

October/November 2015

Critical Connections

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Society of
Critical Care Medicine
The Intensive Care Professionals



Society of
Critical Care Medicine
The Intensive Care Professionals
Headquarters
500 Midway Drive
Mount Prospect, IL 60056

- ▲ February 20-24, 2016
- ▲ Orange County Convention Center
- ▲ Orlando, Florida, USA



50% of patients in the ICU will develop some stage of Acute Kidney Injury (AKI)

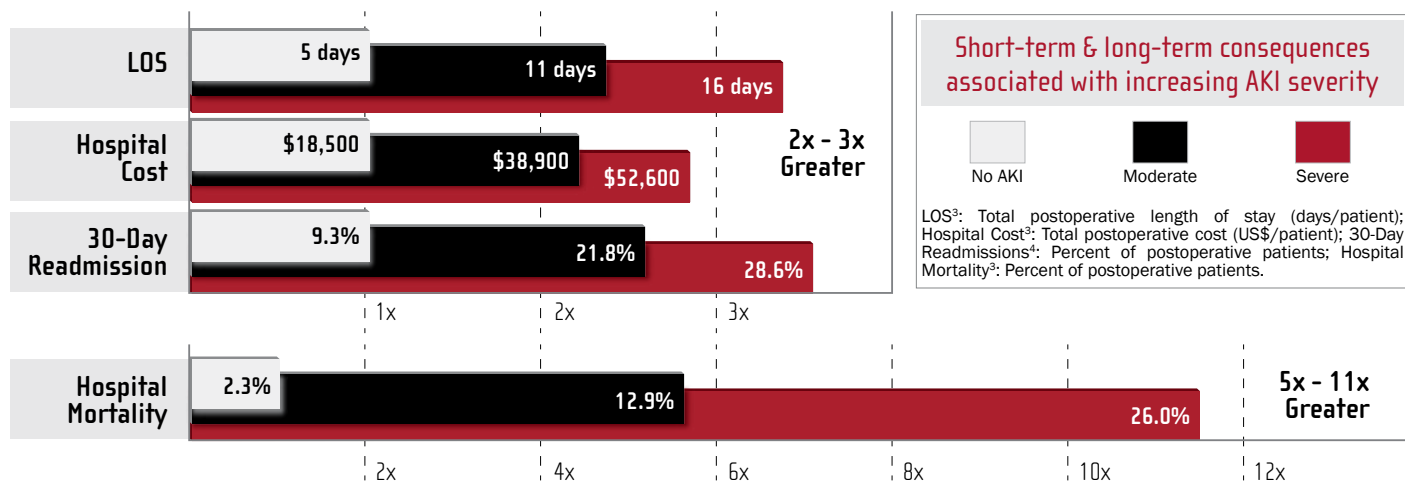


NephroCheck®



Everything is at least 2-3 times worse with Moderate to Severe AKI

Acute Kidney Injury is an increasingly common and potentially devastating complication in hospitalized individuals.¹ Studies suggest that approximately half of all patients admitted to the ICU will develop some stage of Acute Kidney Injury.² If a patient develops an AKI complication during hospitalization, short-term and long-term consequences could be twice as severe, such as length of stay (LOS),³ hospital cost,³ 30-day readmissions⁴ and hospital mortality.³



The challenge is that acute kidney injury (AKI) is difficult to identify early¹ and delays in recognizing AKI can lead to irreversible damage and high mortality⁵

[1] McCullough P, et. al. Contrib Nephrol. 2013;182:13-29.
[2] Mandelbaum T, et. al. Crit Care Med. 2011;39(12):2659-2664

[3] Dasta J, et. al. Nephrol Dial Transplant. 2008;97(1):1970-1974
[4] Brown J, et. al. Ann Thorac Surg. 2014;97(1):111-117
[5] Martensson J, et al. Brit J Anaesth. 2012;109(6):843-50.

The NEPHROCHECK® Test: A Renal "Alarm System"

The NEPHROCHECK® Test quantitatively measures two urinary biomarkers - tissue inhibitor of metalloproteinase 2 (TIMP-2) and insulin-like growth factor binding protein 7 (IGFBP-7) - and combines them into a single AKIRisk™ Score. Both biomarkers are thought to be involved in G1 cell-cycle arrest during the earliest phases of injury to the kidney.⁶

[6] Kashani K, et. al. Crit Care. 2013;17:R25

Now you can identify, stratify and mitigate your risk of acute kidney injury (AKI)

The NEPHROCHECK® Test aids in identifying patients at risk for moderate to severe AKI in the next 12 hours so physicians can proactively assess the need for AKI preventative measures.



Identify:

A quantitative AKIRisk™ Score allows the clinician to discriminate patients at risk of AKI.



Stratify:

Clinicians can triage patients into lower risk and greater risk groups for developing moderate to severe AKI in the next 12 hours.



Mitigate:

Clinicians may implement their preferred kidney sparing strategies to potentially mitigate the severe consequences associated with Acute Kidney Injury.

Intended Use and Indications for the NEPHROCHECK® Test System

The NEPHROCHECK® Test System is intended to be used in conjunction with clinical evaluation in patients who currently have or have had within the past 24 hours acute cardiovascular and or respiratory compromise and are ICU patients as an aid in the risk assessment for moderate or severe acute kidney injury (AKI) within 12 hours of patient assessment. The NEPHROCHECK® Test System is intended to be used in patients 21 years of age or older.



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From the Editor...

This special issue of *Critical Connections* highlights the many exciting activities planned for the Society of Critical Care Medicine's (SCCM) 45th Critical Care Congress, to be held February 20 to 24, 2016, in Orlando, Florida, USA. We hope you plan to join us.

The Society's annual Congress is the largest multiprofessional critical care event of the year, bringing together more than 6,000 critical care clinicians from around the world. This five-day event will offer opportunities to explore breakthroughs in research, share creative and stimulating ideas, make valuable connections, and obtain inspired perspectives from all members of the multidisciplinary, multiprofessional critical care team.

Keeping with tradition, all components of this stellar program were designed to highlight the most up-to-date, evidence-based developments in critical care medicine. Take advantage of the superb offerings, which include cutting-edge educational sessions, hands-on workshops, captivating symposia, and compelling plenary sessions. Regardless of your profession or role in the critical care team, you will find opportunities to enhance your practice at this year's Congress. ▲



Sandra L. Kane-Gill, PharmD, MS, FCCM, is an Associate Professor of Pharmacy and Therapeutics, University of Pittsburgh, School of Pharmacy, Pittsburgh, Pennsylvania, USA, and Critical Care Medication Safety Pharmacist at UPMC.

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If you are Board Certified/Board Eligible in Critical Care Medicine and this sounds like the opportunity for you, please contact me at your earliest convenience. I look forward to speaking with you!

Amber Chavez
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* Saint Louis position includes bedside shifts

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President's Message

Spotlight on Sepsis

Sepsis is a devastating disease. Between 230,000 and 370,000 people die of sepsis annually in the United States, making it the third most common cause of death in the country. Unfortunately, the incidence of sepsis worldwide is even higher, leaving a trail of destruction across the globe.

And yet, if you mentioned sepsis to the average lay person even a few years ago, you would likely have been met with a blank stare. Sadly, the low public profile of sepsis has been remarkably disproportionate to the misery it causes, both to patients and families alike. In many places, sepsis has been all but invisible. For instance, the World Health Organization website lists the top 10 causes of death across a host of parameters throughout the world. The word “sepsis” literally does not show up on any list a single time because syndromes are not considered to be a cause of death.

This has historically been frustrating to many of my colleagues who tirelessly work on behalf of the millions of septic patients worldwide. While other diseases have had visible spokespeople (Michael J. Fox), successful campaigns (Race for the Cure) or YouTube videos gone viral (the Ice Bucket Challenge), sepsis has had...well...none of these. I mention these other disease states not to compare the burden of sepsis to Parkinson's disease or breast cancer or ALS—obviously a counterproductive exercise as each is horrific in its own right. Rather, I bring these examples up because the sepsis community aspires to match the success seen in raising the public profile of these other diseases—success that assuredly could accelerate our fight against this deadly disease.

Despite this challenging history, over the last few years, the tide is quickly turning. We are currently witnessing before our eyes a “tipping point” in the worldwide fight against sepsis and the raising of public consciousness required to make sepsis the public health priority it deserves to be. And at every step of the way, the Society of Critical Care Medicine (SCCM) is taking the lead in this fight.

There are so many exciting initiatives ongoing that I could fill an entire issue of Critical Connections with the great work being done by my colleagues at SCCM. But I will instead highlight just a few with apologies to those who I deeply respect but don't have room to mention. The cornerstone of our anti-sepsis efforts has been the Surviving Sepsis Campaign. With three iterations of our guidelines out and a fourth on the way, there are tens of thousands of patients (if not more) who are participating in the campaign worldwide. The evidence is clear: mortality from sepsis is decreasing, and higher compliance with the Surviving Sepsis Campaign bundles is associated with decreased mortality. The National Quality Forum took the

Surviving Sepsis bundles and directly incorporated them into the first national quality metric on sepsis (and one of the first on critical care). Around the time you read this, public reporting of compliance with elements of the bundles will become required by the Centers for Medicare & Medicaid Services. While there will be some effort associated with this reporting, it is incredibly exciting that sepsis is moving front and center on the national stage in the United States, since there is every reason to believe that reporting will lead to better compliance, which, in turn, will lead to better care and better outcomes for septic patients.

And now the Surviving Sepsis Campaign is expanding. In collaboration with the Hellman Foundation, a pilot project is underway on combatting sepsis in resource-limited countries. The approach that needs to be taken will be drastically different, but a project in the Ruhango District in the Southern Province of Rwanda on early recognition and treatment of sepsis has the potential to not only impact people in the local community but also to be scalable and have far reaching benefits in other resource-limited environments.

Yet, that's not all. In February at our annual meeting (spoiler alert!), a new definition of sepsis and septic shock will be unveiled. This effort—the result of a joint SCCM and European Society of Intensive Care Medicine effort that will be endorsed by societies throughout the world—will be an evidence-based definition informed by a “big data” analysis of multiple databases combined with expertise from around the globe. This dovetails perfectly with a new SCCM partnership with the experts in the Centers for Disease Control and Prevention to help come up with a nationwide surveillance program for sepsis. In addition, key leaders at SCCM were recently invited to a consensus conference at the National Institute of Child Health and Human Development at the National Institutes of Health on pediatric multiple organ dysfunction, with an emphasis on sepsis that seems likely to spur exciting new discoveries in the fight against pediatric sepsis.

If you told me a few years ago that all of this could possibly occur in a one-year span, I would have thought you were crazy. And yet, here we are. Sometimes, when one is in the middle of making history, it is difficult to take a step back to appreciate everything that is going on. So, I urge each of you to take some time to savor the progress we have made on so many fronts in combatting sepsis. And then, let's dive in together to recognize, treat and fight this horrific disease so more and more patients will successfully survive sepsis and thrive long-term! ▲



Craig M. Coopersmith, MD, FCCM, is a professor of surgery and Vice Chair of Research, Emory University School of Medicine; Associate Director of the Emory Critical Care Center; and director of the surgical/transplant intensive care unit at Emory University Hospital.
@SCCMPresident.

Business Line Update

One of the aims of Critical Connections is to keep the membership informed about the Society's myriad of activities and initiatives. Toward that end, a different Business Line leader will use this space each issue to provide updates about the undertakings and priorities of their respective Business Line.

ICU Management Business Line

Home to multiple groups of hard working volunteers, the ICU Management Business Line has a variety of productive endeavors. This Business Line encompasses Billing and Coding, the NP/PA e-Learning Task Force, the Tele-ICU Committee, the Ethics Committee, and the Grenvik Family Award for Ethics and ICU Design Citation Award Committees. This Business Line is led by SCCM Council members Lewis J. Kaplan, MD, FCCM, and Sandra L. Kane-Gill, PharmD, MS, FCCM, and staff partners Diana Hughes, CAE, and Colette Punda.

Billing and Coding supports member education throughout the year through the Coding Corner feature in Critical Connections, as well as durable courses at Congress and publications addressing concerns for providers of all specialties, including specific regulations governing advanced practice providers (APPs).

Relatedly, the NP/PA e-Learning Task Force has been tremendously productive this year. Drawing on a vast pool of individual expertise, this group has identified existing SCCM resources and grouped them in a curriculum-like fashion that focuses on basic and advanced concepts key to APP

Home to multiple groups of hard working volunteers, the ICU Management Business Line has a variety of productive endeavors.

success in critical care. They also launched a very successful course in 2015 and another one is being planned for 2017. The efforts of this task force were considered necessary to meet the ongoing needs of our membership. This task force will be transformed into a standing committee in 2016.

As telemedicine expands in unexpected ways, the Tele-ICU Committee continues to explore and publish on issues in regulation, billing, and technology to support how SCCM members utilize and benefit from this growing approach to ICU safety, quality and outreach.

Serving in a pivotal role, the Ethics Committee shoulders some of the most difficult aspects of critical care. This group provides case studies, webcasts

and publications that provide guidance and support member understanding of deployable ethical concepts that impact daily care.

The ICU Management Business Line proudly hosts two award-based committees whose work is often challenging from a complexity and time standpoint, but each year they reliably bring you the most worthy individuals, teams or designs in their domains. ▲



Lewis J. Kaplan, MD, FCCM, is chief of surgery at Philadelphia VAMC in Philadelphia, Pennsylvania, USA.



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East



Grand View Hospital Sellersville, PA

Intensivist Physician

- ▶ 202 bed hospital / 14 ICU beds
- ▶ 40 miles north of Philadelphia



Raritan Bay Medical Center Perth Amboy and Old Bridge, NJ

Intensivist Physician

- ▶ Perth Amboy - 300 bed hospital / 20 ICU beds
- ▶ Old Bridge - 180 bed hospital / 10 ICU beds
- ▶ Area leader in cardiovascular care



St. Francis Hospital Wilmington, DE

Intensivist Physician

- ▶ 214 bed hospital / 14 ICU beds
- ▶ 40 minutes outside of Philadelphia



St. Luke's Cornwall Hospital Newburgh, NY

Intensivist Physician

- ▶ 240 bed hospital / 18 ICU beds
- ▶ Newest Emergency Department in the region

Southeast



Florida Hospital Tampa Tampa, FL

Intensivist Physician

- ▶ 475 bed hospital / 36 Med-Surg ICU beds
- ▶ 9 CCU beds / 8 Cardiothoracic ICU beds
- ▶ Tertiary hub for 5 hospitals in health system

Midwest



Mercy Hospital Anderson Eastern suburb of Cincinnati, OH

Program Medical Director

- ▶ 18 ICU beds and inpatient pulmonary consult
- ▶ Inpatient pulmonary / critical care program



SSM St. Mary's Health Center St. Louis, MO

Intensivist Physician

- ▶ 525 bed hospital / 24 ICU beds
- ▶ Teaching hospital in metro St. Louis

West



Regional Medical Center of San Jose San Jose, CA

Intensivist Physician

- ▶ 216 bed hospital / 34 ICU beds
- ▶ Accredited by The Joint Commission



St. Bernardine Medical Center San Bernardino, CA

Intensivist Physician

- ▶ 342 bed hospital / 32 ICU beds
- ▶ Easy access to all of Southern California

Ambassador Physician

- ▶ Board Certified Critical Care physician in a full-time intensivist position, traveling and working between two programs
- ▶ All travel and lodging is paid in addition to receiving full-time benefits

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Contact Cathy Harbert, Director of Recruiting, at 330.418.2226 or by email at CHarbert@theintensivistgroup.com

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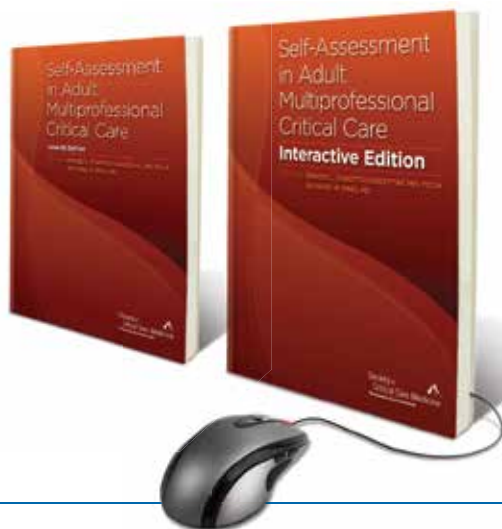
LEARN all you need to know with Self-Directed Multiprofessional Critical Care Board Review Course (MCCBRC). Experience the same didactic sessions from the 2015 live version of the course at your own pace.

Physicians, nurses and pharmacists are eligible to receive 41.75 hours of continuing education credit.

REVIEW the full gamut of critical care topics in *Comprehensive Critical Care: Adult*, the most complete critical care textbook for any learner in adult practice.



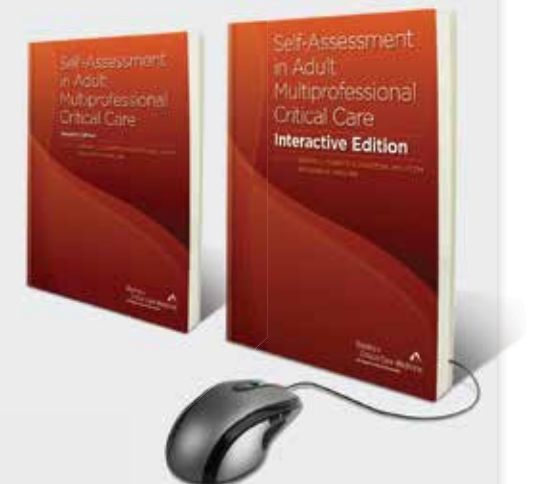
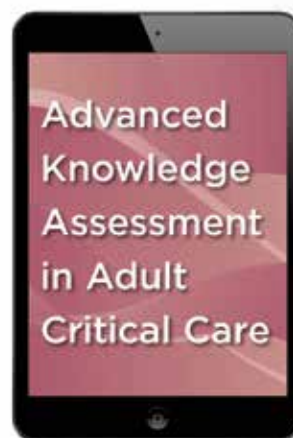
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ASSESS your knowledge with Self-Assessment in Adult Multiprofessional Critical Care, a collection of over 300 questions, answers and rationales from the top 20 critical care focus areas. Available in interactive, print and eBook formats.



EVALUATE your critical care knowledge while receiving maintenance of certification credit with the Advanced Knowledge Assessment in Adult Critical Care, composed of 150 questions and rationales with accompanying study materials.





Critical Care Congress

New and Expanded

Pre- and Post-Congress Educational Sessions

Participate in pre- or post-Congress educational sessions. Each course is packed with essential clinical information to keep you well informed on various critical care topics. This year's courses include: Advanced Practice Providers in the ICU: Finances and Productivity, Adult Airway Management in the Critically Ill, Advances in Veterinary Critical Care, Critical Care Pharmacy Preparatory Review and Recertification Course, Critical Care Ultrasound, Critical Care Ultrasound – Pediatric, Current Concepts in Adult Critical Care, Current Concepts in Pediatric Critical Care, ECMO Management, Fundamentals Faculty Academy, Hemodynamic Monitoring: From Cardiovascular Physiology to Applied Intensive Care Medicine, and Mechanical Ventilation: Strategies and Implementation. For course details, see pages 8 and 9.

Research Snapshot Theaters and ePosters

Research Snapshot Theaters will showcase Research Snapshot award winners and authors of accepted abstracts and the top case reports. Authors will present their submissions, and sessions will be moderated by noted faculty and experts. Presentations will be held in designated sections of the Exhibit Hall on Sunday, February 21 through Tuesday, February 23, 2016. All abstracts will be on display in the Poster Hall. In addition, attendees will have the opportunity to view all posters in an electronic format via computers, screens and other mobile views. These ePosters will be searchable and will include enhanced information to provide the most recently available critical care research.

Social Media

Meet with members of SCCM's Social Media Task Force in the Social Media Lounge located in the Exhibit Hall, booth #118. Explore social media trends and discover new ways to use social media professionally. If you are active on social media, post to Twitter with hashtag #CCC45 and help capture the excitement of Congress! Be sure to check out the running Twitter wall in the Exhibit Hall.

SCCM Futures Booth

Join us January 21 to 25, 2017, in Honolulu, Hawaii, USA, for the 46th Critical Care Congress. Stop by the SCCM Futures Booth, #120, and step into the Aloha life. Accessorize in true island style and snap a selfie! Post to Twitter with hashtag #CCC46 and encourage your colleagues to join you in the Hawaiian sunshine.

Sightseeing Activities

Experience some of central Florida's exciting theme park attractions. SCCM is offering discounted admission tickets to Walt Disney World® Resort and Universal Orlando Parks. See page 32 for more details.

Back by Popular Demand

Congress On Demand

Full Congress attendees gain access to Congress On Demand for continued learning after the live event. Congress On Demand contains the audio recordings and slides from hundreds of individual presentations drawn from the concurrent, joint and plenary educational sessions, as well as breakfast symposia. Your subscription to this resource is included in your Congress registration fee. On Demand will be available approximately 10 days after Congress ends.

Educational Symposia

Learn about clinical breakthroughs and advances in patient care during educational symposia. Supported by an educational grant from Merck, the session Improving Clinical Outcomes and Pathogen-Directed Therapy for Serious Bacterial Infections in the Critical Care Setting will take place on Monday, February 22, 2016, at 6:30 a.m. This session is complimentary for all Congress registrants, and no additional registration is needed to attend.

Congress App

Access the Congress schedule and much more from the palm of your hand. With apps built specifically for the iPad®, iPhone® and Android™, you can search for sessions, speakers, business meetings, exhibitors, and abstracts. The app will be available for download in early 2016.

CME/CE and MOC Credit

Continuing education (CE), continuing medical education (CME) and maintenance of certification (MOC) credits are available to Congress attendees. Attendees should claim credit commensurate with the extent of their participation in the activity. For your convenience, CME/CE stations will be located near the registration area so you can complete evaluations and forms on site.



Plenary Sessions

Attend thought-provoking presentations that promote innovative developments in critical care. Plenary sessions are held at unopposed times with presentations given by distinguished, world-renowned leaders in the critical care field. Speakers include:



Derek C. Angus, MD, MPH, FRCP, MCCM

Chair, Department of Critical Care Medicine
Distinguished Professor and Mitchell P. Fink Endowed Chair
Department of Critical Care Medicine, University of Pittsburgh
University of Pittsburgh Medical Center Health System
Pittsburgh, Pennsylvania, USA



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Professor and Head
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Baltimore, Maryland, USA



Jean-Louis Vincent, MD, PhD, FCCM

Professor of Intensive Care Medicine, Université Libre de Bruxelles
Head, Department of Intensive Care
Erasmus University Hospital
Brussels, Belgium

Popular Congress Events and Sessions

Fellowship Program Directors' Luncheon

Critical care fellowship program directors are invited to participate in the Fellowship Program Directors' Luncheon, to be held Monday, February 22, 2016, from 12:15 p.m. to 1:30 p.m. at the Orange County Convention Center. This year's luncheon will address fellowship program use of simulation to provide training in non-procedural areas as well as methods for measuring competence using simulation. Nationally recognized experts will present and lead the discussion. *This is a ticketed session and requires advance registration and an additional fee to attend.*

Educational Symposia

Learn about clinical breakthroughs and advances that lead to better patient care during these thought-provoking presentations. Each session is presented by leading experts in critical care and offers a thorough analysis of the developments and controversies affecting most ICU environments. These industry-supported sessions are complimentary for all Congress registrants and no additional registration is needed to attend.

