

23rd Annual Advances in Physiology and Pharmacology in Anesthesia and Critical Care

WAKE UP dates

November 11, 2017 \ Workshops

November 11–14, 2017 \ General Session

The Westin Hilton Head Island Resort & Spa
Hilton Head Island, S.C.



Welcome to the 23rd annual meeting of Advances in Physiology and Pharmacology in Anesthesia and Critical Care presented by the Department of Anesthesiology of Wake Forest School of Medicine. We have an outstanding faculty that will present current information of scientific and clinical importance. These presentations will aid in the understanding of new techniques, equipment and patient management issues facing today's practitioners of anesthesia and critical care medicine. We provide time for discussion, questions and answers after each series of lectures. You also have the opportunity to attend an Airway Workshop or participate in an Ultrasound Vascular Access Workshop. Furthermore, our popular special lectures on Saturday and Sunday evenings provide an opportunity for you and your guest to hear renowned speakers on interesting national issues.



Kenneth E. Nelson, MD
Director, Program Committee

Target Audience

This course will provide expert knowledge on innovative/basic physiologic principles and pharmacologic techniques for physicians, resident physicians, nurse anesthetists and student nurse anesthetists, as well as pharmacologists, pharmacists and other health care providers.

Accreditation

The Wake Forest School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Registration

To register online, go to www.nwahec.org/52018. If paying by check, please mail the registration form and check to the Office of Continuing Medical Education, Wake Forest School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157-1028. Checks should be made payable to Wake Forest University Health Sciences. For further information, call Pam Martin at 336-716-2712 or email Pam at pdmartin@wakehealth.edu.

Cancellation Policy

The registration cancellation deadline is Friday, Sept. 29, 2017, beyond which no refunds will be issued. Meeting cancellation must be received in writing by Sept. 29, 2017, in order to receive a full refund less a \$75 administrative charge. Hotel reservations must be cancelled five business days prior to arrival; failure to cancel forfeits your deposit.

Course Goals and Objectives

This course will provide state-of-the-art information regarding the physiology of various disease states, newer anesthetic techniques and updated modes of therapy.

At the conclusion of the general session, the participant should be better able to:

- Illustrate the cardiovascular and pulmonary physiologic extremes faced by elite athletes in a variety of environments.
- Differentiate the changes in permanent pacemaker function and analyze how anesthetic techniques need to be modified.
- Define the specific anesthetic needs for patients who are prone to bronchospasm.
- Recognize the unique features and challenges of thoracic endovascular aortic aneurysm repair (TEVAR) and determine the best anesthetic technique for these patients.
- Identify hypertensive patients at risk for perioperative complications and formulate a plan to minimize morbidity.
- Contrast the various strategies for blood conservation in order to choose the most appropriate therapies.
- Manage the complex physiologic needs of patients with congenital heart disease.
- Recognize the clinical implications of marijuana use now that it is becoming increasingly legal in the United States.
- Formulate a plan for avoiding anesthetic complications in patients on antiplatelet therapy.
- Recognize the most important pitfalls that could lead to misadventure with professional licensing boards.
- Describe recent advances in pharmacology and technology while constructing ways to improve anesthetic safety.
- Review commonly encountered controversies related to induction, emergence and anesthetic exposure facing providers caring for children.
- Solve challenging problems related to care at different stages of development and apply novel approaches to enhance delivery of care in children.
- Describe the changing role and current clinical application of the genetics of drug metabolism as applied to the pediatric patient.
- Explain the role of intraoperative blood pressure management in the development and prevention of cerebral or spinal stroke.
- Analyze the most important clinical strategies while anesthetizing neurosurgical patients.
- Evaluate the consequences of chronic kidney disease on perioperative management.
- Discuss the potential impacts of hyperchloremia on patient outcomes, and describe the potential benefits of using balanced salt solutions.
- Utilize a variety of truncal blocks to provide adjunctive regional anesthesia.
- Apply ultrasound technology to a variety of clinical scenarios in anesthetic practice.
- Differentiate best practices for evaluating the depth of anesthesia.
- Describe current recommendations for treatment of LAST.
- Determine best practices and potential challenges presented by the opioid-dependent patient.

Physician Credit

The Wake Forest School of Medicine designates this live activity for a maximum of 24.5 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

General Session: A maximum of 19.25 *AMA PRA Category 1 Credits™*

Airway Workshop: Ancillary Tools and Adjuncts: A maximum of 3 *AMA PRA Category 1 Credits™*

Ultrasound Vascular Access Workshop: A maximum of 2.25 *AMA PRA Category 1 Credits™*

CRNA Credit

General Session: This program has been prior approved by the American Association of Nurse Anesthetists for 19.25 Class A CE credits; Code Number 1034747; Expiration Date, Nov. 14, 2017.

