

21st Annual SAFAR SYMPOSIUM

DAY 1

Thursday April 25th, 2024 | 8:00 am to 5:30 pm | University Club
Continuum of Care in the Treatment of
Hypoxic Ischemic Insults - 2024 Update

43rd Peter & Eva Safar Lecture for the
Sciences and Humanities

Clifton Callaway, MD, PhD

Distinguished Professor
Executive Vice Chair of Emergency Medicine
University of Pittsburgh

Impact of Withdrawal of Life Support on Resuscitation Science



DAY 2

Friday April 26th, 2024 | 8:00 am to 12:00 pm | WISER
Simulation and Patient Safety

21st Annual Safar Symposium

April 25, 2024

University Club, Ballroom B – 123 University Place

- 7:30 Registration and Continental Breakfast
- 8:00 – 11:45 **CONTINUUM OF CARE IN THE TREATMENT OF HYPOXIC ISCHEMIC INSULTS: 2024 UPDATE**
- Moderators:**
- Jonathan Elmer, MD, MS**
Associate Professor of Emergency Medicine, Critical Care Medicine, and Neurology
Director, UPMC Organ Donor Support Service
University of Pittsburgh School of Medicine, Pittsburgh, PA
- Dennis W. Simon, MD**
Assistant Professor, Critical Care Medicine and Pediatrics
Associate Director, Safar Center for Resuscitation Research
UPMC Children’s Hospital of Pittsburgh, Pittsburgh, PA
- 8:00 – 8:15 **Opening Comments**
Patrick M. Kochanek, MD, MCCM
Distinguished Professor and Vice Chair, Critical Care Medicine
Director, Safar Center for Resuscitation Research
University of Pittsburgh School of Medicine, Pittsburgh, PA
- 8:15 – 8:40 **Abbot Laptook, MD**
Professor of Pediatrics, Warren Alpert Medical School of Brown University
Division of Neonatal-Perinatal Medicine
Women and Infants Hospital of Rhode Island
Treatment for Neonatal Hypoxic-Ischemic Encephalopathy: Hypothermia and Beyond
- 8:40 – 8:45 Discussion

- 8:45 – 9:10 **Jed A. Hartings PhD**
 Professor, Department of Neurosurgery
 University of Cincinnati
Role of Spreading Depolarization in Hypoxic-Ischemic Brain Injury after Cardiac Arrest
- 9:10 – 9:15 Discussion
- 9:15 – 9:40 **Eng Lo, PhD**
 Professor of Neurology and Radiology
 Harvard Brain Science Initiative
 Harvard University
 Massachusetts General Hospital
Time is Brain (Again): Circadian Biology and Stroke
- 9:40 – 9:45 Discussion
- 9:45 – 10:00 BREAK
- 10:00 – 10:25 **Ericka L. Fink, MD, MS, FCCM**
 Professor, Division of Pediatric Critical Care Medicine,
 Pediatrics, and Clinical and Translational Science
 Associate Director, Safar Center for Resuscitation Research
 Research Director, PCCM Fellowship
 Director, Critical Illness Recovery for ChiLdrEn (CIRCLE)
 Program
 UPMC Children’s Hospital of Pittsburgh
Pediatric Resuscitation—Biomarkers, Imaging, Social Determinants of Health, and Outcomes
- 10:25 – 10:30 Discussion
- 10:30 – 10:55 **Beth Slomine, PhD, ABPP**
 Assistant Vice President, Psychology
 Co-Director, Brain Injury Clinical Research Center
 Kennedy Krieger Institute
 Professor, Psychiatry and Behavioral Sciences
 Johns Hopkins School of Medicine
Functional Recovery During Rehabilitation of Children with Hypoxic Ischemic Brain Injury