Abstract Presentations and Poster Hall Events (Non-CE Sessions)

Poster Displays and ePosters

Abstracts of original scientific research findings will be on display in the Poster Hall, which will be open Sunday, February 21, through Tuesday, February 23, 2016. In addition to the standard Poster Hall, attendees will have the opportunity to view all posters in an electronic format via computers, screens and other mobile views. ePosters will be searchable and will include enhanced information to provide the most recent critical care research available.

Star Research Presentations

These presentations (previously known as Oral Presentations) will be scheduled, unopposed, for two hours on Sunday, February 21, 2016. They will highlight the top 64 abstracts submitted. The abstracts presented during these sessions will not be on display in the Poster Hall but can be found as ePosters.

Research Snapshot Theaters

Research Snapshot award winners and authors of accepted abstracts and the top case reports will present their submissions with time for questions and answers. Sessions will be moderated by noted faculty and experts to facilitate the exchange of ideas and commentary. Presentations will be held in designated sections of the Exhibit Hall on Sunday, February 21 through Tuesday, February 23, 2016.

Abstract Awards Presentation

Winners of SCCM's abstract-based awards will be recognized during a ceremony on February 21, 2016.



Pre-Congress Educational Sessions

Arrive in Orlando early and participate in Pre-Congress educational sessions. Each course is packed with essential clinical information to keep you well informed on various critical care topics. Course prices vary.

Friday, February 19 and Saturday, February 20, 2016

Full-Day Courses *Breakfast and lunch are included in the registration fee.*

Advances in Veterinary Critical Care

Held in partnership with the American College of Veterinary Emergency and Critical Care



This course is designed for veterinary emergency and critical care practitioners, residents and interns. It will focus on veterinary cardiac disease and analgesia/anesthesia. The first day talks will be given by the winner of the 2015 Jack Mara Scientific Achievement award. Topics to be covered include cardiac function, treatment of congestive heart failure, cardiac arrhythmias, and pulmonary hypertension, in addition to cardiac imaging modalities. Day two topics will include the selection and use of anesthetic, analgesic, and anxiolytic drugs in the veterinary ER and ICU, in addition to anesthetic planning for critically ill patients. The second day will culminate in a mock exam for those preparing to sit for the ACVECC boards.

Critical Care Pharmacy Preparatory Review and Recertification Course

Held in partnership with the American College of Clinical Pharmacy



This two-day course is ideal for professionals who are preparing for the Critical Care Pharmacy Specialty Certification Examination administered by the Board of Pharmacy Specialties (BPS) [spring and fall of 2016]. Developed and presented by nationally and internationally recognized faculty, the course provides a comprehensive review of the knowledge domains covered in the critical care specialty. This course is also an excellent review for pharmacy professionals seeking a refresher on relevant critical care disease states and therapeutics. The course uses a case-based approach, with a strong emphasis on the thought processes needed to solve patient care problems.

Topics covered include (but are not limited to): cardiovascular care, hepatic/GI/endocrine emergencies, infectious diseases, neurocritical care, practice administration and development, pulmonary disorders, renal disorders, research design, and supportive and preventive care.

Critical Care Ultrasound

Gain the realistic training needed to perform and interpret ultrasound imaging during this two-day comprehensive course. Participants benefit from guided, focused skill stations, featuring live models and interactive presentations to reinforce key learning points.

Critical Care Ultrasound – Pediatric

Learn how to perform and interpret pediatric ultrasound imaging during this comprehensive two-day course. Extensive faculty coverage ensures a significant hands-on experience for each participant.

Current Concepts in Adult Critical Care

Enhance and update your critical care knowledge by attending this two-day multidisciplinary course, which highlights a variety of topics applicable to the ICU setting. The interactive format will include presentations on select topics, such as: decoding patient safety and quality in the ICU, controversies in traumatic brain injury, emerging infectious diseases, envisioning the future of critical care practice, management of the burn-injured patient, and an update in emergency airway management.

The registration fee includes a copy of the 2016 edition of *Current Concepts in Adult Critical Care* and access to the On Demand version of the course.

Current Concepts in Pediatric Critical Care

Attain expert knowledge and bring home new information and approaches for your pediatric critical care practice. This two-day interactive course will focus on clinical challenges immediately pertinent to the critical care practitioner and provide insight into new and controversial topics. This year, topic areas will include updates on new and cutting-edge approaches to traumatic brain injury, trauma, and stroke. The sessions will also include a range of additional topics, along with the opportunity to watch and engage with experts as they debate the appropriate timing of tracheostomies in the pediatric ICU, and whether the choice of ventilator modes matters.

The registration fee includes a copy of the 2016 edition of *Current Concepts in Pediatric Critical Care* and access to the On Demand version of the course.

Join your colleagues in several American College of Critical Care Medicine (ACCM) activities. Support members as they are inducted into the College during the Convocation and Society of Critical Care Medicine (SCCM) Awards Ceremony, and network with the ACCM leadership during the business meeting. As an organization devoted to creating a greater understanding of critical care, ACCM emphasizes quality management in the practice and administration of care, communication and public opinion. Become more involved with the ACCM and SCCM during these events.

ACCM Convocation and SCCM Awards Ceremony

Monday, February 22, 2016; 6:00 p.m. – 8:00 p.m.
Hyatt Regency Orlando.

Members and guests are invited to attend the ACCM Convocation and SCCM Awards Ceremony, where new Fellows will be inducted into the College, and award and grant recipients will be honored. Come support your colleagues during this prestigious occasion.



David N. Herndon, MD, MCCM, will receive the 2016 ACCM Distinguished Investigator Award, ACCM's highest recognition given to an individual whose scientific and educational contributions to the art and science of critical care demonstrate career commitment. Join your colleagues in congratulating Herndon and plan on attending his address, "Modulation of the Hypercatabolic Response to Burn Injury" on Tuesday, February 23, 2016 during the Research Spotlight Session in the Orange County Convention Center.

ACCM Business Meeting

Tuesday, February 23, 2016; 12:00 p.m. – 12:30 p.m.
Orange County Convention Center

The leadership of the ACCM will announce election results for the 2016-2017 Board of Regents and summarize ACCM activities over the past year. This is a great opportunity to meet with board members and network with ACCM Fellows.

Become a Fellow of the American College of Critical Care Medicine

Tuesday, February 23, 2016; 12:30 p.m. – 1:30 p.m.
Orange County Convention Center

Attend this year's session to obtain information on joining your colleagues and becoming a Fellow of this distinguished body. You can also stop by the Critical Connections Cafe or contact Carol Prendergast at cprendergast@sccm.org to obtain information. Apply online at www.sccm.org/VACCM. Applications are due March 15, 2016.

Fellows of the College are eligible to nominate other Fellows for the designation of Master of Critical Care Medicine (MCCM). Contact Carol Prendergast to obtain the award criteria or visit www.sccm.org/VACCM. Nominations are due April 15, 2016.

ACCM Town Hall

Tuesday, February 23, 2016; 3:00 p.m. – 4:30 p.m.
Orange County Convention Center

All Congress attendees are invited to attend the ACCM Town Hall. Jean-Louis Vincent, MD, PhD, FCCM, and Marie Baldisseri, MD, MPH, FCCM, will present a pro/con debate, Fluid: Friend or Foe? Wendy Ricketts Greene, MD, FACS, FCCM, and A. Joseph Layon, MD, FACP, will address the topic, Oxygen: Too Much or Not Enough?

Saturday, February 20, 2016

Half-Day Course *Beverages are included in the registration fee.*

Advanced Practice Providers in the ICU: Finances and Productivity

This half-day course will discuss the financial aspects of utilizing advanced practice providers in the ICU, including approaches to assess costs and revenues, billing choices, relative value unit strategies, and productivity evaluations. Case studies and audience participation will be used to synthesize the information presented.

Full-Day Courses *Breakfast and lunch are included in the registration fee.*

Adult Airway Management in the Critically Ill

This hands-on course will provide information on airway anatomy, management of the difficult airway, anatomic surprises, airway devices and pharmacologic support. The afternoon will consist of skill stations for direct laryngoscopy, percutaneous and surgical cricothyroidectomy, channeled and non-channeled airway devices, and King airway insertion and removal.

Fundamentals Faculty Academy

This single-day course will introduce intensivists and other intensive care unit clinicians to Fundamental Critical Care Support (FCCS), Pediatric Fundamental Critical Care Support (PFCCS) and Fundamental Disaster Management (FDM). Offered for both those interested in bringing FCCS, PFCCS or FDM to their institutions and individuals from institutions currently hosting a Fundamentals course, leading course consultants and developers will share strategies for ways to improve how the course is provided within a variety of environments. In addition, each registrant will be able to choose a complimentary version of Self-Directed FCCS, Self-Directed PFCCS, or Self-Directed FDM.

Hemodynamic Monitoring: From Cardiovascular Physiology to Applied Intensive Care Medicine

This course will review basic principles of cardiovascular physiology as applied to specific critical illnesses, along with current technologies in ICU cardiovascular monitoring. The morning will consist of a large-group didactic session, and the afternoon format will include small groups and case-based scenarios at the "virtual bedside."

Mechanical Ventilation: Strategies and Implementation

This hands-on course will provide a practical overview of the field of mechanical ventilation, including the implementation and troubleshooting of a personalized, open lung protective ventilation strategy. The afternoon will consist of skill stations designed to enhance learner understanding of positive end-expiratory pressure selection, including the role for bedside respiratory mechanics measurements and esophageal manometry in a lung protective strategy, patient-ventilator asynchrony, ventilator liberation, and the ever-expanding array of noninvasive ventilatory support devices and interfaces.

Post-Congress Educational Session

Extend your Congress experience and participate in the ECMO Management course in Tampa, Florida, USA.

Thursday, February 25 and Friday, February 26, 2016

Full-Day Course *Breakfast and lunch are included in the registration fee.*

ECMO Management

Held in partnership with the Extracorporeal Life Support Organization

Explore the basic management principles common to extracorporeal membrane oxygenation (ECMO) programs for both adult and pediatric patients. This intense two-day simulation course will cover topics including basic physiology of ECMO, equipment and patient selection, and economic and ethical considerations. This course will be held at the University of South Florida Health Center for Advanced Medical Learning and Simulation in Tampa, Florida, USA. Round-trip transportation between Orlando and Tampa will be provided with limited transportation back to Orlando. For hotel and travel details, see page 31 or visit www.sccm.org/Congress.



Session by Topic Area

▲ ADMINISTRATION

- Coding: What You See Is What You Get P. 16
- Critical Care Needs and Capacity Building in Limited Resource Settings P. 24
- The Naked Patient: Privacy in the Setting of Big Data P. 23
- New American College of Critical Care Medicine Guidelines P. 18
- Preparing for a Deadly Infectious Disease in My Unit P. 24
- Project Dispatch: Strategies for Promoting Patient- and Family-Centered Care in the ICU P. 18
- What Is a Full-Time Equivalent in the ICU: Who Should Work There and How Much? P. 17

▲ CARDIOVASCULAR AND RESUSCITATION

- Bench-Pressing in the ICU: Which Vasopressor Agent Should I Choose for My Patient? P. 18
- How to Build a Successful Extracorporeal Membrane Oxygenation Program in Your Institution P. 19
- Monitoring Resuscitation P. 25
- Optimizing Post-Cardiac Arrest Care P. 21
- Pro/Con Debates: Fluid - Friend or Foe? Oxygen – Too Much or Not Enough? (ACCM Town Hall) P. 22

▲ ENDOCRINE/RENAL

- De-resuscitation: Reversal When the Fluid Comes Back P. 17
- It's Hot: Not Every Fever an Infection? P. 23
- Nephrotoxic Injury Negated by Just-in-Time Action (NINJA) in the ICU: Novel Strategies for the Prevention of Drug-Associated Acute Kidney Injury P. 20
- Secretagogues, Hormones and Uncoupling in Chronic Critical Illness: Science and Therapy P. 21
- Why Is There So Much Acute Kidney Injury? P. 24

▲ ETHICS/END OF LIFE

- Shared Decision Making and Decision Analysis in the ICU P. 22
- When Expectations and Desires Meet Reality: Guiding Surrogates Through Critical Illness P. 17

▲ GI/NUTRITION

- Advancing Nutrition Therapies in the ICU P. 21
- Critical Care Issues in Hepatic Failure P. 16
- Nutrition Support in Special Populations P. 25

▲ HEMATOLOGY AND IMMUNOLOGY

- Are Blood Transfusions Necessary? P. 19
- Assessing and Reversing Coagulopathy P. 20
- Human Microbiome: A Driver of the Immune System P. 21
- Immunomodulation in the Critically Ill P. 25
- Therapeutic Apheresis in the Critical Care Unit P. 24

▲ INFECTIOUS DISEASE

- Aerosolized Antibiotics in the ICU: Where Do They Fit? P. 22
- The Difficult Task of Treating Multidrug-Resistant *Acinetobacter baumannii* P. 18
- Experimental Extracorporeal Therapies for the Treatment of Bloodstream Infections P. 22
- Response Research: What We Learned, or Should Learn, from Research Efforts During the Ebola Outbreak P. 25

▲ NEUROSCIENCE

- Acute Stroke in the ICU: New Methods of Rescue P. 20
- Controversies in Neurocritical Care P. 18
- Goal-Directed Hemodynamic Therapy in Acute Neurological Disorders P. 21
- The Goldilocks Dilemma: Electroencephalography Monitoring in the ICU P. 21
- Peering into the Crystal Ball: Updates on Neuroprognostication for Common ICU Situations P. 22
- Traumatic Brain and Spinal Injury: What's New? P. 20

▲ PEDIATRICS

- Approaches to Acute Brain Injury in Children P. 16
- Managing Comfort in the Pediatric ICU: Does Comfort Come at the Expense of Withdrawal or Delirium? P. 21
- Neurocognitive and Psychological Outcomes After Critical Illness in Childhood P. 25
- Pediatric Pulmonary Hypertension: The Changing Landscape P. 18
- Precision Pharmacodelivery in the Pediatric ICU: The Role of Kinetics Analysis and Modeling P. 19

▲ PHARMACOLOGY

- Ketamine Use in the ICU: Re-emergence of Special K P. 17
- Resuscitation Fluid Controversies P. 16
- This Is Jeopardy: Answers and Questions with Anticoagulant Reversal P. 24

▲ PLENARY

- Critical Care Air Transport: A Decade of Critical Care in the Air P. 18
- Fusing Clinical Care with Clinical Research: The Future of the Randomized Controlled Trial in a Self-Learning Healthcare System P. 16
- The Future of Critical Care Medicine P. 17
- Patient Experience in a Value-Based World P. 19
- Post-ICU Syndrome: Truth About Consequences, Right Care, Right Now... and Later P. 21
- Treating Lethal Infectious Disease in the ICU P. 24
- Value-Based Medicine: Dollars and Sense P. 22

▲ PROFESSIONAL DEVELOPMENT

- Advanced GRADE: Making the Most of Guideline Development P. 17
- Become a Fellow of the American College of Critical Care Medicine (Non-CE Session) P. 22
- Beyond Procedural Simulation in Critical Care Fellowships (Fellowship Directors' Luncheon) P. 19
- Optimizing Twitter and Social Media in Critical Care P. 21
- Training the Next Generation of Critical Care Practitioners: State of the Critical Care Union P. 22
- Transitioning from Training to First Job: Oh Boy, I Wasn't Ready for This! P. 18

▲ PULMONARY

- Clinical Challenges in Mechanical Ventilation P. 24
- Clinician Pro/Con: Paralysis and Prone Positioning in Acute Respiratory Distress Syndrome P. 19
- Critical Care and Emergency Research Networks P. 16
- Inhaled Therapies in the ICU P. 23
- Mechanical Ventilation: Physiology in Action P. 22
- Update on the PETAL Network: Prevention and Early Management of Acute Lung Injury P. 23

▲ QUALITY AND PATIENT SAFETY

- ABCDEF Bundle Improvement Collaborative: Is the Sum Greater Than the Parts? P. 20
- The Agency for Healthcare Research and Quality's National Implementation of Comprehensive Unit-Based Safety Program (CUSP) to Reduce Catheter-Associated Urinary Tract Infection (CAUTI) P. 19
- Creating Your Own Simulation Curriculum (Critical Care Societies Collaborative Session) P. 16
- No Good Deed Goes Unpunished: The Pros and Cons of Pay for Performance P. 20
- THRIVE: Supporting Survivors After Critical Illness P. 16
- Towards Value-Based Critical Care: Aligning Financial Incentives to Improve Delivery P. 23
- Unleashing the Power of Big Data: Leveraging Existing Clinical Data in Critical Care Research P. 25

▲ SEPSIS

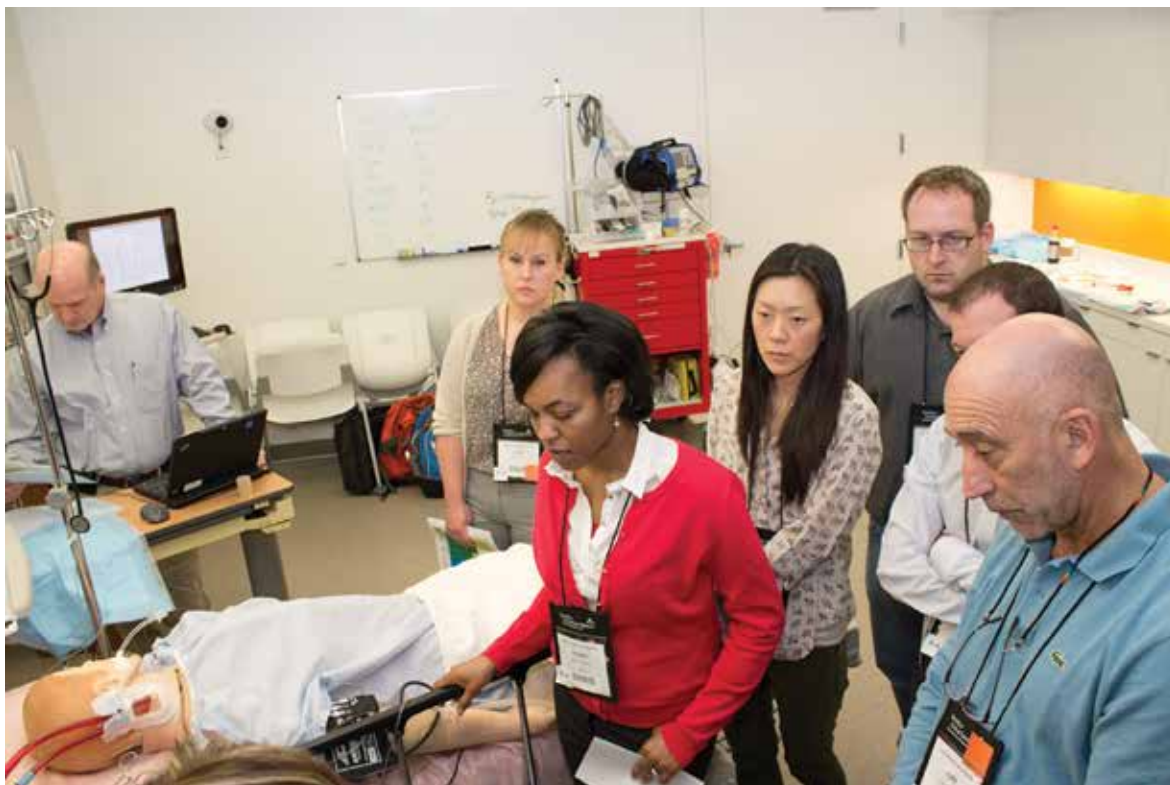
- Divergent Views of Personalized Medicine in Critical Illness P. 23
- Early Interventions in Sepsis Management: Where Are We After EGDT, ProCESS, ARISE? P. 20
- Favorable Outcomes: Overcoming Obstacles in Recognizing and Treating Severe Sepsis P. 25
- SCCM Research Spotlight: Vision Grant and Distinguished Investigator Updates P. 23
- Sepsis in the Elderly P. 19
- Sepsis Redefined (Joint SCCM/ESICM Session) P. 19
- Surviving Sepsis Campaign: Screening Every Patient, Every Shift, Everyday – Sepsis on the Wards P. 22

▲ SURGERY AND TRAUMA

- I Don't Need a Stinking Operating Room: Safety of Surgery at the Bedside P. 19
- Lessons Learned in Iraq and Afghanistan: What Should Be Applied to Civilian Trauma Practice? P. 18
- Management of the Acute Care Surgical Patient P. 25
- So You Think You're Smarter Than a Fellow P. 20

▲ YEAR IN REVIEW

- Year in Review: Anesthesiology P. 23
- Year in Review: Clinical Pharmacology and Pharmacy P. 20
- Year in Review: Emergency Medicine P. 23
- Year in Review: Internal Medicine P. 23
- Year in Review: Neuroscience P. 23
- Year in Review: Nursing P. 23
- Year in Review: Pediatrics P. 23
- Year in Review: Research P. 20
- Year in Review: Surgery P. 20



FRIDAY, FEBRUARY 19, 2016

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Advances in Veterinary Critical Care - Day 1: Cardiology in the Critical Patient (see page 13 for Day 2)

Moderator: Benjamin Brainard

LEARNING OBJECTIVES

- Review the use of echocardiography to evaluate cardiac function and volume status in the critical veterinary patient
- Discuss novel therapies for treatment of congestive heart failure and cardiac arrhythmias
- Examine the diagnostic and therapeutic approach for pulmonary hypertension in veterinary species
- Recognize the utility of advanced imaging modalities (eg, magnetic resonance imaging) for assessment of cardiac function in veterinary species

8:00 a.m. - 8:45 a.m.

- > Canine Heart Disease: Etiologies and Therapeutics
John E. Rush

8:45 a.m. - 9:30 a.m.

- > Critical Care Thoracic Ultrasound
Teresa C. DeFrancesco

9:30 a.m. - 10:15 a.m.

- > Echocardiography in the ER and ICU
Teresa C. DeFrancesco

10:15 a.m. - 10:30 a.m.

> Break

10:30 a.m. - 11:15 a.m.

- > Pulmonary Hypertension: Diagnosis and Management
John E. Rush

11:15 a.m. - 12:00 p.m.

- > Cardiac Biomarkers: Proper Use in the ER and ICU
Teresa C. DeFrancesco

12:00 p.m. - 1:00 p.m.

> Lunch

1:00 p.m. - 1:45 p.m.

- > Feline Heart Disease: Etiologies and Therapeutics
Teresa C. DeFrancesco

1:45 p.m. - 2:30 p.m.

- > ER Arrhythmias: Which Ones Are Killers?
John E. Rush

2:30 p.m. - 3:15 p.m.

- > Fulminant Heart Failure: Strategies for When Lasix Isn't Enough
John E. Rush

3:15 p.m. - 3:30 p.m.

> Break

3:30 p.m. - 4:15 p.m.

- > Cardiology Case Files: The Dyspneic and the Syncopal
John E. Rush, Elizabeth Rozanski

4:15 p.m. - 5:00 p.m.

- > IVECCS 2015: Abstracts in Review
Linda J. Barton

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Current Concepts in Adult Critical Care - Day 1 (see page 13 for Day 2)

Moderators: Edward Bittner, Jennifer LaRosa

LEARNING OBJECTIVES

- Discuss updates on diagnostic and treatment options in critical illness
- Debate controversial topics
- Examine patient safety and quality improvement initiatives in the ICU

8:00 a.m. - 8:45 a.m.