Airway Workshop: Ancillary Tools and Adjuncts: This program has been prior approved by the American Association of Nurse Anesthetists for 3 Class A CE credits; Code Number 1034683; Expiration Date, Nov. 11, 2017.

Ultrasound Vascular Access Workshop: This program has been prior approved by the American Association of Nurse Anesthetists for 2.25 Class A CE credits; Code Number 1034685; Expiration Date, Nov. 11, 2017.

Conflict of Interest Policy

It is the policy of Wake Forest School of Medicine to require disclosure of any significant financial interest or any other relationship a faculty member or planning committee member has with the manufacturer(s) of any commercial products or services discussed in an educational presentation. This information can be found in the syllabus.

Special Needs

Wake Forest School of Medicine adheres to the Americans with Disabilities Act. Please report to the Department of Anesthesiology at 336-716-2712 any special needs you may have for participation in and/or access to this educational activity.

Location and Resort Information

Hilton Head Island is one of the premier beach resort islands in the United States. Located off the southernmost tip of South Carolina, it has over 12 miles of sandy beaches, world-class golf and tennis facilities, and is suffused with the warm southern hospitality of the Carolina low country.

The Westin is located on a stretch of sugar-white sand along the Atlantic Ocean. Relax on the sandy beaches as you feel the warm ocean breezes, challenge yourself at one of the three Port Royal championship golf courses, play an invigorating match on the award-winning tennis courts, take a bicycle ride along the beaches of the Atlantic, relax by one of the pools or revitalize your spirit at the Heavenly Spa by Westin™. When it comes time to nourish your body, dine where low-country style meets high cuisine at Oceans or the Carolina Cafe. Hilton Head Island boasts more than 250 restaurants representing a wide variety of cultures and tastes.

To book your Heavenly Spa by Westin services, contact the Westin Resort and Spa at 843-681-1019 or visit www.westinhiltonheadisland.com/spa-in-hilton-head.

Accommodations

Book your Westin reservations 24/7 online at www.starwoodmeeting.com/Book/GJ9CSY1B or by calling 800-937-8461.



Room reservations must be made prior to 5 pm,

Monday, October 16, 2017, to guarantee the WFSM discounted room rate. Resort check-in is at 4 pm and check-out is at noon. These special rates are valid three days prior to and three days after the conference based on availability at the time of reservation. Please mention **Wake Forest Conference** when booking by telephone. A credit card is required for confirmation of reservation with one night's deposit.

Resort View Room	\$195 per night*
Ocean View Room	\$219 per night*

* Additional charges include local taxes (10%), and a tourism fee of \$2 per night. Resort charges \$25 each for third and fourth guest sharing a room (excluding children under 18). An early departure fee of one night's room and tax will apply if group attendee checks out prior to the confirmed checkout date. Cancellation policy is five days prior to arrival. A charge of one night's room and tax will be charged for any cancellations within five days of arrival.

Travel

The Westin Hilton Head Island is conveniently located off SC I-95, exit 8. A 16-mile drive along highway 278 East will get you onto the island. If using a GPS device to locate the main entrance to The Westin, please enter 2 Grasslawn Ave., Hilton Head Island, SC, 29928 as the street address.

Airlines

The Westin is located 45 minutes from the Savannah-Hilton Head International Airport (SAV) and a short 10-minute drive from Hilton Head Island Airport (HHH). Major airlines serve Savannah-Hilton Head International, whereas select regional carriers fly into the Hilton Head Island Airport. Please contact Pam Martin at 336-716-2712 or pdmartin@wakehealth.edu for additional information.



Workshops Limited Space

Ultrasound Vascular Access Workshop

J. Wells Reynolds, MD, Director

Saturday, November 11, 2017

9:30–9:45 am Registration

9:45 am–Noon Ultrasound Vascular Access Workshop

Ultrasound technology has made it possible to image and identify veins, arteries and neural structures that can facilitate safe and rapid vascular access in the difficult patient. This workshop is designed to provide education and skills training to medical personnel who are tasked with vascular cannulation. From routine central venous catheter placement to challenging peripheral intravenous and arterial line establishment, the ultrasound is a valuable tool.

Objectives

At the conclusion of this workshop, the participant should be better able to:

- Identify the appearance of veins. They will learn the basic functions of an ultrasound machine.
- Identify the four probe movements that optimize image acquisition for arterial line access.
- Use ultrasound training molds to allow guidance of needles in both the short and long axis.
- Image central venous targets and recognize the appearance of a clot.
- Acknowledge the pathophysiologic changes that increase vascular cannulation failures and how to improve success in challenging patients.