- 10:55 – 11:00 Discussion
- 11:00 -11:25 **Caitlin McNamara, MD**
Clinical Instructor, Pediatric Critical Care Medicine
UPMC Children's Hospital of Pittsburgh
NIH T32 Post-Doctoral Scholar
Safar Center for Resuscitation Research, University of
Pittsburgh, Pittsburgh, PA
Hypoxic Ischemic Brain Injury in Abusive Head Trauma
- 11:25 – 11:30 Discussion
- 11:30 – 11:45 **Nancy Caroline Fellow Award and the S. William Stezoski
Technician Award Presentations and
Morning Session Closing Remarks
Patrick M. Kochanek, MD, MCCM**
- 11:45 – 12:00 BREAK
- 12:00 – 1:00 **43rd Peter and Eva Safar Annual Lectureship in Medical
Sciences and Humanities
Clifton W Callaway, MD, PhD**
Distinguished Professor and Executive Vice Chair
Department of Emergency Medicine
University of Pittsburgh School of Medicine
***Impact of Withdrawal of Life Support on Resuscitation
Science***
- 1:00 – 1:45 Reception
Ballroom B, University Club

The 43rd Peter and Eva Safar Annual Lectureship in Medical Sciences and Humanities

Guest Speaker: **Clifton W. Callaway, MD, PhD**
Distinguished Professor and Executive Vice Chair
Department of Emergency Medicine
University of Pittsburgh School of Medicine
Pittsburgh, PA

Topic: ***Impact of Withdrawal of Life Support on Resuscitation Science***



Dr. Clifton W. Callaway is Distinguished Professor, Vice-Chair, and Ronald D. Stewart Endowed Chair in Emergency Medicine Research at the University of Pittsburgh School of Medicine. He completed his MD and PhD in Neuroscience at the University of California, San Diego, followed by residency in Emergency Medicine at the University of Pittsburgh. He has conducted basic laboratory investigations about

cardiac resuscitation and about brain recovery after cardiac arrest. With his partners in Pittsburgh, he developed a multidisciplinary clinical service to advance the care of patients after cardiac arrest, primarily by improving measurement and treatment of brain injury after cardiac arrest. The focus of this program has been that post-arrest patients require a multidisciplinary, multiorgan, and personalized approach. Callaway helps lead the clinical coordinating center for SIREN, a National Institutes of Health emergency research trial network of more than 75 medical centers designated to conduct clinical trials in acute care. Current SIREN clinical trials test treatments for traumatic brain injury, and adult and pediatric cardiac arrest. Callaway is past chair of the American Heart Association Emergency Cardiovascular Care Committee (2015-2017), and past co-chair of the ILCOR Advanced Life Support Committee (2012-2016). He has contributed to advanced cardiac life support guidelines since 2008, particularly on post-cardiac arrest care, and has more than 470 peer-reviewed publications in the field.

Multi-Departmental Trainees' Research Day

April 25, 2024

University Club | 123 University Place

1:00 – 1:45 Registration and Poster Setup

2:00 – 2:05 **Opening Comments**
Patrick M. Kochanek, MD, MCCM

2:05 – 3:20 Poster Session—**Ballroom A**

3:20 – 3:30 BREAK

3:30 – 4:45 Oral Presentations—**Ballroom B**

Moderators: **Clifton W. Callaway, MD, PhD**
Distinguished Professor and Executive Vice Chair
Department of Emergency Medicine
University of Pittsburgh School of Medicine, Pittsburgh, PA

C. Edward Dixon, PhD
Neurotrauma Chair Professor
Vice Chair, Research
Director, Brain Trauma Research Center
Department of Neurological Surgery
University of Pittsburgh School of Medicine, Pittsburgh, PA

Yan Xu, PhD
Peter Winter Professor of Anesthesiology
Professor of Pharmacology & Chemical Biology, Physics &
Astronomy, and Structural Biology
Vice Chair for Basic Sciences, Department of
Anesthesiology and Perioperative Medicine
University of Pittsburgh School of Medicine, Pittsburgh, PA

Oral Presentations

Department of Anesthesiology and Perioperative Medicine

Sydney Callenberger, BS

Oxytocin Receptor in the Spinal Neuraxial Modulation of Ventricular Excitability

Department of Critical Care Medicine

Hugues Yver, MD

Blood-Based Brain Injury Biomarker Levels Are Associated with Outcome Across Arrest Location: A Personalizing Outcomes after Child Cardiac Arrest Secondary Analysis

Department of Emergency Medicine

Sara Niederberger, BS

Naloxone Administration is Associated with Improved Survival and ROSC in PEA Out-of-Hospital Arrests