- > Current Concepts and Controversies in Hemodynamic Monitoring
Paul E. Marik

8:45 a.m. - 9:30 a.m.

- > Novel Ventilation Strategies
Neil R. MacIntyre

9:30 a.m. - 10:15 a.m.

- > Management of Burn-Injured Patients
Robert L. Sheridan

10:15 a.m. - 10:30 a.m.

> Break

10:30 a.m. - 11:15 a.m.

- > Decoding Patient Safety and Quality in the ICU
Jennifer A. LaRosa

11:15 a.m. - 12:00 p.m.

- > Early Recognition of Unusual Medication Emergencies and Drug Shortages
Mitchell J. Daley

12:00 p.m. - 1:00 p.m.

> Lunch

1:00 p.m. - 1:45 p.m.

- > Overall Hypothermia Update
Benjamin S. Abella

1:45 p.m. - 2:30 p.m.

- > Antibiotic Stewardship: Broad Versus Narrow Coverage
Christian Engell

2:30 p.m. - 3:15 p.m.

- > Current Concepts and Controversies in Nutrition
Daren K. Heyland

3:15 p.m. - 3:30 p.m.

> Break

3:30 p.m. - 4:15 p.m.

- > Update in Emergency Airway Management
Edward A. Bittner

4:15 p.m. - 5:00 p.m.

- > Update in Management of the Patient with Traumatic Brain Injury
Neeraj Badjatia

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Current Concepts in Pediatric Critical Care - Day 1 (see page 14 for Day 2)

Moderators: David Turner, James Killinger

LEARNING OBJECTIVES

- Discuss updates on diagnostic and treatment options in pediatric critical illness
- Debate controversial topics in pediatric critical care
- Examine patient safety and quality improvement and outcome in the pediatric ICU

8:00 a.m. - 8:35 a.m.

- > Delirium
Chani S. Traube

8:35 a.m. - 9:05 a.m.

- > Pharmacologic Optimization in Unique Circumstances
Jennifer L. Morris

9:05 a.m. - 9:40 a.m.

- > Procedural Sedation for the Pediatric Intensivist: An Update
Joseph D. Tobias

9:40 a.m. - 10:15 a.m.

- > Panel Discussion
Chani S. Traube, Jennifer L. Morris, Joseph D. Tobias

10:15 a.m. - 10:30 a.m.

> Break

10:30 a.m. - 11:05 a.m.

- > Noncardiac Disease in Patients with Congenital Heart Disease
Andrew T. Costarino

11:05 a.m. - 11:40 a.m.

- > What's New in Heart Failure Management?
Daphne Hsu

11:40 a.m. - 12:00 p.m.

- > Panel Discussion
Andrew T. Costarino, Daphne Hsu

12:00 p.m. - 1:00 p.m.

> Lunch

1:00 p.m. - 1:35 p.m.

- > Metabolic Emergencies in the Pediatric ICU
Kimberly A. Chapman

1:35 p.m. - 2:05 p.m.

- > Toxicology Emergencies in the Pediatric ICU
Michael Levine

2:05 p.m. - 2:40 p.m.

- > 10 Infectious Disease Diagnoses That Cannot Be Missed in the Pediatric ICU
Patrick Wilson

2:40 p.m. - 3:15 p.m.

- > Panel Discussion
Kimberly A. Chapman, Michael Levine, Patrick Wilson

3:15 p.m. - 3:30 p.m.

> Break

3:30 p.m. - 4:05 p.m.

- > Near-Fatal Asthma
Christopher Carroll

4:05 p.m. - 4:40 p.m.

- > Pro/Con Debate: Choice of Ventilator Mode in the Pediatric ICU Matters
John H. Arnold, Henry Michael Ushay

4:40 p.m. - 5:00 p.m.

- > Panel Discussion
Christopher Carroll, John H. Arnold, Henry Michael Ushay

FRIDAY, FEBRUARY 19



Schedule of Events

This schedule is subject to change. Visit www.sccm.org/congress for the most up-to-date schedule.

FRIDAY, FEBRUARY 19

8:00 A.M. - 5:30 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION **\$ T**

Critical Care Pharmacy Preparatory Review and Recertification Course - Day 1 (see page 15 for Day 2)

Moderator: Amy Dzierba

LEARNING OBJECTIVES

- Review disease states and therapeutics
- Provide a framework to prepare for the specialty certification examination in critical care pharmacy
- Develop thought processes needed to solve patient care problems in each topic

8:00 a.m. - 9:30 a.m.

- > Shock Syndromes and Sepsis
Ishaq Lat, Seth R. Bauer

9:30 a.m. - 10:15 a.m.

- > Supportive and Preventive Medicine
Amy L. Dzierba

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:30 a.m.

- > Practice Management: Medication Safety and Protocol Development
Lisa Hall Zimmerman, Henry Cohen

11:30 a.m. - 12:30 p.m.

- > Cardiovascular Critical Care
Erik E. Abel

12:30 p.m. - 1:30 p.m.

- > Lunch

1:30 p.m. - 3:00 p.m.

- > Fluids, Electrolytes, Acid-Base Disorders and Nutrition Support
Roland N. Dickerson

3:00 p.m. - 3:45 p.m.

- > Principles of Estimating Renal Clearance, Acute Kidney Injury, and Renal Replacement in the Critically Ill Patient
Michael L. Bentley

3:45 p.m. - 4:00 p.m.

- > Break

4:00 p.m. - 5:30 p.m.

- > Pulmonary Disorders
Ishaq Lat, Amy L. Dzierba

7:30 A.M. - 5:30 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION **\$ T**

Critical Care Ultrasound - Day 1

(see page 15 for Day 2)

Moderators: Mark P. Hamlin, Jose L. Diaz-Gomez

LEARNING OBJECTIVES

- Demonstrate a foundation of ultrasound knowledge
- Practice acquisition of high-quality images via hands-on exercises
- Demonstrate image interpretation and utilization of ultrasound as a diagnostic tool

7:30 a.m. - 7:45 a.m.

- > Welcome and Introduction

7:45 a.m. - 8:15 a.m.

- > Pretest

8:15 a.m. - 9:00 a.m.

- > Basic Physics and Knobology

9:00 a.m. - 9:45 a.m.

- > Basic Windows and Views

9:45 a.m. - 10:00 a.m.

- > Break

10:00 a.m. - 12:00 p.m.

- > Skill Stations
 1. Apical Views
 2. Parasternal Views
 3. Subcostal Views

12:00 p.m. - 1:00 p.m.

- > Lunch and Clinical Cases

1:00 p.m. - 1:30 p.m.

- > Basic Evaluation of Left Ventricular (LV) Function and Cardiac Output

1:30 p.m. - 2:00 p.m.

- > Evaluation of Pneumothorax, Pleural Effusions and Thoracentesis

2:00 p.m. - 2:30 p.m.

- > Vascular Ultrasound

2:30 p.m. - 2:45 p.m.

- > Break

2:45 p.m. - 4:45 p.m.

- > Skill Stations
 1. Lung: Pleural Effusions and Thoracentesis
 2. Vascular Ultrasound
 3. Left Ventricular Function

4:45 p.m. - 5:30 p.m.

- > Clinical Cases

8:45 A.M. - 7:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION **\$ T**

Critical Care Ultrasound Pediatric - Day 1 (see page 15 for Day 2)

Moderators: Thomas Conlon, Erik Su

LEARNING OBJECTIVES

- Demonstrate a foundation of ultrasound knowledge
- Practice acquisition of high-quality images via hands-on exercises
- Demonstrate image interpretation and utilization of ultrasound as a diagnostic tool

8:45 a.m. - 9:30 a.m.

- > Welcome and Pretest

9:30 a.m. - 10:15 a.m.

- > Knobology, Physics and Artifacts

10:15 a.m. - 10:45 a.m.

- > Focused Assessment with Sonography in Trauma (FAST)/ Abdominal Examination

10:45 a.m. - 11:30 a.m.

- > Vascular Access and Guided Procedures

11:30 a.m. - 12:30 p.m.

- > Lunch and Cases

12:30 p.m. - 2:30 p.m.

- > Skill Stations
 1. FAST/Abdomen
 2. Vascular Procedures
 3. Ultrasound Guided Procedures

2:30 p.m. - 2:45 p.m.

- > Break

2:45 p.m. - 3:30 p.m.

- > Evaluation of Pneumothorax, Effusions, and Diaphragm

3:30 p.m. - 4:15 p.m.

- > The Cardiac Examination

4:15 p.m. - 4:45 p.m.

- > Volume Assessment

4:45 p.m. - 5:00 p.m.

- > Break

5:00 p.m. - 7:00 p.m.

- > Skill Stations
 1. Apical Views
 2. Parasternal Views
 3. Subcostal Views



SATURDAY, FEBRUARY 20, 2016

8:00 A.M. - 12:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Advanced Practice Providers in the ICU: Finances and Productivity

Moderator: Rob Grabenkort, Marilyn Hravnak

LEARNING OBJECTIVES

- Develop approaches to assess the costs and revenue capture of advanced practice providers (APPs) in the ICU
- Improve knowledge of optimal billing practices with APP/intensivist teams
- Determine how relative-value units (RVUs) are applied and used to track issues APP/intensivist productivity.
- Evaluate productivity for non-revenue-producing personnel in the ICU
- Demonstrate synthesis of finance and productivity information through case study application

8:00 a.m. - 8:45 a.m.

- > Financial Aspects of APPs in the ICU: Balancing Costs and Revenues

Walter A. Boyle

8:45 a.m. - 9:30 a.m.

- > Who Bills for What? Delineating Billing Choices Within Scenarios

George A. Sample

9:30 a.m. - 10:15 a.m.

- > RVUs: What They Mean and How to Use Them to Leverage Productivity

David L. Carpenter

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:15 a.m.

- > Creation of a Productivity Tool for Non-Revenue Producers

Jacqueline Y. Steuer

11:15 a.m. - 12:00 p.m.

- > Interactive Financial Case Studies

Maureen A. Madden, Walter A. Boyle, George A. Sample, David L. Carpenter, Jacqueline Y. Steuer

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Adult Airway Management in the Critically Ill

Moderators: Daniel Diedrich, Gregory Kerr

LEARNING OBJECTIVES

- Describe the anatomy of the human airway
- Discuss how to manage an emergency airway
- Identify the medications used during airway management
- Review the new devices available for airway management and practice proper usage
- Perform percutaneous and surgical cricothyrotomy and practice proper technique

8:00 a.m. - 8:45 a.m.

- > Airway Anatomy

David W. Barbara

8:45 a.m. - 9:30 a.m.

- > Management of the Difficult Airway

John C. Klick

9:30 a.m. - 10:15 a.m.

- > Anatomic Surprises

Adam S. Evans

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:15 a.m.

- > Airway Devices You Should Know About

Shreyajit Kumar

11:15 a.m. - 12:00 p.m.

- > Pharmacologic Support: Sedation and Paralysis

Jonathan Hastie

12:00 p.m. - 1:00 p.m.

- > Lunch

1:00 p.m. - 1:30 p.m.

- > Skill Station: Direct Laryngoscopy

Gregory E. Kerr, Jonathan Hastie

1:30 p.m. - 2:00 p.m.

- > Skill Station: King Airway Insertion and Removal

Nathan J. Smischney

2:00 p.m. - 2:30 p.m.

Continued ➔

Adult Airway Management..., Continued

- > Skill Station: Video Laryngoscopy Non-Channeled Devices

Shreyajit Kumar

2:30 p.m. - 3:00 p.m.

- > Skill Station: Video Laryngoscopy Channeled Devices

John C. Klick

3:00 p.m. - 3:30 p.m.

- > Break

3:30 p.m. - 4:00 p.m.

- > Skill Station: Percutaneous Cricothyrotomy

Adam S. Evans

4:00 p.m. - 4:30 p.m.

- > Skill Station: Surgical Cricothyrotomy

Daniel A. Diedrich, David W. Barbara

4:30 p.m. - 5:00 p.m.

- > Wrap-Up with Questions and Answers

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Advances in Veterinary Critical Care - Day 2: Analgesia and Anesthesia for the Critical Patient

(see page 11 for Day 1)

Moderator: Benjamin Brainard

LEARNING OBJECTIVES

- Review the nociceptive pathways that are important in pain and pain processing
- Discuss the physiologic and immunologic effects of uncontrolled pain
- Describe the indications and precautions for using new veterinary analgesic and anesthetic drugs
- Recognize the application of medications to decrease and manage anxiety in the veterinary ER and ICU

8:00 a.m. - 8:45 a.m.

- > Safe Handling and Sedation of the Aggressive Patient

Benjamin Brainard

8:45 a.m. - 9:30 a.m.

- > Anesthesia of the Critically Ill: Patient Assessment and Anesthetic Induction

Jane Quandt

9:30 a.m. - 10:15 a.m.

- > Anesthesia of the Critically Ill: Maintenance and Support

Jane Quandt

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:15 a.m.

- > Anesthetics for Maintenance of Long-Term Ventilation

Benjamin Brainard

11:15 a.m. - 12:00 p.m.

- > Anesthesia for the Patient with Respiratory Disease

Benjamin Brainard

12:00 p.m. - 1:00 p.m.

- > Lunch

1:00 p.m. - 1:45 p.m.

- > Recognition and Management of Dysphoria in the ICU Setting

Jane Quandt

1:45 p.m. - 2:30 p.m.

- > Nociceptive Pathways and Pain Sensation

Benjamin Brainard

2:30 p.m. - 3:15 p.m.

- > Fluids During Anesthesia: How Much, What Type?

Jane Quandt

3:15 p.m. - 3:30 p.m.

- > Break

3:30 p.m. - 5:00 p.m.

- > ACVECC Mock Exam

Benjamin Brainard

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Current Concepts in Adult Critical Care - Day 2

(see page 11 for Day 1)

Moderators: Edward Bittner, Jennifer LaRosa

LEARNING OBJECTIVES

- Discuss updates on diagnostic and treatment options in critical illness
- Debate controversial topics
- Examine patient safety and quality improvement initiatives in the ICU

8:00 a.m. - 8:45 a.m.

- > Fluid Management in the Critically Ill: Changing Paradigms

Michael J. Connor

8:45 a.m. - 9:30 a.m.

- > Envisioning the Future Critical Care Practice

Timothy G. Buchman

9:30 a.m. - 10:15 a.m.

- > Knowing When You're Over Your Head: Considerations for Community Critical Care Practitioners and the Role of Telemedicine

Corey Scurlock

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:15 a.m.

- > Advanced Cardiopulmonary Life Support Controversies

Michael F. O'Connor

11:15 a.m. - 12:00 p.m.

- > Best Rounding Practices in the ICU

Henry T. Stelfox

12:00 p.m. - 1:00 p.m.

- > Lunch

1:00 p.m. - 1:45 p.m.

- > Emerging Infectious Diseases

Jorge Luis Hidalgo

1:45 p.m. - 2:30 p.m.

- > Attorney Case Discussion

James Szalados

2:30 p.m. - 3:15 p.m.

- > Seamless Transitions

Steven Greenberg

3:15 p.m. - 3:30 p.m.

- > Break

3:30 p.m. - 4:15 p.m.

- > Post-ICU Syndrome

Michele C. Balas

4:15 p.m. - 5:00 p.m.

- > Toxicology: New and Emerging Threats

Steven Seifert

SATURDAY, FEBRUARY 20



Schedule of Events

This schedule is subject to change. Visit www.sccm.org/congress for the most up-to-date schedule.

SATURDAY, FEBRUARY 20

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION \$ T

Current Concepts in Pediatric Critical Care – Day 2 (see page 11 for Day 1)

Moderator: James Killinger, David Turner

LEARNING OBJECTIVES

- Discuss updates on diagnostic and treatment options in pediatric critical illness
- Debate controversial topics in pediatric critical care
- Examine patient safety and quality improvement and outcome in the pediatric ICU

8:00 a.m. - 8:35 a.m.

- > Quality and Safety: Are We Using the Correct Metrics? Derek S. Wheeler

8:35 a.m. - 9:05 a.m.

- > The Growing Role of Advanced Practice Providers in the Pediatric ICU Remi Hueckel, James Killinger

9:05 a.m. - 9:40 a.m.

- > The Changing Landscape of Education in the Pediatric ICU David A. Turner

9:40 a.m. - 10:15 a.m.

- > Panel Discussion Derek S. Wheeler, Remi Hueckel, James Killinger, David A. Turner

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:05 a.m.

- > Inflammatory Disorders of the Brain in the Pediatric ICU Michael J. Bell

11:05 a.m. - 11:40 a.m.

- > What's New in the Management of Hepatic Failure Ayse A. Arikan

11:40 a.m. - 12:00 p.m.

- > Panel Discussion Michael J. Bell, Ayse A. Arikan

12:00 p.m. - 1:00 p.m.

- > Lunch

1:00 p.m. - 1:35 p.m.

- > The Care of Adult Patients in the Pediatric ICU Jeffrey Edwards

1:35 p.m. - 2:05 p.m.

- > The Growing Issue of Managing Chronic Illness in Pediatric Critical Care Robert J. Graham

2:05 p.m. - 2:45 p.m.

- > Pro/Con Debate: Early Tracheostomy in the Pediatric ICU Ana Lia Graciano, Christopher W. Mastropietro

2:45 p.m. - 3:15 p.m.

- > Panel Discussion Jeffrey Edwards, Robert J. Graham, Ana Lia Graciano, Christopher W. Mastropietro

3:15 p.m. - 3:30 p.m.

- > Break

3:30 p.m. - 4:05 p.m.

- > What's New in Trauma? Jeffery S. Upperman

4:05 p.m. - 4:40 p.m.

- > What's New in Traumatic Brain Injury? Patrick M. Kochanek

4:40 p.m. - 5:00 p.m.

- > Panel Discussion Jeffery S. Upperman, Patrick M. Kochanek

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION \$ T

Fundamentals Faculty Academy

Moderator: Gregory Botz

LEARNING OBJECTIVES

- Discuss how to integrate lectures into skill stations for each Fundamentals course
- Apply case studies to different education models
- Practice the skills needed to provide an improved learner experience

8:00 a.m. - 8:20 a.m.

- > Welcome and Introduction Dennis E. Amundson

8:20 a.m. - 8:40 a.m.

- > Principles of Adult Learning Dennis E. Amundson

8:40 a.m. - 9:00 a.m.

- > Fundamental Critical Care Support Overview Keith Killu

9:00 a.m. - 9:20 a.m.

- > Pediatric Fundamental Critical Care Support Overview Karl L. Serrao

9:20 a.m. - 9:40 a.m.

- > Fundamental Disaster Management Overview Mary J. Reed

9:40 a.m. - 9:55 a.m.

- > Break

9:55 a.m. - 10:15 a.m.

- > Case Study: Introduction Babak Sarani

10:15 a.m. - 10:35 a.m.

- > Case Study 1: Small Institution Model Babak Sarani

10:35 a.m. - 10:55 a.m.

- > Case Study 2: Online Learning Model Michael D. Christian

10:55 a.m. - 11:15 a.m.

- > Case Study 3: Large Institution Model Mohan R. Mysore

11:15 a.m. - 11:35 a.m.

- > Case Study 4: Integrated Education Model Ayan Sen

11:35 a.m. - 12:30 p.m.

- > Lunch - The Mechanics of Running a Course: The Value in Training Michele C. Papo

12:30 p.m. - 1:00 p.m.

- > Simulation in Learning Gregory H. Botz

1:00 p.m. - 1:45 p.m.

- > Skill Station Demonstration Keith Killu, Babak Sarani, Karl L. Serrao, Mohan R. Mysore, Michael D. Christian, Dennis E. Amundson

1:45 p.m. - 2:30 p.m.

- > Skill Station Demonstration Keith Killu, Babak Sarani, Karl L. Serrao, Mohan R. Mysore, Michael D. Christian, Dennis E. Amundson

2:30 p.m. - 2:45 p.m.

- > Break

2:45 p.m. - 3:30 p.m.

- > Skill Station Demonstration Keith Killu, Gregory H. Botz, Michele C. Papo, Karl L. Serrao, Mohan R. Mysore, Mary J. Reed

3:30 p.m. - 4:15 p.m.

- > Skill Station Demonstration Keith Killu, Gregory H. Botz, Michele C. Papo, Karl L. Serrao, Mohan R. Mysore, Mary J. Reed

4:15 p.m. - 4:35 p.m.

- > Conversing with the Experts: Panel Discussion Dennis E. Amundson, Keith Killu, Karl L. Serrao, Mary J. Reed, Babak Sarani, Michael D. Christian, Mohan R. Mysore, Ayan Sen, Michele C. Papo, Gregory H. Botz

4:35 p.m. - 5:00 p.m.

- > Wrap-Up and Course Evaluation

8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION \$ T

Hemodynamic Monitoring: From Cardiovascular Physiology to Applied Intensive Care Medicine

Moderators: Jean-Louis Teboul, Michael Pinsky

LEARNING OBJECTIVES

- Discuss basic principles of cardiovascular physiology
- Review current technologies of ICU cardiovascular monitoring
- Participate in virtual bedside case study scenarios

8:00 a.m. - 8:15 a.m.

- > Introduction Michael R. Pinsky

8:15 a.m. - 8:45 a.m.

- > Vascular Pressure Monitoring: Applications and Pitfalls R. Phillip Dellinger

8:45 a.m. - 9:15 a.m.

- > Indicator Dilution-Derived Cardiac Output and Advanced Analytic Variables Jean-Louis Teboul

9:15 a.m. - 9:45 a.m.

- > Cardiac Output by Arterial Pressure Waveform Analysis Greg S. Martin

9:45 a.m. - 10:15 a.m.

- > Noninvasive Measures of Arterial Pressure and Cardiac Output Maxime Cannesson

10:15 a.m. - 10:30 a.m.

- > Break

10:30 a.m. - 11:15 a.m.

- > Ultrasound-Based Hemodynamic Monitoring Colin K. Grissom

11:15 a.m. - 12:00 p.m.

- > Functional Hemodynamic Monitoring Michael R. Pinsky

12:00 p.m. - 1:00 p.m.

- > Lunch

1:00 p.m. - 4:30 p.m.

- > Case-Based Demonstration: Acute Respiratory Distress Syndrome Greg S. Martin, Maxime Cannesson

1:00 p.m. - 4:30 p.m.

- > Case-Based Demonstration: Cardiogenic Shock R. Phillip Dellinger, Colin K. Grissom

1:00 p.m. - 4:30 p.m.

- > Case-Based Demonstrations: Septic Shock Michael R. Pinsky, Jean-Louis Teboul

3:15 p.m. - 3:30 p.m.

- > Break

4:30 p.m. - 5:00 p.m.

- > Wrap-Up with Questions and Answers



8:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Mechanical Ventilation: Strategies and Implementation

Moderators: Richard Oeckler, Steven Holets

LEARNING OBJECTIVES

- Discuss technological advancements in mechanical ventilators
- Explain common problems related to patient ventilator interaction
- Apply current mechanical ventilation strategies

8:00 a.m. - 8:45 a.m.

> What Is Safe Mechanical Ventilation?

Rolf D. Hubmayr, MD

8:45 a.m. - 9:30 a.m.

> How Should We Set Positive End-Expiratory Pressure (PEEP)?

Dean Hess

9:30 a.m. - 10:15 a.m.

> Refractory Hypoxemia: What Now?

John J. Marini

10:15 a.m. - 10:30 a.m.