Airway Workshop: Ancillary Tools and Adjuncts

Scott A. Miller, MD, Director

Saturday, November 11, 2017

12:30–1 pm Registration

1–4 pm Airway Workshop

The airway workshop will allow participants to get the most up-to-date information on current alternative airway tools. Participants will get hands-on experience with video laryngoscopy, fiber-optic laryngoscopy, the intubating light wand and the intubating LMA. The Wake Forest School of Medicine faculty selected to lead this workshop are very experienced using all of these tools.

Objectives

At the conclusion of this workshop, the participant should be better able to:

- Identify the overall context alternative airway tools have in overall airway management.
- Describe the indications, contraindications and mechanics required for successful lightwand intubation.
- Recognize the pearls and pitfalls associated with fiber-optic endotracheal intubation.
- Demonstrate with the fiber-optic scope to facilitate motor memory and enhance the participant's ability to deftly manipulate the fiber-optic scope.
- Discuss pearls and pitfalls to using the ILMA. Participants will be able to describe the indications, contraindications and mechanics of using the ILMA.
- Learn how to deftly manipulate three different types of videolaryngoscopes.

Saturday, November 11, 2017

Workshops

- 9:30–9:45 am Registration
9:45–Noon **Ultrasound Vascular Access Workshop**
12:30–1 pm Registration
1–4 pm **Airway Workshop**

General Session

- 4:15–5:15 pm Registration
5:15–6:30 pm **Special Lecture – Welcome and Introduction: Kenneth E. Nelson, MD**
Rio 2016! A Report from Team USA's Sports Physiologist
Randall L. Wilber, PhD, FACSM
6:30–7:30 pm Welcome Reception
(Spouses/Guests are invited to Special Lecture and Welcome Reception)

Sunday, November 12, 2017

- 6:15 am Registration/Continental Breakfast

Session 1: Thoracic Park

Drew A. MacGregor, MD, Moderator

- 7–7:35 am The Latest on Pacemakers and ICDs
Roger L. Royster, MD
7:35–8:10 am Perioperative Considerations for the Patient with Bronchospasm
Robert N. Sladen, MBChB, FCCM
8:10–8:45 am State of the Art Review of TEVAR
Wanda M. Popescu, MD
8:45–9:15 am Question & Answer
9:15–9:30 am Break

Session 2: Critical Patients and Critical Care

Benjamin N. Morris, MD, Moderator

- 9:30–10:05 am Perioperative Considerations for the Patient with Hypertension
Robert N. Sladen, MBChB, FCCM
10:05–10:40 am The Latest on Blood Conservation Strategies
Bryant A. Murphy, MD, MBA
10:40–11:15 am Management of Patients with Congenital Heart Defects
Eduardo Goenaga-Diaz, MD
11:15–Noon Question & Answer
5–6:30 pm **Special Lecture – Introduction: Douglas G. Ririe, MD, PhD**

On the Front Line: Marijuana in Colorado
Jeffrey L. Galinkin, MD, FAAP

Monday, November 13, 2017

- 6:30 am Registration/Continental Breakfast

Session 3: Improving Safety and Outcomes

Douglas G. Ririe, MD, PhD, Moderator

- 7–7:35 am Perioperative Management of Antiplatelet Therapy
Wanda M. Popescu, MD
7:35–8:10 am Licensing Boards: How to Stay Out of Trouble
Bryant A. Murphy, MD, MBA
8:10–8:45 am Why Normal Saline is Bad for our Patients
Drew A. MacGregor, MD
8:45–9:15 am Question & Answer
9:15–9:30 am Break

Monday, November 13 (continued)

Session 4: Contemporary Issues in Pediatric Anesthesia

J. Wells Reynolds, MD, Moderator

- 9:30–10:05 am Current Controversies in Pediatric Anesthesia
Jeffrey L. Galinkin, MD, FAAP
- 10:05–10:40 am Challenges and Game Changers in Children
Douglas G. Ririe, MD, PhD
- 10:40–11:15 am Practical Pharmacogenomics for the Anesthetist
Jeffrey L. Galinkin, MD, FAAP
- 11:15–Noon Question & Answer

Session 5: Insights, Innovations and Interventions

Kenneth E. Nelson, MD, Moderator

- 4:30–5:05 pm The Role of Blood Pressure Management and Cerebral or Spinal Stroke
Joseph M. Neal, MD
- 5:05–5:40 pm Neuroanesthesia for the Occasional Neuroanesthetist
Scott Miller, MD
- 5:40–6:15 pm Perioperative Considerations for the Patient with Chronic Kidney Disease
Robert N. Sladen, MBChB, FCCM
- 6:15–6:45 pm Question & Answer