Department of Neurological Surgery

Sarah Svirsky, PhD

Synaptic Neurotransmission Protein Genotypes are Associated with Post-Traumatic Epilepsy and Long-Term Outcome after Severe TBI

Department of Physical Medicine & Rehabilitation

Eleni Moschonas, BS/BA, PhD(c)

Examining the Potential Efficacy of Chronic Galantamine on Attentional Function and Cholinergic Neurotransmission after Preclinical TBI

5:00 – 5:15 Judges Meeting—**Ballroom A**

5:15 – 5:30 Trainee Awards Presentation—**Ballroom B**

Scan QR Code for Abstract Booklet



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WISER | 230 McKee Place, Suite 300

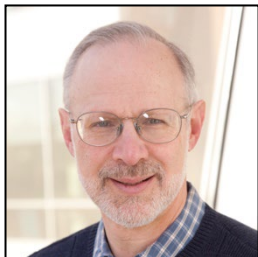
- 7:30 – 8:00 Registration and Continental Breakfast
- 8:00 – 8:15 **Opening Comments**
Patrick M. Kochanek, MD, MCCM
Distinguished Professor and Vice Chair, Critical Care Medicine
Director, Safar Center for Resuscitation Research
University of Pittsburgh School of Medicine, Pittsburgh, PA
- Paul E. Phrampus, MD, CPE, FSSH**
Director, Winter Institute for Simulation, Education and
Research (WISER)
Professor, Depts. of Emergency Medicine and Anesthesiology
University of Pittsburgh and UPMC, Pittsburgh, PA
- 8:00 – 12:00 SIMULATION AND PATIENT SAFETY**
- Moderator: John M. O'Donnell, DrPh, CRNA**
Professor and Chair, Department of Nurse Anesthesia
Director, Nurse Anesthesia Program, University of Pittsburgh
School of Nursing, Associate Director, WISER, Pittsburgh, PA
- 8:15 – 8:45 **Elizabeth (Lisa) Sinz, MD, MEd, FCCM, FSSH**
Professor of Anesthesiology and Surgery
West Virginia University School of Medicine
Associate Medical Director, Critical Care & Trauma Institute
WVU Medicine
Safety I & Safety II: Simulation Was Made for Both
- 8:45 – 8:55 Discussion
- 8:55 – 9:25 **Charles Lin, MD, MSc**
Assistant Professor
Department of Anesthesiology and Perioperative Medicine
University of Pittsburgh School of Medicine
***Using Simulation to Elevate Surgical Airway Management and
Patient Safety: Past, Present, Future***

9:25 – 9:35	Discussion
9:35 – 9:50	BREAK
9:50 – 10:20	<p>Lisa T. Barker, MD, MHPE, DipABLM Medical Director, Jump Simulation, OSF HealthCare Clinical Associate Professor of Emergency Medicine University of Illinois College of Medicine—Peoria Peoria, IL <i>Simulation for Prospective Hazard Analysis</i></p>
10:20 – 10:30	Discussion
10:30 – 11:00	<p>Moriah Adams BSN, RN and Rachel Honodel, BSN, RN Student Registered Nurse Anesthetists Nurse Anesthesia Program University of Pittsburgh <i>Development of a Simulation-Based Training Course to Increase Anesthesia Provider Knowledge, Competence, and Confidence in Ultrasound-Guided Peripheral Nerve Blockade</i></p>
11:00 – 11:10	Discussion
11:10 – 11:40	<p>Joseph S. Goode, Jr, PhD, BA, CRNA, CHSE Associate Professor Assistant Program Director and Vice Chair for Research Department of Nurse Anesthesia and UPP Department of Anesthesiology and Perioperative Medicine University of Pittsburgh School of Nursing, Pittsburgh, PA <i>Leveraging Deliberate Practice for Targeted Clinical Experience in a Nurse Anesthesia Training Program</i></p>
11:40 – 11:50	Discussion
11:50 – 12:00	<p>Morning Wrap Up / Highlights Paul E. Phrampus, MD, CPE</p> <p>Closing Comments Patrick M. Kochanek, MD, MCCM</p>