> Break

10:30 a.m. - 11:15 a.m.

> Patient Ventilator Asynchrony: Is There an Elephant in the Room?

David A. Kaufman

11:15 a.m. - 12:00 p.m.

> Noninvasive Ventilatory Support

Bernardo J. Selim

12:00 p.m. - 1:00 p.m.

> Lunch

1:00 p.m. - 1:45 p.m.

> Hands-On Workshop: Monitoring the Lung - Respiratory Mechanics and Safe Ventilation

Rolf D. Hubmayr

1:45 p.m. - 2:30 p.m.

> Hands-On Workshop: Open Lung Strategies - Setting PEEP

Dean Hess

2:30 p.m. - 3:15 p.m.

> Hands-On Workshop: Ventilator Asynchrony - Recognition and Solutions

David A. Kaufman

3:15 p.m. - 3:30 p.m.

> Break

3:30 p.m. - 4:15 p.m.

> Hands-On Workshop: Noninvasive Ventilatory Support

John J. Marini

4:15 p.m. - 5:00 p.m.

> Hands-On Workshop: Noninvasive Ventilatory Support - Modes, Interfaces, Adjuncts

Bernardo J. Selim

8:00 A.M. - 5:30 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Critical Care Pharmacy Preparatory Review and Recertification Course - Day 2 (see page 12 for Day 1)

Moderator: Simon Lam

LEARNING OBJECTIVES

- Review disease states and therapeutics
- Provide a framework to prepare for the specialty certification examination in critical care pharmacy
- Develop thought processes needed to solve patient care problems in each topic

8:00 a.m. - 9:30 a.m.

> Neurocritical Care

Gretchen M. Brophy, Aaron M. Cook

9:30 a.m. - 10:30 a.m.

> Sedation, Pain, Analgesia, Delirium, and Neuromuscular Blockers

Kimberly Varney Gill

10:30 a.m. - 10:45 a.m.

> Break

10:45 a.m. - 11:45 a.m.

> Research Design and Literature Evaluation

Ishaq Lat

11:45 a.m. - 12:45 p.m.

> Acute Cardiac Care

Scott T. Benken

12:45 p.m. - 1:45 p.m.

> Lunch

1:45 p.m. - 2:30 p.m.

> Hepatic Failure/Gastrointestinal/Endocrine Emergencies

Seth R. Bauer

2:30 p.m. - 3:15 p.m.

> Toxicology

Steven E. Pass

3:15 p.m. - 3:30 p.m.

> Break

3:30 p.m. - 4:30 p.m.

> Infectious Diseases I

Eric W. Mueller

4:30 p.m. - 5:30 p.m.

> Infectious Diseases II

Simon W. Lam

7:30 A.M. - 5:30 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Critical Care Ultrasound - Day 2

(see page 12 for Day 1)

Moderators: Mark P. Hamlin, Jose L. Diaz-Gomez

LEARNING OBJECTIVES

- Demonstrate a foundation of ultrasound knowledge
- Practice acquisition of high-quality images via hands-on exercises
- Demonstrate image interpretation and utilization of ultrasound as a diagnostic tool

7:30 a.m. - 8:00 a.m.

> Focused Assessment with Sonography in Trauma (FAST) Examination

8:00 a.m. - 8:30 a.m.

> Basic Evaluation of Right Ventricular Function

8:30 a.m. - 9:00 a.m.

> Pulmonary Embolism: Diagnosis and Physiology

9:00 a.m. - 9:30 a.m.

> Intravascular Volume Assessment

9:30 a.m. - 9:45 a.m.

> Break

Continued ↗

Critical Care Ultrasound - Day 2, Continued

9:45 a.m. - 11:45 a.m.

> Skill Stations

1. FAST Examination
2. Cardiac Output
3. Volume Assessment

11:45 a.m. - 12:45 p.m.

> Lunch and Clinical Cases

12:45 p.m. - 1:15 p.m.

> Tamponade: Diagnosis and Physiology

1:15 p.m. - 1:55 p.m.

> Echocardiographic Approach to Shock

1:55 p.m. - 2:10 p.m.

> Break

2:10 p.m. - 4:10 p.m.

> Skill Stations

1. Tamponade Evaluation
2. Focused Assessed Transthoracic Echo (FATE) Examination
3. Ask the Expert

4:10 p.m. - 4:45 p.m.

> Posttest

4:45 p.m. - 5:30 p.m.

> Clinical Cases

7:00 A.M. - 5:00 P.M.

• PRE-CONGRESS EDUCATIONAL SESSION Ⓢ Ⓣ

Critical Care Ultrasound Pediatric - Day 2 (see page 12 for Day 1)

Moderators: Thomas Conlon, Erik Su

LEARNING OBJECTIVES

- Demonstrate a foundation of ultrasound knowledge
- Practice acquisition of high-quality images via hands-on exercises
- Demonstrate image interpretation and utilization of ultrasound as a diagnostic tool

7:00 a.m. - 7:30 a.m.

> Welcome and Review/Q&A

7:30 a.m. - 9:30 a.m.

> Skill Stations

1. Lung
2. Volume Status
3. Ask an Expert

9:45 a.m. - 10:15 a.m.

> Left Ventricular Function

10:15 a.m. - 10:45 a.m.

> Right Ventricular Function

10:45 a.m. - 11:15 a.m.

> Approach to Shock and Tamponade

11:15 a.m. - 12:15 p.m.

> Lunch and Cases

12:15 p.m. - 2:15 p.m.

> Skill Stations

1. Putting It Together: Shock
2. Ventricular Function
3. Ask an Expert

2:15 pm - 2:30 p.m.

> Break

2:30 p.m. - 3:00 p.m.

> Administration

3:00 p.m. - 3:30 p.m.

> Posttest

3:30 p.m. - 4:00 p.m.

> Bedside Ultrasound: Moving Forward

4:00 p.m. - 5:00 p.m.

> Panel Discussion and Closing Remarks



Schedule of Events

This schedule is subject to change. Visit www.sccm.org/congress for the most up-to-date schedule.

SUNDAY, FEBRUARY 21, 2016

8:00 A.M. - 9:30 A.M.

• OPENING SESSION

Welcome

2016 Presidential Address



Todd Dorman, MD, FCCM
Senior Associate Dean for Education
Coordination
Associate Dean Continuing Medical
Education
Professor & Vice Chair for Critical Care
Department of Anesthesiology & Critical
Care Medicine
Joint Appointments in Medicine,
Surgery and the School of Nursing
Johns Hopkins University School of
Medicine
Baltimore, Maryland, USA

PLENARY SESSION

Fusing Clinical Care with Clinical Research: The Future of the Randomized Control Trial in a Self-Learning Healthcare System



Derek C. Angus, MD, MPH, FRCP, MCCM
Chair, Department of Critical Care
Medicine,
Distinguished Professor and Mitchell P.
Fink Endowed Chair,
Department of Critical Care Medicine,
University of Pittsburgh and
University of Pittsburgh Medical Center
Health System
Pittsburgh, Pennsylvania, USA

LEARNING OBJECTIVES

- Examine the challenges of developing a single versus multicenter trial
- Define the controversy between adopting single versus multicenter trial results into practice
- Justify cultural clinical change based on single versus multicenter trial results to your own ICU providers

9:00 A.M. - 3:45 P.M.

Exhibit and Poster Hall Open

9:30 A.M. - 10:30 A.M.

Break

10:30 A.M. - 11:30 A.M.

Coding: What You See Is What You Get

Moderator: George Sample

LEARNING OBJECTIVES

- Describe International Classification of Diseases and Related Health Problems, 10th revision (ICD-10) taxonomy and the impact on critical care documentation
- Identify shared billing issues pertaining to advanced practice providers and physicians
- Demonstrate the habits of a fiscally responsible ICU director
- ICD-10
Frances Britton
- Billing with Advanced Practice Providers
David L. Carpenter
- Financial Audit Prophylaxis
Walter A. Boyle

10:30 A.M. - 11:30 A.M.

Resuscitation Fluid Controversies

Moderator: Djillali Annane

LEARNING OBJECTIVES

- Discuss advantages and disadvantages of using saline solutions for resuscitation
- Review advantages and disadvantages of albumin use
- Describe the impact of starches on resuscitation
- Saline: Salt Brines Are for Turkeys
Sean M. Bagshaw
- Albumin: Has Anything Changed Since the SAFE Study?
Susan E. Hamblin
- Starches: Have We Given Up Too Soon?
Djillali Annane

10:30 A.M. - 12:30 P.M.

Approaches to Acute Brain Injury in Children

Moderator: Stuart Friess

LEARNING OBJECTIVES

- Identify approaches to implement pathways to prevent secondary insults in the pediatric ICU
- Review current approaches in the management of acute brain injury in children after cardiac arrest
- Describe the approach to the acute management of pediatric stroke
- Discuss current approaches and benefits to electroencephalographic (EEG) monitoring in the pediatric ICU
- Predict possible applications for intracranial monitoring beyond traumatic brain injury
- Improving Secondary Injury Detection and Prevention After Severe Traumatic Brain Injury
Patrick M. Kochanek
- Return of Spontaneous Circulation Is Just the Beginning: Post-Arrest Care to Minimize Secondary Brain Injury
Alexis Ann Topjian
- Pediatric Stroke Management in the ICU
Katrina Peariso
- Is EEG Monitoring a Neuroprotective Strategy?
Nicholas Abend
- Intracranial Monitoring Beyond Traumatic Brain Injury
Stuart Friess

10:30 A.M. - 12:30 P.M.

• CRITICAL CARE SOCIETIES COLLABORATIVE JOINT SESSION

Building Critical Care Competencies through Simulation Training

Moderator: Craig Coopersmith

LEARNING OBJECTIVES

- Understand complex curriculum development that tests knowledge while it also trains clinical and nonclinical skills concurrently
- Review how to use your simulators to teach needed competencies to critical care providers, trainees and active faculty
- Identify how to integrate institutional quality improvement projects with simulation findings
- Creating Critical Care Competencies Using Simulation Scenarios
Michael A. Pisa
- Creating a Teaching Template Emphasizing Critical Care Competencies
Jose L. Pascual
- Simulation Center Versus In Situ Simulations
Erin K. Hennessey
- The Post-Simulation Debrief: More Important Than the Simulation?
Tensing Maa
- Using an Institutional Safety Reporting System to Operationalize Findings During Simulations
J. Christopher Farmer

10:30 A.M. - 12:30 P.M.

Critical Care and Emergency Care Research Networks

Moderator: Greg Martin

LEARNING OBJECTIVES

- Review current research priorities, projects and programs in each consortium
- Discuss the research data obtained
- Explore the impact of the specific research at the bedside
- The Office of Emergency Care Research
Jeremy J. Brown
- ARDSnet and PETAL
Roy G. Brower
- The Canadian Critical Care Trials Network
Deborah J. Cook
- Collaborative Pediatric Critical Care Research Network
Robert F. Tamburro
- Conversing with the Experts: Panel Discussion
Jeremy J. Brown, Deborah J. Cook, Roy G. Brower, Robert F. Tamburro

10:30 A.M. - 12:30 P.M.

Critical Care Issues in Hepatic Failure

Moderator: Rahul Nanchal

LEARNING OBJECTIVES

- Summarize both acute liver failure (ALF) and acute-on-chronic liver failure (ACLF)
- Describe current advances in extracorporeal liver support for ALF and ACLF
- Outline strategies for the prevention and treatment of infections in ALF and ACLF
- Management of Hepatic Encephalopathy in ALF and ACLF
David J. Kramer
- Coagulation Disorders in ALF and ACLF
Constantine Karvellas
- Advances in Extracorporeal Liver Support for Hepatic Failure
Ram Subramanian
- Renal Dysfunction in Hepatic Failure
Kai Singbartl
- Infectious Complications in ALF and ACLF
Jody C. Olson
- Conversing with the Experts: Panel Discussion
David J. Kramer, Constantine Karvellas, Ram Subramanian, Kai Singbartl, Jody C. Olson

10:30 A.M. - 12:30 P.M.

THRIVE: Supporting Survivors After Critical Illness

Moderators: Mark Mikkelsen, Carol Thompson

LEARNING OBJECTIVES

- Describe recovery after critical illness and how we as a community can promote a culture of resilience
- Review the experiences of survivors of critical illness
- Examine the evidence for ICU follow-up clinics
- Contrast the adult experience with the pediatric experience for transitions in care after critical illness
- Detail the accomplishments and objectives of the THRIVE Task Force
- Why We Need THRIVE
Theodore J. Iwashyna
- The Survivors' Perspective and Panel Discussion
Mark E. Mikkelsen
- Lost in Transition: The Evidence in Support of ICU Follow-Up Clinics
Hannah Wunsch
- Learning from Others: What We Can All Take from the Pediatric Experience
Neethi Pinto
- Models of In-Person Support: Panel Discussion
James C. Jackson
- THRIVE: Where We Are and Where We Are Going
Carol L. Thompson

10:30 A.M. - 12:30 P.M.

What Is a Full-Time Equivalent in the ICU? Who Should Work There and How Much?

Moderator: Jonathan Sevransky

LEARNING OBJECTIVES

- Review the United States critical care workforce
- Define different staffing models in the United States
- Describe the effect of telemedicine on ICU staffing patterns
- Compare the United States staffing models with international models
- > Burden of Critical Care: How Much Do We Work?
Stephen M. Pastores
- > Telemedicine as a Method to Staff ICUs
Craig M. Lilly
- > Staffing Our Critically Ill Patients
Nicholas S. Ward
- > The Role of Advanced Practice Providers in the ICU
Ruth M. Kleinpell
- > International Critical Care Staffing: Is It Different?
Jean-Louis Vincent

10:30 A.M. - 12:30 P.M.

When Expectations and Desires Meet Reality: Guiding Surrogates Through Critical Illness

Moderator: Daleen Penoyer

LEARNING OBJECTIVES

- Examine the expectations of surrogates of critically ill patients
- Review patient-centered outcomes in the short- and long-term after critical illness
- Detail clinicians' abilities to prognosticate what the future holds for the critically ill patient
- Learn how experts in the field guide surrogates through critical illness and navigate the uncertainty that exists when attempting to align expectations, desires and reality
- > What Critically Ill Patients and Their Surrogates Expect and Desire
Scott D. Halpern
- > What Patients Actually Experience in the Short and Long Terms
Maureen Harvey
- > How Well Do Critical Care Providers Prognosticate?
David W. Crippen
- > How Do We Support and Assist Surrogates When None of this Aligns?
TBD
- > Panel Discussion: Guiding Surrogates Through Critical Illness

11:30 A.M. - 12:30 P.M.

De-resuscitation: Reversal When the Fluid Comes Back

Moderator: Azra Bihorac

LEARNING OBJECTIVES

- Characterize the science of fluid loading and compartmental shifting in critical illness
- Review therapies for intravascular volume removal
- Employ methods for fluid mobilization in the wake of resuscitation to prevent morbidity
- > Pathophysiology of Volume Excess: From Mobilization to Therapy
Patrick J. Neligan
- > Extracorporeal Therapies
Kianoush Banaei-Kashani
- > Diuresis in Deresuscitation
Michael L. Bentley

11:30 A.M. - 12:30 P.M.

Ketamine Use in the ICU: Re-Emergence of Special K

Moderator: Bryce Robinson

LEARNING OBJECTIVES

- Introduce ketamine as an agent for status epilepticus
- Discuss the use of ketamine for operative sedation and postoperative pain control
- Examine the use of ketamine for ICU sedation
- > Antiepileptic Uses of Ketamine
Hira Shafeeq
- > Ketamine for Perioperative Sedation and Analgesia
Bryce Robinson
- > Pros and Cons of Ketamine Use for ICU Sedation
Chris A. Droege

1:00 P.M. - 1:30 P.M.

Abstract Award Ceremony

2:00 P.M. - 2:45 P.M.

- PLENARY SESSION
- LIFETIME ACHIEVEMENT AWARD WINNER



The Future of Critical Care Medicine



Jean-Louis Vincent, MD, PhD, FCCM

Professor of Intensive Care Medicine
Université Libre de Bruxelles
Head, Department of Intensive Care
Erasmus University Hospital
Brussels, Belgium

LEARNING OBJECTIVES

- Understand how personalized medicine will allow us to individualize therapies
- Discuss how to organize the workforce and encourage staff commitment to the specialty
- Envision how modern technology will impact on critical care practice

2:45 P.M. - 3:45 P.M.

Break

3:45 P.M. - 5:45 P.M.

Advanced GRADE: Making the Most of Guideline Development

Moderator: Mark Nunnally

LEARNING OBJECTIVES

- Apply the Grades of Recommendation Assessment, Development and Evaluation (GRADE) approach to a variety of levels of evidence
- Organize data using the GRADE Guideline Development Tool
- Discuss common problems when applying GRADE to guideline development
- > GRADE Challenges: Commonly Encountered Conundra with the GRADE Process
Mark Edwin Nunnally
- > Application of GRADE: Case Reports
Waleed Alhazzani
- > GRADE and Beyond: Tools and Applications for the Guideline Development Process
Bram Rochweg

3:45 P.M. - 5:45 P.M.

Star Research Presentations

SUNDAY, FEBRUARY 21



Schedule of Events

This schedule is subject to change. Visit www.sccm.org/congress for the most up-to-date schedule.

MONDAY, FEBRUARY 22, 2016

6:00 A.M. - 8:00 AM

• BREAKFAST SYMPOSIA

Improving Clinical Outcomes and Pathogen Directed Therapy for Serious Bacterial Infections in the Critical Care Setting

Moderator: Marin Kollef

- > Epidemiology and Current Guidelines for Multidrug-resistant Bacterial Infections
Keith S. Kaye
- > Strategies for Implementing a Pathogen-directed Approach to Tailoring Therapies
Marin H. Kollef
- > New and Emerging Therapeutic Options for Treatment
Jason M. Pogue

8:15 A.M. - 9:00 A.M.

• PLENARY SESSION

• WILLIAM SHOEMAKER HONORARY LECTURE

Critical Care Air Transport: A Decade of Critical Care in the Air



Jay Johannigman, MD, FACS, FCCM

Professor of Surgery
Director of the Division of Trauma, Critical Care and Acute Care Surgery
United States Air Force Reserve
University of Cincinnati College of Medicine
Cincinnati, Ohio, USA

LEARNING OBJECTIVES

- Review the most common reasons for dying from wounds
- Understand the impact on physiology of hyperbaric conditions and aeromedical transport
- Discuss the role of aeromedical transport on future public health issues, war injuries and illness

9:00 A.M. - 10:00 A.M.

Break

9:00 A.M. - 3:15 P.M.

Exhibit and Poster Hall Open

10:00 A.M. - 11:00 A.M.

Benchpressing in the ICU: Which Vasopressor Agent Should I Choose for My Patient?

Moderator: Lakhmir Chawla

LEARNING OBJECTIVES

- Review the pharmacology of commonly used vasoactive regimens
- Analyze the role of protocol-managed strategies to attain cardiovascular end points
- Critique the evidence behind the order in which the agents are selected for patient care
- > Which Box Does Your Patient Fit In? The Method Behind the Madness
Gourang P. Patel
- > VASST: The Role of Drugs
Sean R. Townsend
- > Future Research
Lakhmir S. Chawla

10:00 A.M. - 11:00 A.M.

Lessons Learned in Iraq and Afghanistan: What Should Be Applied to Civilian Trauma Practice?

Moderator: Jay Johannigman

LEARNING OBJECTIVES

- Describe techniques of field care and volume resuscitation that can be applied to civilian trauma care
- List multidisciplinary damage control training needs optimal for general surgeons dealing with multisystem trauma in deployed, rural, or austere locations
- Describe at least three principles of long-distance medical evacuation for the critically injured patient
- Explain principles of successful rehabilitation of massively injured patients in the civilian setting
- > Blood and Blood Product Resuscitation
Martin A. Schreiber
- > Damage Control Resuscitation
John B. Holcomb
- > Conversing with the Experts: Panel Discussion
Martin A. Schreiber, John B. Holcomb

10:00 A.M. - 12:00 P.M.

Controversies in Neurocritical Care

Moderator: Kevin Sheth

LEARNING OBJECTIVES

- Contrast the utilities of hypertonic saline with mannitol in the setting of cerebral edema
- Discuss the advantages and disadvantages of anticonvulsant medications in seizure prophylaxis after acute brain injury
- Explore the evidence for decompressive hemicraniectomy for malignant MCA infarct
- > Hypertonic Saline: Pros
Thomas P. Bleck
- > Hypertonic Saline: Cons
Paul Alan Nyquist
- > Seizure Prophylaxis
Gretchen M. Brophy
- > Hemicraniectomy for Severe Brain Swelling Must Be Done
Alex B. Valadka
- > Hemicraniectomy for Severe Brain Swelling Should Not Be Done
Shelly D. Timmons
- > Conversing with the Experts: Panel Discussion
Thomas P. Bleck, Paul Alan Nyquist, Gretchen M. Brophy, Alex B. Valadka, Shelly D. Timmons

10:00 A.M. - 11:00 A.M.

Project Dispatch: Strategies for Promoting Patient- and Family-Centered Care in the ICU

Moderator: Ruth Kleinpell

LEARNING OBJECTIVES

- Discuss strategies for integrating patient- and family-centered care in the ICU
- Share the results from initiatives targeting patient- and family-centered care in the ICU
- Review opportunities for enhancing the ICU environment to be more centered on patients and families
- > Project Emerge: Focusing on Families in the ICU
Rhonda Wyskiel
- > Strategies for Promoting Patient- and Family-Centered Care in the ICU
Nneka O. Sederstrom
- > Reflections on the True Meaning of Patient-Centered ICU Care
David W. Crippen

10:00 A.M. - 12:00 P.M.

The Difficult Task of Treating Multidrug-Resistant *Acinetobacter baumannii*

Moderator: Ram Subramanian

LEARNING OBJECTIVES

- Evaluate the literature describing monotherapy versus combination therapy for the treatment of multidrug-resistant *Acinetobacter baumannii* (MDR-Ab)
- Discuss the optimal colistin dosing in patients with and without renal failure, based on research and its pharmacokinetic profile
- Compare and contrast current and emerging antibiotic pharmaceutical agents
- > Monotherapy Versus Combination Therapy: What Does the Evidence Support?
Mazen Kherallah
- > An Old Drug Revisited: The Role of Colistin
Lama Nazer
- > Emerging Antibiotic Treatments
Steven E. Pass

10:00 A.M. - 12:00 P.M.

In-Training Session: Transition from Training to First Job: Oh Boy! I Wasn't Ready for This!

Moderators: Utpal Bhalala, Elizabeth Hunt

LEARNING OBJECTIVES

- Discuss how to deliver bad news
- Identify how to deal with a difficult family
- Describe how to approach organ donation
- > Delivering Bad News: How Bad Could It Go?
Marc J. Popovich
- > Dealing With a Difficult Family: How Difficult Could It Be?
Vinay M. Nadkarni
- > Organ Donation: Not My Cup of Tea
Kristen Nelson

10:00 A.M. - 12:00 P.M.

New American College of Critical Care Medicine Guidelines

Moderator: Stephen Pastores

LEARNING OBJECTIVES

- Describe the new guidelines
- Outline the process to develop guidelines
- Identify the most important recommendations in each guideline
- Demonstrate how the guidelines apply to practice
- > Management of the Potential Organ Donor in the Intensive Care Unit
Gerard J. Fulda
- > Critical Care Delivery: The Importance of Process of Care and ICU Structure to Improve Outcomes
Barry J. Weled
- > Guidelines for Stress Ulcer Prophylaxis in Adult Critically Ill Patients
Henry Cohen
- > Guidelines for the Appropriate Use of Bedside General and Cardiac Ultrasonography by the Intensivist
Mahmoud A. Elbarbary

10:00 A.M. - 12:00 P.M.

