting. University of Chicago. Discussant: Mary Kwaan, MD


O49. Differential Immune and Hormonal Expression in Cardiac Versus Hepatic Blood after Burn Injury in Rodents. Marc Jeschke (Resident), presenting. Sunnybrook Health Sciences Centre. Discussant: Tina Palmieri, MD

13:30-15:00 PARALLEL SESSION VIII:
The Surgical Infection Society Supreme Court (Papers 50-54) Ballroom II
Moderators: Pamela Lipsett, MD, MHE, and Nicholas Namias, MD, MBA, John Alverdy, MD, Robert Sawyer and E. Patchen Dellinger


O52. Early appropriate empiric antimicrobial prescribing in septic patients presenting to the emergency department does not lead to decreased mortality. James Gilmore (Resident), presenting. Brigham and Women.

O53. CAUTIs and CLABSIs: Do physicians REALLY know what they are? Therese Duane, presenting. Virginia Commonwealth University Medical Center.

16:00-17:20 POSTER SESSION (Posters 1-52)  
Basic and Clinical Studies in Surgical Infection  
Ballroom Foyer

Moderators:  Group A: (P1-P8)  
Olga Zaborina, PhD and Marc Jeschke, MD  
Group B: (P9-P17)  
Brian Elicieri, PhD and Celeste Finnerty, PhD  
Group C: (P18-P27)  
Jeffery Tessier, MD and Therese Duane, MD  
Group D: (P28-P33)  
Kaysie Banton, MD and David Blake, MD  
Group E: (P34-P43)  
Reza Askari, MD and Howard Belzberg, MD  
Group F: (P44-P52)  
Christine S. Cocanour, MD and Samir Awad, MD

19:00-20:00 New Member Reception  
Ballroom Foyer
20:00-22:00 Awards Banquet  
Ballroom
22:00 ADJOURNMENT