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April 25, 2024

SPEAKER PROFILES



Dr. Abbot Laptook is a Neonatologist at Women & Infants Hospital (WIH) of Rhode Island which is the primary teaching affiliate for Obstetric and Newborn Care of the Warren Alpert Medical School of Brown University. My primary research interest is hypoxic-ischemic (HI) brain injury of late preterm and term infants. Most of my investigations have involved the NICHD Neonatal Research Network (NRN) where I

served as the Principal Investigator for the Brown/ WIH center (2006 to 2023) and prior to that at UT-Southwestern (2001-2003). I have experience in laboratory research at UT-Southwestern focusing on hypothermic neuroprotection in newborn mini-swine. Based on the initiation of clinical trials with hypothermia in the NRN, I transitioned to clinical research and have been heavily involved in 4 randomized trials of hypothermia for infants with HI encephalopathy over the last 20 years.

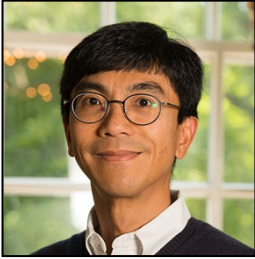


Dr. Jed A. Hartings is a graduate of the University of Notre Dame and subsequently earned his doctorate at the Center for Neuroscience University of Pittsburgh. He then served in the U.S. Army at the Walter Reed Army Institute of Research for eight years, separating from service at the rank of Major. In 2008, he joined the Department of Neurosurgery, University of Cincinnati College of Medicine, where he served six

years as Vice-Chair of Research and is now Professor.

Dr. Hartings has distinguished himself in both laboratory and clinical research on acute brain injury, contributing extensively to the current understanding of spreading depolarizations as a mechanism of lesion development in cerebral gray matter. In clinical research, he leads multi-center efforts to monitor spreading depolarizations during neurointensive care as a basis for precision medicine. He is co-founder of the international translational research consortium, Co-Operative Studies on Brain Injury Depolarizations (COSBID), and has served on the COSBID steering committee for 20 years. Dr. Hartings is the recipient of

major funding from the Department of Defense and, among other accolades, has been recognized as a Hero of Military Medicine.



Dr. Eng Lo received a BS in engineering at Yale, a PhD in biophysics from UC Berkeley, and completed a neuroscience fellowship at Stanford. In 1991, Dr. Lo joined the Massachusetts General Hospital (MGH) where he is currently Professor of Radiology and Neuroscience at Harvard. His research interests include neuroprotection and neuroplasticity in stroke and neurodegeneration, and in vivo imaging of brain

function.



Dr. Ericka L. Fink is a Professor of Critical Care Medicine, Pediatrics, and Clinical and Translational Science at the University of Pittsburgh School of Medicine. She is an attending physician in the pediatric intensive care unit (PICU) at UPMC Children's Hospital of Pittsburgh and Director of the Critical Illness Recovery for ChiLdrEn (CIRCLE)

program. She is Associate Director of the Safar Center for Resuscitation Research and PICU Fellowship Research Director. Dr. Fink's research is focused on pediatric cardiac arrest prognostication and outcomes and recovery of children with critical illness and their families. Dr. Fink is the Principal Investigator on the NIH-funded multicenter POCCA (Personalizing Outcomes after Pediatric Cardiac Arrest) study and Co-Investigator for her site's participation in the NICHD Collaborative Pediatric Critical Care Research Network (CPCCRN).



Dr. Beth Slomine is Co-Director of the Brain Injury Clinical Research Center and Assistant Vice President of Psychology at Kennedy Krieger Institute. She is also the Director of Rehabilitation Neuropsychology within the Department of Neuropsychology at Kennedy Krieger Institute. She is Professor of Psychiatry & Behavioral Sciences at Johns Hopkins University School of Medicine and has a secondary appointment

in the Department of Physical Medicine & Rehabilitation. She is a licensed psychologist, board certified clinical neuropsychologist, and board-certified subspecialist in pediatric neuropsychology. Research interests include neurobehavioral measurement, outcomes, and interventions following pediatric neurological injury. Dr. Slomine has authored >100 peer-reviewed manuscripts, numerous book chapters, and co-edited a textbook entitled *Cognitive Rehabilitation for Pediatric Neurological Conditions*.