Pediatric Pulmonary Hypertension: The Changing Landscape

Moderator: Lisa Kohr

LEARNING OBJECTIVES

- Describe basic management principles of children with pulmonary hypertension
- Explain the role of inhaled therapies and emerging therapies for pulmonary hypertension
- Discuss development of a medication treatment plan for pulmonary hypertension
- > Basic Science of Pediatric Pulmonary Hypertension
Jeffrey R. Fineman
- > Medications and Novel Therapies for Short- and Long-Term Management
Eric Abel
- > Pediatric Pulmonary Arterial Hypertension: Beyond Infancy
Andrew T. Costarino
- > Quality of Life and Pulmonary Hypertension
Lisa Kohr
- > Transplant and Pulmonary Hypertension
Samuel B. Goldfarb

10:00 A.M. - 12:00 P.M.

Sepsis and the Elderly

Moderator: Mitchell Levy

LEARNING OBJECTIVES

- Discuss how sepsis differs in the elderly, from basic science to epidemiology (bench to bedside)
 - Review how sepsis is now a disease of the elderly and how it could impact our current thought processes on the disease
 - Describe how elderly patients' response to sepsis differs from that of younger cohorts (basic science)
 - Identify how the research impacts nursing care of elderly patients with sepsis
- > Clinical Manifestations: Recognizing the Sepsis Phenotype in the Elderly
Rahul Nanchal
 - > From Mice to Men: Pathophysiology of Immunosenesence
Philip A. Efron
 - > Critical Care Nursing of the Elderly Septic Patient
Mary Ann Barnes-Daly
 - > Conversing with the Experts: Panel Discussion
Rahul Nanchal, Philip A. Efron, Mary Ann Barnes-Daly

11:00 A.M. - 12:00 P.M.

Clinician Pro/Con: Paralysis and Proning in ARDS

Moderator: John Marini

LEARNING OBJECTIVE

- Examine ARDS ventilator management from opposing perspectives
- > Paralysis: Yes, Proning: No
Robert C. Hyzy
 - > Proning: Yes, Paralysis: No
Ivor S. Douglas
 - > Conversing With the Experts: Panel Discussion
Robert C. Hyzy, Ivor S. Douglas

11:00 A.M. - 12:00 P.M.

I Don't Need a Stinking Operating Room: Safety of Surgery at the Bedside

Moderator: Kevin McConnell

LEARNING OBJECTIVES

- Discuss when to perform a bedside procedure
 - Determine when a backup is needed for intensivists performing bedside procedures
 - Review best practices for credentialing of bedside procedures
- > Is the Checklist Enough?
Jose J. Diaz
 - > What Procedure and When?
Douglas F. Naylor, Jr.

11:00 A.M. - 12:00 P.M.

The Agency for Healthcare Research and Quality's (AHRQ's) National Implementation of the Comprehensive Unit-Based Safety Program (CUSP) to Reduce Catheter-Associated Urinary Tract Infections (CAUTI)

Moderator: William Miles

LEARNING OBJECTIVES

- Discuss the results of SCCM's partnership with the Cohort 9 Initiative to reduce CAUTI in the ICU
 - Examine strategies to gain physician acceptance of CAUTI prevention
 - Identify successful outcomes related to using a critical care CNS/MD dyad and the State Hospital Association leads
- > Cohort 9 ICU CAUTI Project Report
Kristine A.K. Lombardozi
 - > Physician Successes and Barriers
William S. Miles
 - > Clinical Nurse Specialist/Physician Partnership/State Hospital Association Success
Julia Retelski

12:15 P.M. - 1:30 P.M.

• FELLOWSHIP DIRECTORS' LUNCHEON

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Beyond Procedural Simulation in Critical Care Fellowships

Moderator: Aaron Joffe

LEARNING OBJECTIVES

- Review the results of a Program Directors' survey regarding the utilization of non-procedural simulation training for fellows
 - Demonstrate the utility of simulation for teaching disclosure and delivery of bad news
 - Identify advantages and disadvantages of traditional laboratory-based and newer in situ simulation paradigms in critical care training
 - Discuss how to use your simulations to assess competence in critical care
- > Welcome and Review of Fellowship Program Director Survey Results
Aaron M. Joffe
 - > The Art of Racing in the Rain: How to Deliver Bad News
Erin K. Kross
 - > In Situ Simulations: C'mon, I Just Spent All This Money on My Sim Center
Tensing Maa
 - > How Do I Know if My Simulation is Working? Measuring Clinical Competence with Simulation
Jose L. Pascual
 - > Panel Discussion

1:30 P.M. - 2:15 P.M.

• PLENARY SESSION

• AKE GRENVIK HONORARY LECTURE

Patient Experience in a Value-Based World



James Merlino, MD, FACS, FASCRS

President and Chief Medical Officer of the Strategic Consulting Division
Press Ganey Associates, Inc.
Chicago, Illinois, USA

LEARNING OBJECTIVES

- Define the patient experience and understand its relationship to healthcare operations
- Understand how healthcare reform and the Affordable Care Act are driving an improved patient experience
- Recognize the physician's role in an enhanced patient experience

2:15 P.M. - 3:15 P.M.

Break

3:15 P.M. - 4:15 P.M.

Are Blood Transfusions Necessary?

Moderator: Mark Nunnally

LEARNING OBJECTIVES

- Explain the quest for transfusion threshold
 - Discuss the risks-benefit ratio of transfusion
 - Review the prevalence and risks of anemia in the critically ill
 - Describe the current recommendations for anemia therapy
- > Anemia in Critical Care Medicine: Prevalence, Outcome, Diagnosis and Available Treatment
Aryeh Shander
 - > Current Transfusion Threshold: Confusion and Conviction
Lena M. Napolitano
 - > Fresh Blood, Leukodepleted Blood: Does It Matter?
Paul C. Hebert

3:15 P.M. - 4:15 P.M.

How to Build a Successful Extracorporeal Membrane Oxygenation (ECMO) Program at Your Institution

Moderator: Heidi Dalton

LEARNING OBJECTIVES

- Discuss physiology and indications for ECMO
 - Describe the necessary requirements (institutional support and multidisciplinary team) for developing an ECMO program
 - Identify how to track the success of the ECMO program's goals and outcomes
- > An Overview of ECMO Physiology, Indications and the Extracorporeal Life Support Organization
Pauline K. Park
 - > Building a Stabilize and Support ECMO Program
Lillian Su
 - > Building a Stabilize and Transfer Program
Heidi J. Dalton

3:15 P.M. - 4:15 P.M.

• LAERDAL AWARD

Laerdal Award Session

Moderator: TBD

3:15 P.M. - 4:15 P.M.

Precision Pharmacodelivery in the PICU: Role of Kinetics Analysis and Modeling

Moderator: Elizabeth Farrington

LEARNING OBJECTIVES

- Discuss the pathophysiologic alterations in drug disposition and transport with studies involving both animal models and clinical samples
 - Describe the methodology, applications, and limitations of pharmacokinetic modeling in pediatric drug delivery
 - Review the challenges of extracorporeal membrane oxygenation (ECMO) in drug delivery and dosing
- > Pathophysiologic Mechanisms of Variability to Drug Response in Critical Ill Conditions
Elizabeth A. Farrington
 - > Pharmacokinetics and Pharmacodynamics Modeling in Pediatrics
Jennifer L. Morris
 - > Pharmacokinetics of Drugs in Critically Ill Children Supported by ECMO
James D. Fortenberry

3:15 P.M. - 4:15 P.M.

• SCCM/ESCIM JOINT SESSION

Sepsis Redefined

Moderators: Craig Coopersmith, Daniel De Backer

LEARNING OBJECTIVES

- Discuss the rationale behind a new definition for sepsis
 - Review the new definition of sepsis
- > Why Do We Need a New Definition?
Clifford S. Deutschman
 - > Quick Sequential Organ Failure Assessment (qSOFA)
Christopher W. Seymour
 - > Septic Shock
Manu Shankar-Hari
 - > What is the New Definition?
Mervyn Singer

Schedule of Events

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MONDAY, FEBRUARY 22

3:15 P.M. - 5:30 P.M.

Traumatic Brain and Spinal Cord Injury: What's New?

Moderator: Evie Marcolini

LEARNING OBJECTIVES

- Review the latest modalities in cerebral monitoring and treatment of intracranial pressure treatment
 - Discuss the current available therapies to predict and enhance neurologic recovery after traumatic brain and spinal cord injury
 - Compare the previous and newest guidelines for the management of acute spinal cord injury, including changes to steroid recommendations
- > Traumatic Brain Injury: Current Concepts and Barriers to Best Practices
Shelly D. Timmons
 - > Management of Intracranial Hypertension
Kristine H. O'Phelan
 - > Just Not Waking Up, Will it Ever Happen? Tests and Strategies
Thomas P. Bleck
 - > Acute Spinal Cord Injury: Guidelines and Changing Recommendations
Alex B. Valadka
 - > Conversing With the Experts: Panel Discussion
Shelly D. Timmons, Kristine H. O'Phelan, Alex B. Valadka, Thomas P. Bleck

3:15 P.M. - 4:15 P.M.

Year in Review: Research

Moderator: Alejandro Rabinstein

LEARNING OBJECTIVES

- Discuss the most recent developments in the main fields of critical care research
 - Recognize priorities for future research in critical care
- > Basic and Translational Research
Raghavan Murugan
 - > Clinical and Epidemiologic Research
Norma Michelle Smalls-Mantey
 - > ICU Quality and Patient Safety
Marilyn Hravnak

3:15 P.M. - 4:15 P.M.

Year in Review: Surgery

Moderator: Jose Diaz

LEARNING OBJECTIVES

- Review current literature to change practice in the care of the traumatically injured patient
 - Identify current literature to change practice in the care of the emergent critically ill patient
 - Discuss current literature to change practice in the care of the surgical critically ill patient
- > What's New in Surgical Critical Care?
Douglas F. Naylor, Jr.
 - > What's New in Emergency General Surgery?
Jose J. Diaz
 - > What's New in Trauma Surgery?
William S. Miles

3:15 P.M. - 5:30 P.M.

ABCDEF Bundle Improvement Collaborative: Is the Whole Greater Than the Sum of the Parts?

Moderator: Carol Thompson

LEARNING OBJECTIVES

- Identify the gaps in the current critical care delivery system
 - Examine the relationship between improving teamwork/communication and patient outcomes
 - Identify the benefits of empowering family as members of the healthcare team
 - Discuss how improving teamwork/communication can decrease the incidence of delirium
 - Explain the ABCDEF Bundle Improvement Collaborative mission and methods
- > Gaps Between Processes, People and Patients
E. Wesley Ely
 - > The Teamwork and Communication Connection
Brenda T. Pun
 - > Adding the "F" Word to the ABCDEF Bundle
Mary Ann Barnes-Daly

Continued ↗

ABCDEF Bundle improvement..., Continued

- > Putting It All Together: The ABCDEF Improvement Collaborative Preliminary Findings
Michele C. Balas
- > Conversing with the Experts: Panel Discussion
E. Wesley Ely, Brenda T. Pun, Mary Ann Barnes-Daly, Michele C. Balas

4:30 P.M. - 5:30 P.M.

Acute Stroke in the ICU: New Methods of Rescue

Moderator: Thomas Bleck

LEARNING OBJECTIVES

- Review recent studies evaluating emergent thrombectomy after acute ischemic stroke
 - Discuss the criteria for acute stroke thrombolysis and thrombectomy
 - Explore the use of CT and MR imaging to facilitate the evaluation of approaching candidates for thrombectomy independent of time criteria alone
 - Critique cases of "unknown" patients with neurologic deficits after surgery or other ICU patients
- > Acute Stroke Thrombolysis and Thrombectomy: Criteria and New Studies
Kevin N. Sheth
 - > Time Versus Tissue: Using New Imaging Modalities
Neeraj Badjatia
 - > Case Discussion

4:30 P.M. - 5:30 P.M.

Assessing and Reversing Coagulopathy in the ICU

Moderator: William Dager

LEARNING OBJECTIVES

- Explain the role of viscoelastic coagulation monitoring in assessing for the presence and severity of coagulopathy
 - Discuss the reversal of coagulopathy due to novel anticoagulants
 - Summarize the utility of various tests to assess for platelet dysfunction
- > Measuring Coagulopathy: Serum-Based Testing Versus Viscoelastic Coagulation Testing
Martin A. Schreiber
 - > Reversal of Novel Anticoagulants
Mitchell J. Daley
 - > Evaluating for and Treating Platelet Dysfunction
Ryan Zarychanski

4:30 P.M. - 5:30 P.M.

Early Interventions in Sepsis Management: Where are we after EGDT, ProCESS, ARISE and ProMISE?

Moderator: Djillali Annane

LEARNING OBJECTIVES

- Review the impact of current trials on sepsis management
 - Discuss different therapeutic approaches for the patient in septic shock
 - Assess the potential implications of different therapeutic approaches for sepsis
- > What Do the Trials of Early Goal-Directed Therapy Tell Us?
David Tom Huang
 - > Don't Throw the Baby Out With the Bathwater
Greg S. Martin
 - > Are We Just Kidding Ourselves?
Charles Natanson

4:30 P.M. - 5:30 P.M.

A NINJA in the ICU: Novel Methods for the Prevention of Drug-Associated Acute Kidney Injury

Moderator: Sandra Kane-Gill

LEARNING OBJECTIVES

- Identify risk factors and biomarkers predictive of acute kidney injury (AKI)
 - Describe the implementation of an automated alert system to detect drug-associated AKI
 - Explain the potential role of biomarkers for the early detection of drug-associated AKI
 - Evaluate the cost of drug-associated AKI
- > Risk Factors and Predictors of Drug-Associated AKI
Brian L. Erstad
 - > Striving for Early Detection of Drug-Associated AKI
Sandra L. Kane-Gill
 - > Can NINJA Work in the ICU?
Stuart L. Goldstein

4:30 P.M. - 5:30 P.M.

No Good Deed Goes Unpunished: The Pros and Cons of Pay for Performance

Moderator: Michael Rie

LEARNING OBJECTIVES

- Discuss how performance measures are selected
 - Review how performance measures can distort care
 - Describe how to deliver great care while still reporting on measures
- > Demystifying the Selection of Performance Metrics
Jeremy M. Kahn
 - > The Good, The Bad and the Ugly When Selecting Performance Measures: The Case of Sepsis Measures
Michael Klompas
 - > Threading the Needle: Meeting Metrics, Managing Patients
Michael D. Howell

4:30 P.M. - 5:30 P.M.

So You Think You're Smarter Than a Fellow

Moderator: Craig Lilly

LEARNING OBJECTIVES

- Review current fluid management strategies
 - Discuss current antibiotic de-escalation strategies
 - Describe current ventilator management strategies
- > Fluid Resuscitation: When is Enough Enough?
Jean-Louis Vincent
 - > Antibiotic Resistance: Enough Already, Stop the Antibiotics
Lama Nazer
 - > I Can't Breathe: Vent Management: Who's Right
Brian K. Walsh

4:30 P.M. - 5:30 P.M.

Year in Review: Clinical Pharmacology and Pharmacy

Moderator: Ishaq Lat

LEARNING OBJECTIVES

- Summarize current data on managing emerging viral infections
 - Apply pharmacologic principles to the care of the patient requiring novel device therapy
 - Review recent literature on emerging nutrition support practices
- > Emerging Infectious Diseases
Stephanie Bass
 - > Pharmacologic Considerations for Machines and Devices in Intensive Care
Michaelia Dunn
 - > Advances in Nutrition Support
Diana Wells Mulherin

6:00 P.M. - 8:00 P.M. HYATT REGENCY ORLANDO

ACCM Convocation and SCCM Awards Ceremony

TUESDAY, FEBRUARY 23, 2016

8:15 A.M. - 9:00 A.M.

- PLENARY SESSION
- MAX HARRY WEIL MEMORIAL LECTURE



Post-ICU Syndrome: Truth About Consequences, Right Care Right Now...and Later



Maurene A. Harvey, MPH, MCCM
Critical Care Educator and Consultant
Glenbrook, Nevada, USA

LEARNING OBJECTIVES

- Define post-ICU syndrome
- Analyze methods to prevent post-ICU syndrome

9:00 A.M. - 10:00 A.M.

Break

9:00 A.M. - 2:00 P.M.

Exhibit and Poster Hall Open

10:00 A.M. - 11:00 A.M.

Goal Directed Hemodynamic Therapy in Acute Neurologic Disorders

Moderator: Robert Stevens

LEARNING OBJECTIVES

- Discuss physiologic rationale and clinical/radiologic evidence supporting hemodynamic augmentation in ischemic stroke
- Review data on hemodynamic therapies in patients with subarachnoid hemorrhage
- Discuss evidence supporting specific hemodynamic strategies in moderate and severe traumatic brain injury
- Review rationale and studies supporting hemodynamic therapy in acute traumatic and non-traumatic spinal cord injury
- > Hemodynamic Augmentation in Ischemic and Intracerebral Hemorrhagic Stroke
Alejandro A Rabinstein
- > Hemodynamic Optimization in Aneurysmal Subarachnoid Hemorrhage
Alex B. Valadka
- > Hemodynamic Optimization in Traumatic Brain Injury
Robert D. Stevens
- > Hemodynamic Strategies for Spinal Cord Injury
Kristine H. O'Phelan



10:00 A.M. - 11:00 A.M.

Human Microbiome: A Driver of Immune System

Moderator: Judith Hellman

LEARNING OBJECTIVES

- Discuss how microbial components contribute to normal physiology and disease predisposition
- Review how changes of intestinal or lung microflora affect outcomes in critical illness
- Describe how changes of microbiome affect functions of immune cells
- > The Gut Microbiome and Lung Ischemia and Reperfusion Injury
Arun Prakash
- > The Re-emerging Role of the Intestinal Microflora in Critical Illness
John C. Alverdy
- > Probiotics in Sepsis?
Paul Wischmeyer

10:00 A.M. - 11:00 A.M.

Managing Comfort in the PICU: Does Comfort Come at the Expense of Withdrawal or Delirium?

Moderator: Martha Curley

LEARNING OBJECTIVES

- Distinguish signs of discomfort, delirium and withdrawal
- Explore standardized measures and tools to aid in clinical assessments
- > Managing Comfort in the Critically Ill Pediatric Patient
Martha A.Q. Curley
- > Evaluating and Managing Withdrawal in the PICU: Using Scoring Systems
Henry Michael Ushay
- > When Is It Delirium, and When Is It Discomfort?
Chani S. Traube

10:00 A.M. - 11:00 A.M.

Optimizing Twitter and Social Media in Critical Care

Moderator: Christopher Carroll

LEARNING OBJECTIVES

- Review Twitter and other social media platforms
- Discuss how social media platforms can be used by critical care professionals
- Identify how to optimize the social media experience
- Describe how social media is being used at the Critical Care Congress
- > Twitter: Isn't it Just a Way to Get into Big Trouble Really Fast?
Elizabeth H. Mack
- > Who to Follow, How to Participate and How the Europeans Do it Better
Tamas Szakmany
- > It's Your Meeting: Social Media Highlights and Data
Mike Harris

10:00 A.M. - 11:00 A.M.

Secretagogues, Hormones and Uncoupling in Chronic Critical Illness: Science and Therapy

Moderator: Patrick Neligan

LEARNING OBJECTIVES

- Discuss the basic science of chronic critical illness and endocrinopathy
- Evaluate clinical data on endocrine therapies
- Formulate theories of endocrine management based on hypothalamic hormone therapy
- > Bench to Bedside: Endocrine Therapies with Promise
Greet H. Van den Bergh
- > Chronic Critical Illness and Endocrinopathy: Outcomes in Endocrine Therapy
Djillali Annane

10:00 A.M. - 12:00 P.M.

Advancing Nutrition Therapies in the ICU



Moderator: Maurene Harvey, RN, MPH, MCCM

LEARNING OBJECTIVES

- Summarize the new SCCM/A.S.P.E.N. guidelines, their limitations and how they should be applied to critically ill patients
- Identify the most common obstacles to implementation of nutrition therapy and devise ways to overcome them
- Examine therapies aimed at minimizing muscle catabolism and atrophy in the critically ill
- Evaluate recent publications concerning nutrition education and discuss options for improving nutrition education for the future intensivist
- > An Insider's Look at the Updated SCCM/A.S.P.E.N. Guidelines for the Provision and Assessment of Nutrition
Mary S. McCarthy
- > Exposing Obstacles to Adequate Nutrition Delivery: An Exposé on the Modern ICU
Beth Taylor
- > Malnutrition, Metabolomics, Muscles and Metabolism: Getting the Most out of Nutrition Therapy
Brian L. Erstad
- > Up-to-Speed and Ready-to-Feed? Exploring Ways to Improve Nutrition Education for Future Physicians
Christy M. Lawson
- > Conversing with the Experts: Panel Discussion
Mary S. McCarthy, Beth Taylor, Brian L. Erstad, Christy M. Lawson

10:00 A.M. - 12:00 P.M.

The Goldilocks Dilemma: EEG Monitoring in the ICU

Moderator: Thomas Bleck

LEARNING OBJECTIVES

- Review which patients would benefit from continuous EEG monitoring
- Discuss the impact of electrographic seizures on survival and neurologic outcomes
- Determine whether quantitative EEG trends allow intensivists to identify seizures at bedside and direct care
- Identify how aggressively to treat seizures, anticonvulsant medication efficacy, and anticonvulsant medication adverse effects
- Summarize recent guidelines on EEG monitoring in critically ill patients and adherence feasibility
- > Who Should We Monitor Intensively? Does it Impact Outcomes?
Nicholas Abend
- > Do I Need a Neurologist? Quantitative EEG in the ICU
Alexis Ann Topjian
- > How Much Treatment is too Much Treatment?
Neeraj Badjatia
- > Should We Follow the Rules? Can We Do What the Guidelines Say?
Paul Alan Nyquist
- > Conversing with the Experts: Panel Discussion
Nicholas Abend, Alexis Ann Topjian, Neeraj Badjatia, Paul Alan Nyquist

10:00 A.M. - 12:00 P.M.

Optimizing Post-Cardiac Arrest Resuscitation

Moderator: Elizabeth Hunt

LEARNING OBJECTIVES

- Review the 2015 update of guidelines on resuscitation from ILCOR/AHA
- Discuss the role and optimization of post-resuscitation cooling
- Identify gaps in knowledge that limit the guidelines and recommendations
- Describe how to build a resuscitation team and implement these guidelines
- > What's New and What's Gone in the 2015 Guidelines
Ana Lia Graciano
- > Building Your Team: Who Has the Best Response Team?
Elizabeth Hunt
- > Optimal Monitoring
Robert M. Sutton
- > What Is the Role for Cooling?
Alejandro A Rabinstein
- > What's on the Horizon in Resuscitation Research?
Vinay M. Nadkarni

Schedule of Events

This schedule is subject to change. Visit www.sccm.org/congress for the most up-to-date schedule.

TUESDAY, FEBRUARY 23

10:00 A.M. - 12:00 P.M.