Tuesday, November 14, 2017

6:30 am Registration/Continental Breakfast

Session 6: Top Fives

John A. Thomas, MD, Moderator

- 7–7:35 am Five Hottest Topics in OB Anesthesia
Kenneth E. Nelson, MD
- 7:35–8:10 am Five Ways to Use Truncal Blocks
J. Wells Reynolds, MD
- 8:10–8:45 am Five More Uses for Ultrasound in Your Practice
Benjamin N. Morris, MD
- 8:45–9:15 am Question & Answer
- 9:15–9:30 am Break

Session 7: Pearls, Pitfalls, and Progress

Scott A. Miller, MD, Moderator

- 9:30–10:05 am Depth of Anesthesia Monitoring
Quinn McCutchen, MD
- 10:05–10:40 am Updates on LAST
Joseph M. Neal, MD
- 10:40–11:15 am Perioperative Management of the Opioid-dependent Patient
Amber K. Brooks, MD
- 11:15–Noon Question & Answer
- Noon Adjourn

Guest Faculty

Jeffrey L. Galinkin, MD, FAAP
Professor of Anesthesiology and Pediatrics
University of Colorado, AMC

Bryant A. Murphy, MD, MBA
Associate Professor
Vice Chair Clinical Operations
Division Chief – Specialty Anesthesia Care
UNC School of Medicine – Department of Anesthesiology

Joseph M. Neal, MD
Anesthesiology Faculty
Virginia Mason Medical Center
Clinical Professor of Anesthesiology
University of Washington

Wanda M. Popescu, MD
Associate Professor of Anesthesiology
Director, Thoracic and Vascular Section
Director Grand Rounds
Yale University School of Medicine

Robert N. Sladen, MBChB, FCCM
Allen Hyman Professor Emeritus of Critical Care
Anesthesiology at Columbia University Medical Center
College of Physicians & Surgeons of Columbia University

Randall L. Wilber, PhD, FACSM
Senior Sport Physiologist
United States Olympic Committee



Randall L. Wilber, PhD, FACSM

Faculty

Wake Forest School of Medicine Department of Anesthesiology

Amber K. Brooks, MD
Assistant Professor

Angela F. Edwards, MD
Associate Professor

Eduardo Goenaga-Diaz, MD
Assistant Professor

Drew A. MacGregor, MD
Professor

Quinn McCutchen, MD
Associate Professor

Scott A. Miller, MD
Associate Professor

Benjamin N. Morris, MD
Assistant Professor

Kenneth E. Nelson, MD
Associate Professor

J. Wells Reynolds, MD
Assistant Professor

Douglas G. Ririe, MD, PhD
Professor

Roger L. Royster, MD
Professor and Vice Chairman

John A. Thomas, MD
Associate Professor

Registration Form (Print clearly)

Advances in Physiology and Pharmacology in Anesthesia and Critical Care

November 11–14, 2017

Name _____

MD CRNA Other (specify) _____

Name badge should read _____

Last 4 digits of SS# (required) _____ AANA # (required) _____

Institution _____

Address _____ Home Office

City/State/Zip _____

Email (required) _____

Daytime Phone _____

Workshops			
		By Sept. 29	After Sept. 29
Sat. Nov. 11 9:45 am–Noon	<input type="checkbox"/> Ultrasound Vascular Access Workshop <i>(limited to 20)</i>	\$240	\$290
Sat. Nov. 11 1–4 pm	<input type="checkbox"/> Airway Workshop: Ancillary Tools and Adjuncts <i>(limited to 20)</i>	\$340	\$390
General Session			
Nov. 11–14	<input type="checkbox"/> Physicians	\$710	\$760
	<input type="checkbox"/> Nurse Anesthetists and Other Medical Professionals	\$670	\$715
	<input type="checkbox"/> Residents and Student Nurse Anesthetists <i>(letter from program director required)</i>	\$200	\$225
Total Fee(s) Enclosed			

Two ways to register:

1. Online: www.nwahec.org/52018
2. Mail to: Office of Continuing Medical Education
Wake Forest School of Medicine
Medical Center Boulevard, Winston-Salem, NC 27157-1028
Make check payable to: Wake Forest University Health Sciences

For general meeting information, contact Pam Martin at 336-716-2712 or by email, pdmartin@wakehealth.edu

Early Registration and Cancellation Deadline: Friday, September 29, 2017