Surviving Sepsis Campaign: Screening Every patient, Every Shift, Every Day—Sepsis on Wards

Moderator: Sean Townsend

LEARNING OBJECTIVES

- Discuss how to implement a screening protocol for every shift, every patient, every day
- Review strategies on how to engage the multidisciplinary team
- Determine when and how to spread beyond pilot units for sepsis screening on the wards
- Review data on compliance and learn about mortality reduction
- > Pitfalls and Wins: Staff Buy-In for Sepsis Screening on Hospital Wards
Christa A. Schorr
- > System Sepsis Improvement: Many Hospitals, One Initiative
Stephen Knych
- > Hospitalists Leading, Promoting and Supporting House-Wide Sepsis Detection and Intervention
Andrew Odden
- > Show Me the Data!
Mitchell M. Levy
- > Strategies in Using Rapid Response Teams to Verify Positive Screens
Richard J. Beale

11:00 A.M. - 12:00 P.M.

Experimental Extracorporeal Therapies for the Treatment of Bloodstream Infections and Sepsis

Moderator: Jean-Louis Vincent

LEARNING OBJECTIVES

- Describe strategies for removal of bacteria, viruses and endotoxins
- Provide an update on clinical trials of endotoxin and cytokine removal in patients with sepsis
- Demonstrate the role of activated leukocytes in sepsis
- > CytoSorbents Filter for Removal of Pro-Inflammatory Cytokines
Kai Singbartl
- > Aethlon Hemopurifier Cartridge for Virus Removal
Sean M. Bagshaw
- > Coupled Plasma Filtration-Adsorption
Thomas Rimmelé
- > Immobilized Polymyxin B Filter for the Removal of Endotoxin in Patients with Severe Sepsis
R. Phillip Dellinger

11:00 A.M. - 12:00 P.M.

Mechanical Ventilation: Physiology in Action

Moderator: Rahul Nanchal

LEARNING OBJECTIVES

- Review physiology pertinent to mechanical ventilation
- Discuss the interaction of mechanical ventilation with various organ systems in normal and disease states
- Identify complexities of abdominal circulatory and respiratory interactions during mechanical ventilation
- > What Are All These Pressures and Volumes?
Steven R. Holets
- > Circulatory Effects
Michael R. Pinsky
- > Mechanical Ventilation: Abdominal/Chest Wall Interactions
Dean R. Hess
- > Putting It All Together: Abdominal Respiratory Circulatory Interactions During Ventilation
Rahul Nanchal

11:00 A.M. - 12:00 P.M.

Peering into the Crystal Ball: Updates on Neuroprognostication for Common ICU Situations

Moderator: Kevin Sheth

LEARNING OBJECTIVES

- Diagram an algorithmic, evidence-based approach to predicting functional outcome after cardiac arrest
- Name common outcome calculators available for prognosticating outcome after ischemic and hemorrhagic stroke
- Describe the relationship between neuroimaging findings and severe traumatic brain injury outcome
- > Update on Neuroprognostication after Cardiac Arrest
Christopher G. Zammit
- > Update on Neuroprognostication after Ischemic and Hemorrhagic Stroke
David Hwang
- > Update on Neuroprognostication after Traumatic Brain Injury
Susanne Muehlschlegel

11:00 A.M. - 12:00 P.M.

Shared Decision-Making and Decision Analysis in ICU

Moderator: Dan Thompson

LEARNING OBJECTIVES

- Discuss steps and components of medical decision-making
- Review the use of reliable, balanced, and evidence-based information for decision-making
- Identify methods and opportunities to activate patient/surrogate involvement in decision-making
- > Introduction to Medical Decision-Making
Nneka O. Sederstrom
- > Models of Shared Decision-Making
David W. Crippen
- > Decision Aids for Patients/Surrogates
Joanna L Hart

11:00 A.M. - 12:00 P.M.

Training the Next Generation of Critical Care Practitioners: State of the (Critical Care) Union

Moderator: Lena Napolitano

LEARNING OBJECTIVES

- Describe the benefits and detriments of the current education model of critical care disciplines
- Discuss the challenges faced in the job market for future practitioners
- Identify what steps must be taken to advance critical care professionals into the 22nd century
- > Physician Perspective
Lena M. Napolitano
- > Pharmacist Perspective
Michael W. Sirimaturus
- > Nurse Perspective
Ruth M. Kleinpell

11:00 A.M. - 12:00 P.M.

SCCM Business Meeting

12:00 P.M. - 12:30 P.M.

ACCM Business Meeting

12:00 P.M. - 2:00 P.M.

Poster Board Retrieval

All posters must be removed from the Exhibit Hall by 2:00 P.M. Any posters not removed by the deadline will be discarded. Any materials left behind will not be the responsibility of the Society of Critical Care Medicine, Orange County Convention Center, or GES decorating Company.

12:30 P.M. - 1:30 P.M.

• NON-CE SESSION

Become a Fellow of the American College of Critical Care Medicine

Moderator: TBD

LEARNING OBJECTIVE

- Define the eligibility criteria for fellowship in the American College of Critical Care Medicine
- > Become a Fellow of the American College of Critical Care Medicine
TBD

2:00 P.M. - 2:45 P.M.

• PLENARY SESSION

Value-Based Medicine: Dollars and Sense



Brian L. Erstad, BCPS, MCCM, PharmD

Professor and Head
The University of Arizona College of Pharmacy
Department of Pharmacy Practice and Science
Tucson, Arizona, USA

LEARNING OBJECTIVES

- Review the risk factors that contribute to the cost of drug therapy
- Describe the problems and difficulties with interpreting conclusions from medical literature into bedside practice
- Discuss methods to assess cost of care at the local level

2:45 P.M. - 3:15 P.M.

Break

3:00 P.M. - 4:30 P.M.

• ACCM TOWN HALL

Pro/Con Debates: Fluid: Friend or Foe? Oxygen: Too Much or Not Enough?

Moderator: Michaela West

LEARNING OBJECTIVES

- Debate the use of fluids in critically ill patients
- Debate the use of oxygen in critically ill patients
- > Fluid Friend
Jean-Louis Vincent
- > Fluid Foe
Marie R. Baldisseri
- > Fluid Rebuttal
Jean-Louis Vincent, Marie R. Baldisseri
- > Oxygen: Too Much?
Wendy Ricketts Greene
- > Oxygen: Not Enough?
A. Joseph Layon
- > Oxygen Rebuttal
Wendy Ricketts Greene, A. Joseph Layon

3:15 P.M. - 4:15 P.M.

Aerosolized Antibiotics in the ICU: Where Do They Fit?

Moderator: Dean Hess

LEARNING OBJECTIVES

- Identify optimal characteristics of antibiotics and nebulization systems for aerosolized administration in mechanically ventilated patients
- List the antibiotics that are reported in the literature to have been nebulized for therapy
- Evaluate the literature for the use of aerosolized antibiotics in the treatment of ventilator-associated tracheobronchitis and pneumonia
- > Bioavailability: Pharmacokinetics of Aerosolized Antimicrobials
Eric W. Mueller
- > Delivery of Aerosolized Drugs
Dean R. Hess
- > Clinical Use of Aerosolized Drugs
Ivor S. Douglas

3:15 P.M. - 4:15 P.M.

Hot Topics and Late-Breaking Science I

Moderator: TBD

3:15 P.M. - 4:15 P.M.

Update on the PETAL Network: Prevention and Early Treatment of Acute Lung Injury

Moderators: Robert Hyzy, Pauline Park

LEARNING OBJECTIVES

- Summarize the goals and direction in federally funded clinical trials in Acute Respiratory Distress Syndrome
- Review current and upcoming PETAL research
- Discuss the importance of multispecialty collaboration in the PETAL network
- > From ARDSNet to PETAL
Roy G. Brower
- > New PETAL Multicenter Trials
Daniel S. Talmor
- > Multispecialty Partnering in Critical Care Research: From ED to ICU
Derek C. Angus

3:15 P.M. - 4:15 P.M.

Year in Review: Emergency Medicine

Moderator: Isaac Tawil

LEARNING OBJECTIVES

- Review recent studies from the emergency medicine and intensive care literature
- Discuss the impact of these studies on application to current practice
- > Cardiac Arrest and Post-Arrest Advances
Scott D. Weingart
- > Emergency Department Critical Care Advances
Clifford G. Reid

3:15 P.M. - 4:15 P.M.

Year in Review: Neuroscience

Moderator: Paul Nyquist

LEARNING OBJECTIVES

- Review the new changes in treatment standards for acute stroke
- Discuss new developments in the treatment of acute neurologic disorders
- Describe new developments in the clinical science of neurocritical care
- > Updates in Interventions for Acute Stroke
Jordan Bonomo
- > Updates in Acute Neuroscience
Evie G. Marcolini

3:15 P.M. - 4:15 P.M.

Year in Review: Nursing

Moderator: Lisa Kohr

LEARNING OBJECTIVES

- Review the year's critical care studies relevant to critical care nursing
- Evaluate the literature using an evidence-based approach
- Discuss how to apply the information gained to clinical nursing practice
- > Pediatric Critical Care Nursing
Karin E. Reuter-Rice
- > Adult Critical Care Nursing
Samantha A Gambles Farr

3:15 P.M. - 4:15 P.M.

Year in Review: Pediatrics

Moderator: Derek Wheeler

LEARNING OBJECTIVES

- Discuss the top basic science research publications
- Review the top clinical/translational research publications
- Identify the top quality improvement/education/PICU administration publications
- > Basic Science
Stephen Standage
- > Clinical/Translational Science
Scott L. Weiss
- > Quality Improvement/PICU Administration/Education
Elizabeth H. Mack

3:15 P.M. - 5:30 P.M.

Divergent Views of Personalized Medicine in Critical Illness

Moderator: Frederick Moore

LEARNING OBJECTIVES

- Discuss biologic diversity as demonstrated via genomic, proteomic, metabolomic, and lipidomic analysis
- Review how unique genomic and proteomic expression profiles underlie differences in disease risk, severity, natural history and outcomes
- Use mechanistic knowledge generated via systems biology to discover novel and effective therapies for life-threatening illnesses encountered in the ICU
- > Genetic Diversity in Sepsis
Hector R. Wong
- > Using Genomics to Understand Acute Respiratory Distress Syndrome Risk and Severity
Nuala Meyer
- > Genomic and Proteomic Analysis in Ischemic Stroke
Robert D. Stevens
- > Gene and Protein Expression in Acute Kidney Injury
Azra Bihorac
- > Diversity of Immunologic Function in Critical Illness
Richard S. Hotchkiss

3:15 P.M. - 5:30 P.M.

Toward Value-Based Critical Care: Aligning Financial Incentives to Improve Critical Care Delivery

Moderator: Mark Mikkelsen

LEARNING OBJECTIVE

- Review the healthcare policy mandate that is driving the value-based care movement
- Examine cost-effective critical care workforce and staffing strategies to employ in our hospitals
- Detail strategies to improve knowledge translation as it relates to patient-centered outcomes
- Discuss the roles of standardization and innovation as strategies to improve critical care delivery
- Determine how the evidence should be applied to guide regional delivery of critical care
- > How Incentives (and Disincentives) Can Be Used to Improve the Quality of Critical Care
Jeremy M. Kahn
- > Cost-Effective Critical Care Delivery: What Does It Look Like?
Scott D. Halpern
- > Bridging the Quality Gap: Aligning What We Should Do with What We Actually Do
Damon C Scales
- > Standardization or Innovation: Prioritizing Strategies to Transform Critical Care Delivery
Bradford D. Winters
- > Critical Care Delivery at the 30,000-Foot Level: How Should a Region Design Critical Care?
Hannah Wunsch

4:30 P.M. - 5:30 P.M.

Inhaled Therapies in the ICU

Moderator: Dean Hess

LEARNING OBJECTIVES

- Describe the use of the lungs for delivery of medications
- Discuss the use of therapeutic gases for treatment in the ICU
- Summarize the advantages and disadvantages of using the lung as the target for treatment
- > Trace Gases During Mechanical Ventilation
Dean R. Hess
- > Inhaled Anesthetic Agents in the ICU
Gregory E. Kerr
- > Inhaled Vasodilators: Nitric Oxide and Prostacyclins
Richard A. Oeckler

4:30 P.M. - 5:30 P.M.

It's Hot! Not Every Fever Is an Infection

Moderator: Gretchen Brophy

LEARNING OBJECTIVES

- Define the various causes of hyperthermia in ICU patients
- Apply the latest data to the prevention and treatment of hyperthermic emergencies

Continued ↗

It's Hot! Not Every Fever Is an Infection, Continued

- > Neuroleptic Malignant Syndrome
Aaron M. Cook
- > Serotonin Syndrome
Simona Ferioli
- > Thyroid Storm and Other Zebras
Ram Subramanian

4:30 P.M. - 5:30 P.M.

Hot Topics and Late-Breaking Science II

Moderator: TBD

4:30 P.P. - 5:30 P.M.

The Naked Patient: Privacy in the Setting of Big Data

Moderator: Jeremy Kahn

LEARNING OBJECTIVES

- Describe scenarios and develop strategies to avoid situations in which social media can lead to HIPAA violations
- Explain how to protect your rights as a provider when patients and families cross the line
- > Using Social Media to Facilitate Patient Care
Richard H. Savel
- > Legal Issues of Maintaining Confidentiality
James Szalados
- > Case Studies: Panel Discussion

4:30 P.M. - 5:30 P.M.

• SCCM/ACCM RESEARCH SPOTLIGHT

Vision Grant and Distinguished Investigator Updates

Moderator: Jose Pascual

LEARNING OBJECTIVES

- Review the progress made by SCCM's 2014 and 2015 Vision Grant recipients
- Discuss updates to the 2015 Distinguished Investigator Awardee's research
- > Long-Term Decline of Acquired Immunity after Sepsis in Humanized Mice
Krzysztof Laudanski
- > Dysfunctional High Density Lipoprotein in Severe Sepsis
Faheem Guirgis
- > Modulation of the Hypercatabolic Response to Burn Injury
David N. Herndon

4:30 P.M. - 5:30 P.M.

Year in Review: Anesthesiology

Moderator: Adam Evans

LEARNING OBJECTIVES

- Summarize current literature regarding handoffs from the operating room to the ICU
- Discuss strategies for building an effective ECMO program
- Describe the current ICU quality and safety metrics for anesthesiologists working in the operating room and ICU environment
- > Transitions from the Operating Room to the ICU
Mark Edwin Nunnally
- > Building and Sustaining an ECMO Service
Michael Nurok
- > Anesthesia and ICU Quality Indicators
Piyush Mathur

4:30 P.M. - 5:30 P.M.

Year in Review: Internal Medicine

Moderator: Jonathan Sevransky, MD, MHS, FCCM

LEARNING OBJECTIVES

- Review the past year's internal medicine studies relevant to critical care
- Discuss how to apply information from this review to practice
- Evaluate the internal medicine literature using an evidence-based approach
- > Part One
Jonathan E. Sevransky
- > Part Two
Robert C. Hyzy

Schedule of Events

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WEDNESDAY, FEBRUARY 24, 2016

8:15 A.M. - 9:00 A.M.

- PLENARY SESSION
- PETER SAFAR MEMORIAL LECTURE

Treating Lethal Infectious Disease in the ICU



Lewis A. Rubinson, MD, PhD
 Medical Director, Critical Care Resuscitation Unit
 R. Adams Cowley Shock Trauma Center
 Associate Professor of Medicine
 University of Maryland School of Medicine
 Baltimore, Maryland, USA

LEARNING OBJECTIVES

- Describe why ICUs have been disproportionately impacted in the past and are likely to be so during future outbreaks of serious novel pathogens
- List the ways novel pathogens may be transmitted in ICUs, and describe key questions which must be answered to keep critical care responders safe while caring for infected patients
- Discuss key critical care leadership functions which must be undertaken to ensure patient care and health care worker safety are optimized during an evolving outbreak

9:00 A.M. - 9:30 A.M.

Break

9:30 A.M. - 10:30 A.M.

Critical Care Needs and Capacity Building in Limited Resource Settings

Moderator: Ndidiamaka Musa

LEARNING OBJECTIVES

- Outline the importance and challenges of enhancing critical care as a fundamental element of healthcare systems in low-middle income countries
 - Delineate solutions to closing the critical care health system's gap in limited resource settings
 - Describe critical care training opportunities in low-middle income countries
 - Demonstrate the role of global partnerships, including SCCM, in building critical care capacity in low-middle income countries
- > Why Enhance Critical Care in Limited Resource Settings?
Niranjan Kisson
 - > Examples of Critical Care Capacity Building in Limited Resource Settings
Peter Andrew Meaney
 - > Surgical Critical Care in Resource Limited Environments
Mary J. Reed

9:30 A.M. - 10:30 A.M.

Preparing for a Deadly Infectious Disease in My Unit

Moderator: Lewis Rubinson

LEARNING OBJECTIVES

- Review cost implications
 - Discuss preparation and logistics
 - Identify public relation implications
- > Preparing the Nursing Staff: Keeping Competencies
Melissa Hubbard
 - > Preparing for Deadly Infectious Diseases: The National Institutes of Health's Role
Henry Masur
 - > Preparing the ICU: Engaging Hospital Administration for Resources
Jonathan E. Sevransky

9:30 A.M. - 10:30 A.M.

Therapeutic Apheresis in the Critical Care Unit

Moderator: Aryeh Shander

LEARNING OBJECTIVES

- Demonstrate basic understanding of the principles of apheresis
 - Define indications for which therapeutic apheresis procedures are recommended
 - Identify patients in clinical practice who may benefit from therapeutic apheresis
- > Technical Considerations of Therapeutic Apheresis Procedures
Christina Anderson
 - > Indications for Therapeutic Apheresis
Ryan Zarychanski
 - > Treatment of Thrombocytopenia-Associated Multiple Organ Failure (TAMOF)
James D. Fortenberry

9:30 A.M. - 10:30 A.M.

This Is Jeopardy: Answers and Questions with Anticoagulation Reversal

Moderator: Jeffrey Barletta

LEARNING OBJECTIVE

- Describe different strategies for managing excessive bleeding given various patient case scenarios
- > Bleeding Jeopardy
William E. Dager, Lena M. Napolitano, Gourang P. Patel

9:30 A.M. - 10:30 A.M.

Why Is There So Much Acute Kidney Injury?

Moderator: Azra Bihorac

LEARNING OBJECTIVES

- Explore different reasons for high mortality in Acute Kidney Injury (AKI)
 - Recognize epidemiology factors in AKI
 - Relate iatrogenic sources of AKI outcomes
- > Why Do Kidneys Fail?
Lakhmir S. Chawla
 - > Acute Kidney Injury: More Than Just a Bad Outcome
Robert Star
 - > Iatrogenesis Perfecta
Rajit Basu

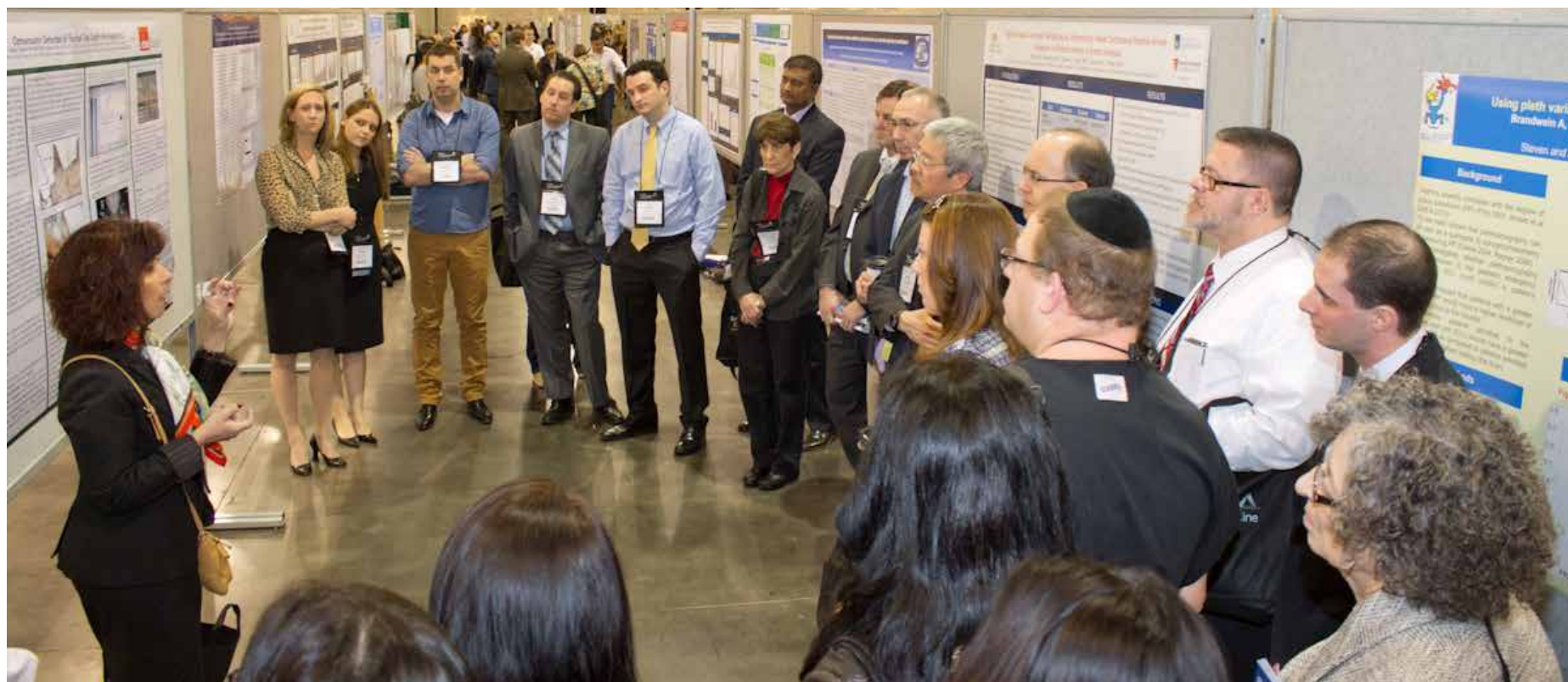
9:30 A.M. - 11:30 A.M.

Clinical Challenges in Mechanical Ventilation

Moderator: Rolf Hubmayr

LEARNING OBJECTIVES

- List advantages and limitations of allowing spontaneous breathing compared with sedation
 - Discuss criteria for selecting patients with hypoxemia for treatment with noninvasive ventilation
 - Describe potential advantages of high-flow nasal oxygen in preventing intubation
 - Review technical challenges of ambulating mechanically ventilated patients
- > Large Tidal Volumes During Spontaneous Breathing: Sedate or Tolerate?
Barry J. Weled
 - > Hypoxemic Respiratory Failure: When Is Noninvasive Ventilation Appropriate?
Dean R. Hess
 - > High-Flow Oxygen by Nasal Cannula: Action and Limitations
Steven R. Holets
 - > Mobilization of the Mechanically Ventilated Patient: How Fast and How Far?
Rhonda Wyskiel
 - > Conversing with the Experts: Panel Discussion
Barry J. Weled, Dean R. Hess, Steven R. Holets, Rhonda Wyskiel



WEDNESDAY, FEBRUARY 24

9:30 A.M. - 11:30 A.M.

Unleashing the Power of Big Data: Leveraging Existing Clinical Data in Critical Care Research

Moderator: Timothy Buchman

LEARNING OBJECTIVES

- Describe the advancement of high-quality scientific inquiry through data science
 - Review information on leveraging existing clinical data sources
 - Discuss data evolution in order to answer clinical and epidemiological questions
- > Leveraging Publically Available Data Sets: Utilizing Large Healthcare Data Sets
Hannah Wunsch
 - > Leveraging Electronic Health Records and Local Data Sets to Answer Clinical Questions in Critical Care
Theodore J. Iwashyna
 - > The Use of Genomic and Biomarker Data to Achieve More Accurate Patient Predictions
Hector R. Wong
 - > Feasibility of Critical Care Registry "Big Data" of the Future: How to Get Started
Timothy G. Buchman

9:30 A.M. - 11:30 A.M.

Favorable Outcomes: Overcoming Obstacles to Recognizing and Treating Severe Sepsis

Moderator: Frederick Moore

LEARNING OBJECTIVES

- Discuss sepsis in the prehospital environment and strategies to optimize outcomes
 - Review how to optimize outcomes from sepsis in the emergency department
 - Create a successful sepsis program in the hospital, especially in the post- PROCESS era
 - Determine how to individualize care and optimize long-term outcomes
- > Optimizing Prehospital Recognition and Therapy
Christopher W. Seymour
 - > Optimizing Outcomes in the Emergency Department
Stephen Trzeciak
 - > Creating a Successful Sepsis Program in Your Hospital
R. Phillip Dellinger
 - > One Size Fits All, or Can We Personalize Care?
Philip A. Efron
 - > What Is Happening to My Patient with Sepsis After Discharge: Optimizing Post-Discharge Outcomes
Sean R. Townsend

10:30 A.M. - 11:30 A.M.

Immunomodulation in the Critically Ill

Moderator: Gretchen Brophy

LEARNING OBJECTIVES

- Describe available agents used for the management of selected immune-modified diseases
 - Explore emerging immune-mediated management therapies and potential implementation approaches
 - Discuss balancing the use of immune modulators and potential therapeutic benefits with the cost burden involved
- > Current Use of Immunomodulators
Mark W. Hall
 - > Targeted Immunotherapy: Immunophenotyping
Richard S. Hotchkiss
 - > Conversing with the Experts: Panel Discussion
Richard S. Hotchkiss, Mark W. Hall

10:30 A.M. - 11:30 A.M.

Management of the Acute Care Surgical Patient

Moderator: Chris Winkelman

LEARNING OBJECTIVES

- Describe the beneficial improvements associated with Surgical Care Improvement Project compliance
 - Identify harms associated with Surgical Care Improvement Project compliance
 - Discuss controversies associated with Surgical Care Improvement Project measures
- > When to Stop the Antibiotics: The Feces Are Everywhere
Simon W. Lam
 - > I Am About to Pop: Abdominal Compartment Syndrome
Kristine A.K. Lombardo
 - > When Will It Ever Close: Fistula Management
Timothy A. Pritts

10:30 A.M. - 11:30 A.M.

Monitoring Resuscitation

Moderator: Michael Pinsky

LEARNING OBJECTIVES

- Appraise the value of monitoring modalities in the ICU
 - Describe the effects of resuscitation monitoring on patient care
 - Weigh the merits of minimalist and maximalist approaches to monitoring
- > The Minimalist Approach to Monitoring
Michael F. O'Connor
 - > The Maximalist Approach to Monitoring
Jean-Louis Vincent
 - > Case Studies: Panel Discussion

10:30 A.M. - 11:30 A.M.

Neurocognitive and Psychological Outcomes After Critical Illness in Childhood

Moderator: Mary Hartman

LEARNING OBJECTIVES

- Review the most recent data on psychological outcomes after critical illness in childhood
 - List the factors associated with worse psychological outcome after pediatric ICU discharge
 - Discuss the factors associated with worse health-related quality of life after pediatric ICU discharge
 - Identify current knowledge gaps and areas for future investigation in nonmorbidity outcomes
- > School-Age Neurodevelopmental Outcomes Following Early Childhood Critical Illness
Sheri Crow
 - > Mental Health Sequelae After Critical Illness in Childhood
Mary E. Hartman
 - > Is Survival Enough: Posttraumatic Stress After Pediatric Critical Illness
Lara P. Nelson
 - > Health-Related Quality of Life After Critical Illness in Childhood
R. Scott Watson

9:30 A.M. - 11:30 A.M.

Nutrition Support in Special Populations

Moderator: Beth Taylor

LEARNING OBJECTIVES

- Discuss the newest insights in providing nutritional support of critically ill patients with sepsis, renal failure and liver failure
 - Review issues related to feeding critically ill obese patients
 - Describe the pro-inflammatory signaling pathways of adipocytes that affect the response to sepsis
 - Provide insight into the pathophysiological mechanisms of obesity-dependent susceptibility to sepsis
- > Feeding the Septic Patient
Beth Taylor
 - > Feeding Considerations in Patients with Renal and Hepatic Failure
Michael J. Connor
 - > Feeding the Critically Ill Obese Patient
Daren K. Heyland
 - > Role of Adipose Tissue and Obesity in Susceptibility to Inflammation and Infection
Gail Cresci
 - > Conversing with the Experts: Panel Discussion
Michael J. Connor, Daren K. Heyland, Gail Cresci, Beth Taylor

10:30 A.M. - 11:30 A.M.

Response Research: What We Learned, or Should Learn, from Research Efforts During the Ebola Response

Moderator: Derek Angus

LEARNING OBJECTIVES

- Describe the research advances made during the 2014 Ebola outbreak
 - Identify the importance of patient level data to informing public health responses to disasters or pandemics
 - Discuss novel research strategies and designs to allow more effective research during disasters, pandemics or outbreaks in the future
- > Overview of Research Outcomes During the Ebola Outbreak
Robert A. Fowler
 - > ICU: The Interface Between Clinical Research and Public Health Response
Lewis A. Rubinson
 - > The Future of Response Research: INFAC/ISARIC
Michael D. Christian



WEDNESDAY, FEBRUARY 24

Erik E. Abel, BCPS, PharmD
Richard M. Ross Heart Hospital
Columbus, Ohio, USA

Benjamin S. Abella, MD
Trauma Center at Penn, OLSE
Philadelphia, Pennsylvania, USA

Nicholas Abend
The Children's Hospital of Philadelphia
Philadelphia, Pennsylvania, USA

Waleed Al-hazzani
McMaster University
Hamilton, Ontario, Canada

John C. Alverdy, MD, FACS
University of Chicago
Chicago, Illinois, USA

Dennis E. Amundson, DO, FCCM
Scripps Mercy Hospital
Encinitas, California, USA

Christina Anderson
Oklahoma Blood Institute
Oklahoma City, Oklahoma, USA

Derek C. Angus, MD, MPH, MCCM
University of Pittsburgh Critical Care
Medicine CRISMA Laboratory
Pittsburgh, Pennsylvania, USA

Djillali Annane, MD
Hospital Raymond Poincare
France

Ayse A. Arikan, MD
Baylor College of Medicine
Houston, Texas, USA

John H. Arnold, MD
Harvard Medical School
Boston, Massachusetts, USA

Neeraj Badjatia, MD, FCCM
University of Maryland
R. Adams Cowley Shock Trauma Center
Baltimore, Maryland, USA

Sean M. Bagshaw, MD, MSc
University of Alberta
Edmonton, Alberta, Canada

Michele C. Balas, CCRN, PhD, FCCM
The Ohio State University
Columbus, Ohio, USA

Marie Rosanne Baldisseri, MD, MPH, FCCM
University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania, USA

Kianoush Banaei-Kashani, MD, FASN, FCCP
Mayo Clinic
Rochester, Minnesota, USA

David W Barbara, MD
Mayo Clinic Department of Anesthesiology
Rochester, Minnesota, USA

Jeffrey F. Barletta, PharmD, FCCM
Department of Pharmacy Practice
Glendale, Arizona, USA

Mary Ann Barnes-Daly, BSN, CCRN, RN, DC
Sutter Health System
Sacramento, California, USA

Linda J. Barton, DVM, DVM, DACVECC
ACCES Renton
Renton, Washington, USA

Stephanie Bass, BCPS, PharmD
Cleveland Clinic Foundation
Cleveland, Ohio, USA

Rajit Basu, MD
Cincinnati Children's Hospital
Cincinnati, Ohio, USA

Seth R. Bauer, BCPS, PharmD, FCCM
Cleveland Clinic Foundation
Cleveland, Ohio, USA

Richard J. Beale, MD, MBBS
Saint Thomas' Hospital
London, United Kingdom

Michael J. Bell, MD
Children's Hospital of Pittsburgh
Pittsburgh, Pennsylvania, USA

Scott T. Benken, BCPS, PharmD
University of Illinois Health Sciences and
Medical Center
Chicago, Illinois, USA

Michael L. Bentley, PharmD, FCCM
Carilion Clinic
Roanoke, Virginia, USA

Utpal S. Bhalala, MD
Johns Hopkins Hospital
Baltimore, Maryland, USA

Azra Bihorac, MD, MS, FCCM
University of Florida School of Medicine
Gainesville, Florida, USA

Edward A. Bittner, MD, PhD, FCCM
Massachusetts General Hospital
Boston, Massachusetts, USA

Thomas P. Bleck, MD, MCCM
Rush Medical College
Chicago, Illinois, USA

Jordan Bonomo, MD, FCCM
University of Cincinnati
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Last Name (Surname) _____ First _____ Middle Initial _____ Customer/Member # _____
 Degrees/Credentials (ex.: ACNP, MD, PharmD, RN, RRT, etc.) _____ Gender: Male Female
 Organization _____ Address _____
 City _____ State _____ Zip/Postal Code _____
 Country _____ Home Office Phone _____
 Fax _____ Email _____
 Emergency Contact Name _____ Emergency Contact Phone Number _____

2016 CONGRESS REGISTRATION RATES

	Early Rate by 12/16/2015	Advance Rate by 1/13/2016	Full Rate	Daily Rate
MEMBER				
Physician	\$845	\$960	\$1,040	\$495
Healthcare Prof.*	\$615	\$730	\$810	\$385
Student*	\$320	\$380	\$405	\$195
NONMEMBER				
Physician	\$1,075	\$1,190	\$1,270	\$605
Healthcare Prof.*	\$770	\$890	\$970	\$460
Student*	\$410	\$470	\$500	\$235

*Fellows and residents register at the Healthcare Professional rate. Training verification letter must accompany registration form for fellows, residents and students.

FOR DAILY RATES, PLEASE INDICATE WHICH DAY BELOW:

With daily registration, you may attend educational sessions, access the Exhibit Hall and register for ticketed events only on the day for which your registration was purchased.

Sunday, Feb. 21 Monday, Feb. 22 Tuesday, Feb. 23

CONGRESS TUITION

\$ _____

Tuition includes online access to Congress On Demand after Congress and admission to all general Congress sessions, Exhibit Hall and Exhibit Hall refreshment breaks, Poster Hall, and Research Snapshot Theaters.

ADDITIONAL TICKETED SESSIONS/EVENTS

You must register for Congress to attend these courses at the rates listed below. If you do not want to register for Congress, but wish to attend one of the sessions/events listed below, please visit www.sccm.org/store or contact SCCM Customer Service.

FRIDAY, FEBRUARY 19 AND SATURDAY, FEBRUARY 20

- Advances in Veterinary Critical Care \$395 \$ _____
- Critical Care Pharmacy Preparatory Review and Recertification Course \$395 \$ _____
- Critical Care Ultrasound \$1,495 \$ _____
- Critical Care Ultrasound - Pediatric \$1,495 \$ _____
- Current Concepts in Adult Critical Care \$395 \$ _____
- Current Concepts in Pediatric Critical Care \$395 \$ _____

SATURDAY, FEBRUARY 20

Half-Day Course

- Advanced Practice Providers in the ICU: Finances and Productivity \$195 \$ _____

Full-Day Courses

- Adult Airway Management in the Critically Ill \$495 \$ _____
- Fundamentals Faculty Academy \$195 \$ _____
- Hemodynamic Monitoring: From Cardiovascular Physiology to Applied Intensive Care Medicine \$495 \$ _____
- Mechanical Ventilation: Strategies and Implementation \$495 \$ _____

MONDAY, FEBRUARY 22

- Fellowship Program Directors' Luncheon \$75 \$ _____

THURSDAY, FEBRUARY 25 AND FRIDAY, FEBRUARY 26

- ECMO Management \$1,495 \$ _____
- University of South Florida Health
 Center for Advanced Medical Learning and Simulation
 Tampa, Florida, USA
 Round-trip transportation provided.

PAYMENT INFORMATION (Please send payment with registration form.)

- Check (must be U.S. funds drawn on a U.S. bank) or International Money Order
- Wire Transfer (Please contact SCCM Customer Service for wire transfer information.)
- Credit Card: American Express Discover MasterCard Visa

Card Number _____ Expiration Date _____

Cardholder Name _____

Cardholder Signature _____ Date _____

If you require any special assistance related to a disability, diet or other needs, please contact SCCM Customer Service by e-mail at support@sccm.org or call +1 847 827-6888, Monday through Friday between 8:00 a.m. and 5:00 p.m. Central Time, to determine specific requirements.

CONGRESS REGISTRATION FEE \$ _____

ADDITIONAL TICKETED SESSIONS/EVENTS FEES \$ _____

MEMBERSHIP DUES \$ _____

TOTAL DUE \$ _____

CANCELLATION/REFUND POLICY Cancellations must be submitted in writing. All cancellations are subject to a \$75 non-refundable processing fee and must be postmarked prior to January 13, 2016, to be eligible for a refund. Any cancellation postmarked after this date will not be refunded. Exchanges and substitutions are not allowed at any time. Dates for the 45th Critical Care Congress are subject to change and/or cancellation. In the event of a change/cancellation, only individual registration fees will be reimbursed. Please allow four weeks to process refunds.

Registration Policies

Cancellation/Refund Policy
 Cancellations must be submitted in writing. All cancellations are subject to a \$75 nonrefundable processing fee, and must be postmarked prior to January 13, 2016, to be eligible for a refund. Any cancellation postmarked after this date will not be refunded. Exchanges and substitutions are not allowed at any time. Dates for the 45th Critical Care Congress are subject to change and/or cancellation. In the event of a cancellation, only individual registration fees will be reimbursed. Please allow four weeks to process refunds.

Congress tuition includes:

- Admission to all Congress sessions
- Online access to Congress On Demand (available post-Congress)
- Refreshment breaks in the Exhibit Hall
- Poster exhibits and Poster Hall Walk Rounds

Become an SCCM member and save!

Become an SCCM member or renew your membership today and save up to 25% off the nonmember Congress registration fee. Simply add your dues amount to the Congress registration form to take advantage of the SCCM member rates.

Membership Options/Dues

Physician - \$390

Healthcare Professionals - \$169
 Advanced practice nurses, registered nurses, pharmacists, physician assistants, respiratory therapists, scientists, and other healthcare professionals and industry personnel, excluding physicians

International Physicians* - \$266
 Physicians who reside outside the United States

Young Physicians* - \$205
 Physicians who have completed a fellowship training program within the last three years

In-Training* - \$90
 Current fellows, residents and students in specialty training programs or pursuing healthcare education

* International physician and in-training memberships do not include the right to make motions, vote or hold office. Consider full physician or healthcare professional membership. In-training and young physician registrants must include a verification letter with the registration form.

Hotel Accommodations

Take advantage of discounted Congress hotel rates by making your reservation through the SCCM Housing Bureau. Reserve your room online at www.sccm.org/Congress. The deadline for booking at the discounted SCCM rates is January 15, 2016.

Room reservations for all Congress hotels will be handled on a first-come, first-served basis. Room rates are quoted in USD and do not include any additional fees and applicable taxes. All reservations are subject to availability. For housing questions, including reservation changes or cancellations, please e-mail sccm@experient-inc.com or call +1 800 650-6928 (U.S. and Canada), +1 847 996-5896 (International), Monday through Friday between 8:00 a.m. and 5:00 p.m. Central Time.

Note: All official SCCM hotels listed below include complimentary WiFi in the guest rooms and are within walking distance of the Orange County Convention Center. The I-RIDE Trolley is also available for transportation between the hotels and convention center.

Congress Headquarters Hotel

- Hyatt Regency Orlando**
9801 International Drive
Rate: \$259 Single/Double

Features:

- ▲ Full-service business services
- ▲ 10 restaurant outlets
- ▲ Fitness center
- ▲ Three sparkling pools, including a lap-style swimming pool and outdoor cabanas
- ▲ Hard-top tennis court

Additional Congress Housing

- Embassy Suites Hotel**
8978 International Drive
Rate: \$230 Single/Double

- Hilton Orlando**
6001 Destination Parkway
Rate: \$249 Single/Double

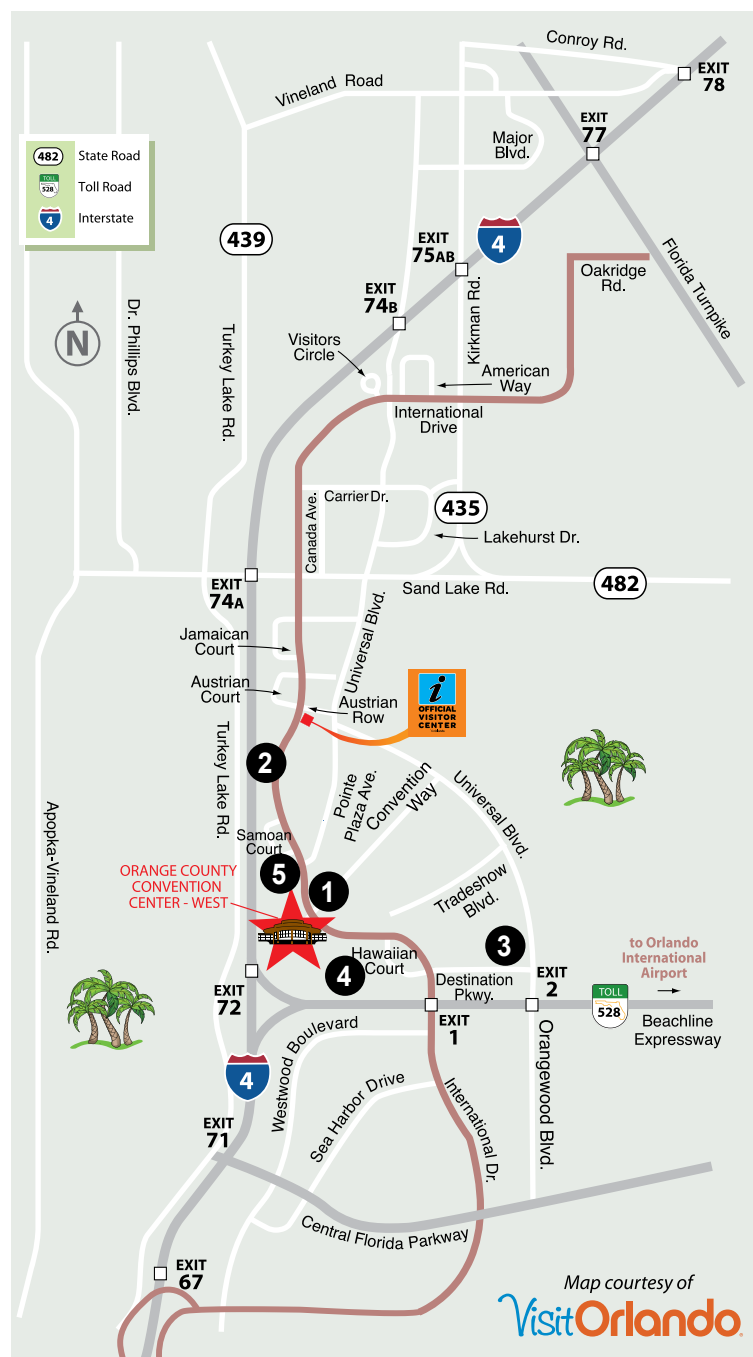
- Rosen Centre Hotel**
9840 International Drive
Rate: \$243 Single/Double

- Rosen Plaza Hotel**
9700 International Drive
Rate: \$233 Single/Double

ECMO Management Hotel

- Tampa Marriott Waterside Hotel & Marina**
700 South Florida Avenue
Tampa, Florida, USA
Rate: \$229 Single/Double

Hotel reservations for the ECMO Management course are being handled separately from Congress housing. To book your room in Tampa, visit <https://resweb.passkey.com/go/ECMO16> or call +1 800 228-9290 and identify yourself as an SCCM ECMO Management course participant. There will be limited bus transportation provided back to Orlando. Attendees are encouraged to book return air travel out of the Tampa International Airport. For additional hotel, transportation and travel details, visit www.sccm.org/Congress.



Air Travel

SCCM has arranged discounts up to 5% on airfare for travel to Orlando, Florida, for the 45th Critical Care Congress. For additional details, visit www.sccm.org/Congress.

United Airlines

Website: www.united.com
Email: groupmeetings@united.com
Phone: +1 800 426-1122
Discount Code: ZVK4558949

Note: Booking by phone will incur an additional \$25 service fee per ticket. Please allow 24 hours for email requests to be processed.

Delta Air Lines

Website: www.Delta.com
Phone: + 1 800 328-1111
Discount Code: NMLRV

Car Rental

SCCM has negotiated special car rental rates for Congress with Hertz. Discounted rates are available from all Florida locations for rental dates between February 12 and March 3, 2016. To receive the discounted rates, please refer to the information below.

Website: www.Hertz.com
Phone: +1 800 654-2240 (U.S. and Canada)
+1 405 749-4434 (International)
CV #: 050D0002

Airport Shuttle / Taxi Service

SuperShuttle

Shared ride shuttle service between Orlando International Airport (MCO) and Congress hotels is approximately \$18 each way per person. Use the discount code below to receive 10% off a round-trip shuttle.

Website: www.supershuttle.com
Phone: +1 800 258-3826
Discount Code: HRKZM

Discount valid online only. Online payment required. Gratuity not included.

ExecuCar

Upscale, private transportation between Orlando International Airport (MCO) and Congress hotels is approximately \$112 round-trip. Use the discount code below to receive 10% off a round-trip reservation.

Website: www.execucar.com
Phone: +1 800 258-3826
Discount Code: HRKZM

Discount valid online only. Online payment required. Gratuity not included.

Taxi Service

Taxi service is available from Orlando International Airport (MCO) to all Congress hotels. The approximate one-way cost is \$44 plus gratuity.

Website: www.mearstransportation.com/taxi-services
Phone: + 1 855 463-2776

Uber

Transportation around town as well as between the Orlando International Airport (MCO) and Congress hotels. Use the discount code below and receive \$20 off your first ride with Uber.

Website: www.uber.com/go/sccm
Discount Code: SCCM

Sightseeing Activities

SCCM is offering the following options for attendees who want to experience some of Central Florida's exciting theme park attractions.



Universal Orlando Parks

At Universal Orlando® Resort you'll find two spectacular theme parks, nonstop nightlife, and more, all in one convenient location. Experience the pulse-pounding thrills of Universal's Islands of Adventure®. Take a starring role in some of the biggest movies and TV shows ever created at Universal Studios®. And enjoy the best in restaurants, nightclubs, shopping, movies and more at Universal CityWalk®. It's an entire universe of action, fun and excitement that takes you where you never thought you'd go.

Purchase tickets online at <https://www.universalorlando.com/convention> and access special ticket options not available anywhere else!

Note: Pricing is subject to change without notice.

45th CRITICAL CARE CONGRESS: GUEST REGISTRATION FORM

February 20-24, 2016 ▲ Orange County Convention Center ▲ Orlando, Florida, USA

CHOOSE FROM FOUR EASY WAYS TO REGISTER:

1. Online at www.sccm.org/Congress
2. Call SCCM Customer Service at +1 847 827-6888
3. Fax the completed form to +1 847 493-6444
4. Mail the completed form to: 35083 Eagle Way, Chicago, IL 60678-1350 USA

Please use this form to register guests for the 45th Critical Care Congress. Please type or print clearly. Please keep a copy of this form for your records.

REGISTRANT INFORMATION

Last Name (Surname) _____ First _____ Middle Initial _____ Customer/Member # _____

Degrees/Credentials (ex.: ACNP, MD, PharmD, RN, RRT, etc.) _____ Gender: Male Female

Organization _____ Address _____

City _____ State _____ Zip/Postal Code _____

Country _____ Home Office Phone _____

Fax _____ Email _____

SPOUSE/GUEST REGISTRATION (If you need more space, please make a copy of this form.)

Spouse/guest registration is required for anyone over 18 years of age who will be participating in SCCM activities. Registration includes admission to the Exhibit Hall and an SCCM gift. Spouse/guest registration is \$25 per guest over 18 and does not include admission to any educational session.

Last Name (Surname) _____ First _____ Middle Initial _____ Gender: Male Female Over 18

Emergency Contact Name _____ Emergency Contact Phone Number _____

Last Name (Surname) _____ First _____ Middle Initial _____ Gender: Male Female Over 18

Emergency Contact Name _____ Emergency Contact Phone Number _____

Last Name (Surname) _____ First _____ Middle Initial _____ Gender: Male Female Over 18

Emergency Contact Name _____ Emergency Contact Phone Number _____

Last Name (Surname) _____ First _____ Middle Initial _____ Gender: Male Female Over 18

Emergency Contact Name _____ Emergency Contact Phone Number _____

Last Name (Surname) _____ First _____ Middle Initial _____ Gender: Male Female Over 18

Emergency Contact Name _____ Emergency Contact Phone Number _____

PAYMENT INFORMATION (Please send payment with registration form.)

Check (must be U.S. funds drawn on a U.S. bank) or International Money Order

Wire Transfer (Please contact SCCM Customer Service for wire transfer information.)

Credit Card: American Express Discover MasterCard Visa

Card Number _____ Expiration Date _____

Cardholder Name _____

Cardholder Signature _____ Date _____

TOTAL DUE \$ _____

If you require any special assistance related to a disability, diet or other needs, please contact SCCM Customer Service by e-mail at support@sccm.org or call +1 847 827-6888, Monday through Friday between 8:00 a.m. and 5:00 p.m. Central Time, to determine specific requirements.

Walt Disney World® Resort



©Disney

Special ticket offers and pricing are available to Critical Care Congress attendees and accompanying family or guests. Purchase exclusive afternoon (after 2:00 p.m. and after 4:00 p.m.) tickets and special discounted multiday tickets online at <http://www.mydisneymeetings.com/sccm2016> or by calling +1 407 566-5600. Multiday tickets include an additional complimentary admission to one of the following Disney Experiences:

- Disney's Typhoon Lagoon Water Park
- Disney's Blizzard Beach Water Park
- A round of golf at Disney's Winter Summerland or Fantasia Gardens Miniature Golf Courses (before 4:00 p.m.) or Disney's Oak Trail 9-hole Golf Course
- ESPN Wide World of Sports Complex (Special events excluded. Admission to general area only.)

Note: The cutoff date for advance purchase savings is February 19, 2016. If you choose to book a hotel at a Disney property, you will be responsible for your own daily transportation to/from the Orange County Convention Center located on International Drive.

The Society of Critical Care Medicine has 15 Specialty Sections to accommodate members of various professions and disciplines. Members may join up to three sections for unique opportunities to network with colleagues and become more involved in projects and initiatives while advancing the mission of the Society. For more information on joining a Specialty Section, visit www.sccm.org/membership.

Anesthesiology Section

Quality Metrics in Anesthesia & Critical Care

Since the shift of payment system from volume-based to value-based has taken place by the Centers for Medicare & Medicaid Services (CMS), numerous quality metrics have been introduced. These metrics are designed to measure performance and associate reimbursement through them.

Two types of quality metrics have proliferated during the last few years: process- and outcomes-based. A process metric focusses on improvement of a particular process to improve the eventual outcome. A perfect example of the same is timely delivery of antibiotics prior to incision to reduce surgical site infection as part of the Surgical Care Improvement Project (SCIP). Outcome metrics such as readmission within 30 days of discharge put the onus of improving the process on individual healthcare systems by recognizing differences in practices and problems.

Metrics focused on measurement of the anesthesia delivery process have so far been lacking. Associated metrics such as SCIP have been used as surrogates by most of the practices to measure performance.

Anesthesia Quality Institute (AQI) and the Multicenter Perioperative Outcomes Group (MPOG), with their approved data registries, are spearheading the process of development of anesthesia-focused quality metrics.

Currently, the metrics being proposed focus (in part) on improving the processes of transition of care, neuromuscular blockade monitoring and reversal, and reduction in postoperative nausea and vomiting.

Join us at the Anesthesiology Section's Year in Review at the 2016 Society of Critical Care Medicine Congress to learn more about these quality metrics and what you can do to stay ahead.

Osteopathic Medicine Section

As we prepare for the upcoming Society of Critical Care Medicine Critical Care Congress in Orlando, Florida, in February 2016, the Osteopathic Medicine Section will strive to make the meeting more interesting and relevant for fellow osteopathic physicians. While making your plans to attend Congress, here are a few of the projects being planned that you should be aware of:

- In order to encourage more visibility and participation by the section, we are planning to hold a reception for the Osteopathic Medicine Section members

and potential members. This will give the section an opportunity to freely interact and identify issues in a much more unimposing setting. This will also be a springboard to the discussion at the annual business meeting.

- In addition to the agenda of the business meeting, our hopes are to provide a small demonstration of osteopathic manipulation for the critically ill. It is hoped that this will become an annual part of the Osteopathic Medicine Section and become an official part of Congress with accredited AOA 1-A CME.
- The Osteopathic Medicine Section has continued to sponsor a \$500 travel grant to a first and presenting author of an accepted abstract to assist in travel to Congress for research projects that may be applicable to osteopathic principles.

On Oct. 4, 2015, in Chicago, Illinois, in conjunction with the Annual Clinical Assembly of Osteopathic Surgeons,

the American Osteopathic Board of Surgery offered component #3: Cognitive Assessment (formerly referred to as the Recertification Exam) for Osteopathic Continuous Certification for the certification of added qualification in Surgical Critical Care.

For questions about the section, contact Daniel Wu, DO, FACOS, FACS, Osteopathic Medicine Section Chair, at dwu2@lghealth.org.

Pediatrics Section

The Pediatrics Section Steering Committee has been busy planning for the 45th Society of Critical Care Medicine Critical Care Congress, to be held at the Orange County Convention Center in Orlando, Florida, from February 20-24, 2016! In addition to the excellent program content, we will plan on holding the annual Pediatrics Section Business Meeting, the

Section & Chapter News continued on p 34

StatStrip[®]
GLU

The only glucose meter cleared by the U.S. FDA for use with critically ill patients

In the last several years an unacceptably high number of adverse patient events and more than 16 deaths¹ have been traced to the use of glucose meters in hospitals in the U.S. The FDA has just announced that it now requires hospital meters to be designed for and tested on critically ill patients in order to be cleared for use in these patient populations. To date, only one meter, the Nova StatStrip Glucose Hospital Meter System has been found to be accurate enough to obtain this new FDA clearance.

StatStrip Glucose has been designed specifically to be free of clinical interferences that can be present in critically ill patients. The proof data submitted to the FDA included:

- 1,698 individual critical care patients from five university medical centers had StatStrip Glucose results paired with an IDMS traceable laboratory glucose reference method.
- Data from multiple intensive care settings representing 19 medical condition categories and 257 subcategories as designated by the World Health Organization were included.
- Over 8,000 medications representing 33 parent drug classes and 134 drug subclasses as designated by the United States Pharmacopeia were studied for possible clinical interferences; no clinical interferences were observed.

All other glucose meters currently in use with critically ill patients are now classified as "off-label" by the FDA and become subject to "high complexity testing" requirements under CMS². These requirements are so stringent that off label use of glucose meters on critically ill patients is not a practical alternative. Testing would not be performed by nurses, only by individuals degreed in laboratory medical technology.

1. DIABETES CARE, VOLUME 33, Number 4, April 2010.
2. Centers for Medicare & Medicaid Services.



StatStrip[®] Glucose Hospital Wireless Meter System
Now Available

nova
biomedical
novabiomedical.com

Pediatrics Section Year in Review, and the Pediatrics Section Reception. Keep your eyes out for more information to be coming soon via broadcast e-mail.

We will also be holding elections for several key positions (chair-elect and two members-at-large) on the Pediatrics Section Steering Committee. Trung Nguyen, MD, and Jana Stockwell, MD, FCCM, are eligible for re-election for the at-large positions. Tom Nakagawa, MD, FCCM, will move up to chair immediately following the section business meeting.

As always, please feel free to contact Derek S. Wheeler, MD, FCCM, Pediatrics Section Chair, at derek.wheeler@cchmc.org.

Physician Assistant Section

The Physician Assistant (PA) Section would like to thank all physician assistants for their hard work and positive contributions as vital members of the critical care team! In celebration of PA Week (Oct. 6-12), the PA Section hosted a webcast on "PA Day," Oct. 6, 2015. The topic of the webcast was crystalloids versus colloids. It was presented in a Lincoln-Douglas debate format. Section members William Holecek III, MS, PA-C, and Peter Sandor, RRT, MHS, PA-C, tackled this topic with PA Section Chair Ryan O'Gowan, MBA, PA-C, FCCM, moderating.

In our attempts to engage more members of our section, we have added two additional member-at-large positions and will be welcoming a new secretary/treasurer at the upcoming Society of Critical Care Medicine (SCCM) Critical Care Congress in Orlando, Florida. We would like to welcome all members to get involved and engage the PA Section leadership. Please let us know if you have ideas that could help improve our section and, in turn, benefit our members.

We encourage the use of the PA Section forum located in the SCCM eCommunity. To access the eCommunities, go to sccm.socius.com or go to MySCCM.org, log in, and click on the eCommunities tab. Members and non-members alike can participate in this forum (non-members will be prompted to register for free). Remember to select the PA Section as your primary section to receive regular updates on forum activity. More

active members within this forum will help ensure its usefulness as a communication tool.

Additionally, by choosing the PA Section as your primary section, it ensures you will receive up-to-date news on all official PA Section activities. To do this, edit your section elections in the "My Sections" tab on MySCCM.org.

Research Section

The Research Section has been active with multiple ongoing initiatives. Our members are busy planning a total of seven exciting sessions that have been accepted for the 2016 Society of Critical Care Medicine (SCCM) Critical Care Congress in Orlando, Florida, from February 20-24, 2016.

The section has continued to foster active exchange and discussion between designated "research" members of other SCCM Sections (e.g., Nursing, Clinical Pharmacy and Pharmacology, Internal Medicine, Pediatrics, and Neuroscience). We envision improved collaboration between all SCCM sections and improved integration of research endeavors across groups, improving effectiveness and scope and minimizing duplication of work. The Research Section is leading a Precision Medicine Task Force, which is co-chaired by Robert Stevens, MD, PhD, and Raghavan Murugan, MD, MS, FRCP. This important initiative is part of the SCCM Research Section Roadmap for Discovery Program. The goal is to deliver a white paper with recommendations on precision medicine research for improving, understanding and treatment of critical illness.

The section also has several active subcommittees: Basic and Translational Research (led by Basilia Zingarelli, MD, PhD), Clinical and Epidemiology Research (Marilyn Hravnak, RN, ACNP, PhD, FCCM), ICU Quality and Patient Safety Research (Michele Balas, RN, APRN-NP, CCRN, PhD), and Education and Simulation Research (Wan-Tsu W. Chang, MD). All section members are encouraged to join a subcommittee aligned with their interests to help further the great work being done in each group.

Ahmed Badr, MD, FACS, is leading a mentorship program to foster the development of the next generation of critical care researchers. If you are interested in participating as a mentor or mentee, please contact Dr. Badr at abadr@wpahs.org!

If you are interested in getting involved in any of these initiatives or subcommittees, please contact Section Chair Alejandro Rabinstein, MD, at rabinstein.alejandro@mayo.edu.

Surgery Section

Patient Safety - During Bedside Procedures

Never Events and Serious Reportable Events are defined as "adverse events that are serious, largely preventable, and of concern to both the public and health care providers." These Events (the kind of mistakes that should never happen in the field of medical treatment) fall into six categories: Surgical or Invasive Procedure Events, Product or Device Events, Patient Protection Events, Care Management Events, Environmental Events, and Potential Criminal Events (National Quality Forum).

The Surgical Section Patient Safety Committee is focusing on providing educational programs and materials on patient safety during bedside procedures in the intensive care unit (ICU) for a future Critical Care Congress. The committee has selected topics which include checklist usage, limiting noise and distraction, and the prevention of fires.

The committee will focus on: 1) The growth in checklist usage and the use of checklists during crises; 2) Providing awareness on reductions in the level of noise and distractions in order to create a safer environment for the patient and the procedural team; and 3) Enhancing team awareness regarding fire risk classification, assessment, prevention, and management.

Preventable medical decisions in our ICUs are associated with a culture that focuses on patient safety. The importance of being ever-vigilant during a bedside procedure is paramount. The implementation of tools and practice to reinforce this safety culture is an emphasis of this committee. ▲

CRITICAL CARE MEDICINE PHYSICIAN

Heal the sick, advance the science, share the knowledge.

The Department of Critical Care Medicine at Mayo Clinic in Phoenix, Arizona is seeking a fellowship-trained Critical Care Physician to join our team.

This full-time, academic position involves active participation in education, research, and the clinical practice. Candidates must have a strong commitment to an academic career in critical care medicine.

Qualified candidates must be ABA, ABEM, ABIM, or ABS critical care medicine board-certified or board-eligible. Candidates' residency training may be in anesthesia, emergency medicine, internal medicine, or surgery.

Mayo Clinic is ranked number one in more specialties than any other hospital in the nation for 2015-2016 by *U.S. News and World Report*. Our multi-disciplinary group practice focuses on providing high quality, compassionate medical care. We are the largest integrated, not-for-profit medical group practice in the world with approximately 3,800 physicians and scientists across all locations working in a unique environment that brings together the best in patient care, groundbreaking research and innovative medical education. We offer a highly competitive compensation package, which includes exceptional benefits, and have been recognized by *FORTUNE* magazine as one of the top 100 "Best Companies to Work For".

To apply online, please visit: mayocareers.com/SCCM



Listen to the Latest iCritical Care Podcasts

iCritical Care offers a wide selection of in-depth interviews on adult and pediatric topics. Gain unique perspectives as hosts chat with authors of the latest *Critical Care Medicine* and *Pediatric Critical Care Medicine* articles, well-known speakers and prominent SCCM members.

Visit www.sccm.org/iCriticalCare to listen and subscribe.

Latest iCritical Care Podcast releases:

- SCCM Pod-298: Critical Care Organizations in Academic Medical Centers in North America: A Descriptive Report
- SCCM Pod-297: Extubation Failure in the Pediatric Cardiac ICU: A Report From the Pediatric Cardiac Critical Care Consortium
- SCCM Pod-296: Guidelines for the Appropriate Use of Bedside General and Cardiac Ultrasonography
- SCCM Pod-295: Development and Validation of a Mortality Prediction Model for Patients Receiving 14 Days of Mechanical Ventilation
- SCCM Pod-294: Practice Patterns in Pediatric Critical Care Medicine



KCENTRA® (Prothrombin Complex Concentrate [Human])
For Intravenous Use, Lyophilized Powder for Reconstitution
Initial U.S. Approval: 2013

BRIEF SUMMARY OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Kcentra safely and effectively. See full prescribing information for Kcentra.

WARNING: ARTERIAL AND VENOUS THROMBOEMBOLIC COMPLICATIONS
Patients being treated with Vitamin K antagonists (VKA) therapy have underlying disease states that predispose them to thromboembolic events. Potential benefits of reversing VKA should be weighed against the potential risks of thromboembolic events, especially in patients with the history of a thromboembolic event. Resumption of anticoagulation should be carefully considered as soon as the risk of thromboembolic events outweighs the risk of acute bleeding.

- **Both fatal and non-fatal arterial and venous thromboembolic complications have been reported with Kcentra in clinical trials and post marketing surveillance. Monitor patients receiving Kcentra for signs and symptoms of thromboembolic events.**
- **Kcentra was not studied in subjects who had a thromboembolic event, myocardial infarction, disseminated intravascular coagulation, cerebral vascular accident, transient ischemic attack, unstable angina pectoris, or severe peripheral vascular disease within the prior 3 months. Kcentra may not be suitable in patients with thromboembolic events in the prior 3 months.**

-----**INDICATIONS AND USAGE**-----

Kcentra, Prothrombin Complex Concentrate (Human), is a blood coagulation factor replacement product indicated for the urgent reversal of acquired coagulation factor deficiency induced by Vitamin K antagonist (VKA, e.g., warfarin) therapy in adult patients with:

- acute major bleeding or
- need for an urgent surgery/invasive procedure.

-----**DOSAGE AND ADMINISTRATION**-----

For intravenous use only

- Kcentra dosing should be individualized based on the patient's baseline International Normalized Ratio (INR) value, and body weight.
- Administer Vitamin K concurrently to patients receiving Kcentra to maintain factor levels once the effects of Kcentra have diminished.
- The safety and effectiveness of repeat dosing have not been established and it is not recommended.
- Administer reconstituted Kcentra at a rate of 0.12 mL/kg/min (~3 units/kg/min) up to a maximum rate of 8.4 mL/min (~210 units/min.).

Pre-treatment INR	2 – < 4	4 – 6	> 6
Dose* of Kcentra (units† of Factor IX) / kg body weight	25	35	50
Maximum dose‡ (units of Factor IX)	Not to exceed 2500	Not to exceed 3500	Not to exceed 5000

* Dosing is based on body weight. Dose based on actual potency as stated on the carton, which will vary from 20-31 Factor IX units/mL after reconstitution. Nominal potency is 500 or 1000 units per vial, approximately 25 units per mL after reconstitution.

† Units refer to International Units.

‡ Dose is based on body weight up to but not exceeding 100 kg. For patients weighing more than 100 kg, maximum dose should not be exceeded.

-----**DOSAGE FORMS AND STRENGTHS**-----

- Kcentra is available as a single-use vial containing coagulation Factors II, VII, IX and X, and antithrombotic Proteins C and S as a lyophilized concentrate.

-----**CONTRAINDICATIONS**-----

Kcentra is contraindicated in patients with:

- Known anaphylactic or severe systemic reactions to Kcentra or any components in Kcentra including heparin, Factors II, VII, IX, X, Proteins C and S, Antithrombin III and human albumin.
- Disseminated intravascular coagulation.
- Known heparin-induced thrombocytopenia. Kcentra contains heparin.

-----**WARNINGS AND PRECAUTIONS**-----

- Hypersensitivity reactions may occur. If necessary, discontinue administration and institute appropriate treatment.
- Arterial and venous thromboembolic complications have been reported in patients receiving Kcentra. Monitor patients receiving Kcentra for signs and symptoms of thromboembolic events. Kcentra was not studied in subjects who had a thrombotic or thromboembolic (TE) event within the prior 3 months. Kcentra may not be suitable in patients with thromboembolic events in the prior 3 months.
- Kcentra is made from human blood and may carry a risk of transmitting infectious agents, e.g., viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent, and theoretically, the Creutzfeldt-Jakob disease (CJD) agent.

-----**ADVERSE REACTIONS**-----

- The most common adverse reactions (ARs) (frequency ≥2.8%) observed in subjects receiving Kcentra were headache, nausea/vomiting, hypotension, and anemia.
- The most serious ARs were thromboembolic events including stroke, pulmonary embolism, and deep vein thrombosis.

To report SUSPECTED ADVERSE REACTIONS, contact CSL Behring at 1-866-915-6958 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

-----**USE IN SPECIFIC POPULATIONS**-----

Pregnancy: No human or animal data. Use only if clearly needed.

Based on September 2014 version.

**WHEN PATIENTS
NEED URGENT
WARFARIN
REVERSAL...**

**EVERY
MOMENT
COUNTS**

Kcentra—the First and Only 4-Factor Prothrombin Complex Concentrate (4F-PCC) for Urgent Warfarin Reversal

Kcentra

Important Safety Information

Kcentra is a blood coagulation factor replacement product indicated for the urgent reversal of acquired coagulation factor deficiency induced by Vitamin K antagonist (VKA—eg, warfarin) therapy in adult patients with acute major bleeding or the need for urgent surgery or other invasive procedure. Kcentra is for intravenous use only.

WARNING: ARTERIAL AND VENOUS THROMBOEMBOLIC COMPLICATIONS

Patients being treated with Vitamin K antagonist therapy have underlying disease states that predispose them to thromboembolic events. Potential benefits of reversing VKA should be weighed against the risk of thromboembolic events, especially in patients with history of such events. Resumption of anticoagulation therapy should be carefully considered once the risk of thromboembolic events outweighs the risk of acute bleeding. Both fatal and nonfatal arterial and venous thromboembolic complications have been reported in clinical trials and postmarketing surveillance. Monitor patients receiving Kcentra, and inform them of signs and symptoms of thromboembolic events. Kcentra was not studied in subjects who had a thromboembolic event, myocardial infarction, disseminated intravascular coagulation, cerebral vascular accident, transient ischemic attack, unstable angina pectoris, or severe peripheral vascular disease within the prior 3 months. Kcentra might not be suitable for patients with thromboembolic events in the prior 3 months.

Kcentra is contraindicated in patients with known anaphylactic or severe systemic reactions to Kcentra or any of its components (including heparin, Factors II, VII, IX, X, Proteins C and S, Antithrombin III and human albumin). Kcentra is also contraindicated in patients with disseminated intravascular coagulation. Because Kcentra contains heparin, it is contraindicated in patients with heparin-induced thrombocytopenia (HIT).

Hypersensitivity reactions to Kcentra may occur. If patient experiences severe allergic or anaphylactic type reactions, discontinue administration and institute appropriate treatment.

In clinical trials, the most frequent ($\geq 2.8\%$) adverse reactions observed in subjects receiving Kcentra were headache, nausea/vomiting, hypotension, and anemia. The most serious adverse reactions were thromboembolic events, including stroke, pulmonary embolism and deep vein thrombosis.

Kcentra is derived from human plasma. The risk of transmission of infectious agents, including viruses and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent, cannot be completely eliminated.

The safety and efficacy of Kcentra in pediatric use have not been studied, and Kcentra should be used in women who are pregnant or nursing only if clearly needed.

Please see brief summary of full prescribing information on reverse.

Kcentra—Ready When You Need It

- The first and only non-activated 4F-PCC for urgent warfarin reversal in adult patients with:
 - Acute major bleeding or
 - Need for an urgent surgery/invasive procedure
- Mean infusion time ~7x faster than plasma
- Requires ~85% less volume than plasma
- Safety profile comparable to plasma

Kcentra has over 15 years of clinical experience as Beriplex® outside the US.

www.Kcentra.com

**Kcentra Hotline: 1-855-4KCENTRA
(1-855-452-3687)**

Kcentra®
Prothrombin Complex
Concentrate (Human)

Urgent Warfarin Reversal