Dr. Caitlin McNamara is a current NIH T32 Postdoctoral Scholar at the Safar Center for Resuscitation Research as well as a clinical instructor at UPMC Children's Hospital of Pittsburgh. She received her bachelor's from Georgia Institute of Technology and her medical degree from Pennsylvania State University College of Medicine. She completed her pediatrics residency and critical

care fellowship at the University of Pittsburgh. Her research focuses on abusive head trauma and exploring the variety of facets in which these patients differ from other TBI etiologies.

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SIMULATION SPEAKER PROFILES



Dr. Lisa Sinz is a Professor of Anesthesiology & Surgery at West Virginia University School of Medicine.

She completed her residency in Anesthesiology and fellowship in Critical Care Medicine at the University of Pittsburgh Medical Center followed by a research fellowship focused on Traumatic Brain Injury at the Safar Center for Resuscitation Research under the

mentorship of Dr. Pat Kochanek.

As faculty at West Virginia, she helped start their first Simulation Center. Dr. Sinz moved to the Penn State University College of Medicine, becoming a Professor of Anesthesiology and the first Associate Dean for Clinical Simulation. Dr. Sinz is a founder and past-President of the Society for Simulation in Healthcare, the largest international society dedicated to all aspects of clinical simulation. She launched their Accreditation and Certification programs and was inducted into the inaugural group as a Fellow of the Society for Simulation in Healthcare. She completed a Masters Degree in Adult Education at Penn State University in 2016, where her final paper was a qualitative study on participant outcomes from the Simulation Instructor Course that she developed. The course is now taught in English, Spanish, and Portuguese.

Dr. Sinz redesigned the Medical Emergency Team at Penn State Hershey and was a successful advocate for data-driven resuscitation quality improvement, joining education and training efforts to patient outcomes. As a Science Editor for the American Heart Association, she helped develop the educational materials for ACLS and ACLS-EP courses from the 2010 Guidelines and edited the 2015 Education and Ethics Guidelines. In 2022, she became the first Medical Director for Resuscitation at the Hershey Medical Center.

Dr. Sinz recently returned to WVU Medicine to serve as the new Associate Medical Director for the Critical Care and Trauma Institute. In her new role, she is dedicated to improving the care of critically ill and injured people across West Virginia.



Dr. Charles Lin is a clinician-investigator interested in the intersection of technology and patient safety. He is an anesthesiologist at UPMC Passavant Hospital, a tertiary care hospital, specializing in orthopedic anesthesia and acute pain medicine. His academic interests include using novel technologies for improving patient safety. He is a NIH funded investigator for evaluating novel technologies for

reducing postoperative opiate use and opiate use disorder. He was awarded the 2024 Society for Simulation in Healthcare Early Career Research Award for the development of the focused surgical airway workshop.



Dr. Lisa Barker earned her B.A. in Rhetoric from the University of California at Berkeley and worked in both business and patient relations before pivoting to a career in medicine. She is a practicing emergency medicine physician at the OSF St. Francis Medical Center in Peoria, Illinois, the Medical Director for Jump Simulation for OSF HealthCare. She served as the Director of Simulation Education for the affiliated

University of Illinois College of Medicine at Peoria Emergency Medicine Residency Program for 10 years before taking on leadership roles at Jump, and earned her MHPE from University of Illinois at Chicago. She has over 15 years' experience in the implementation, execution and evaluation of simulation-based programs. She has presented lectures and workshops on demonstrating the value of simulation for regional, national and international audiences, with a special focus on processes that link simulation resources to institutional strategic initiatives and related outcomes, including demonstrating return on investment (ROI).



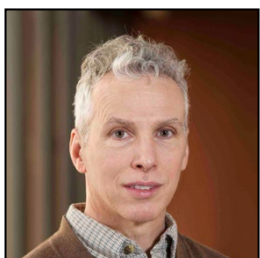
Ms. Moriah Adams is a nurse anesthesia student at the University of Pittsburgh School of Nursing, Nurse Anesthesia Program. Moriah completed her BSN at the Medical University of South Carolina and went on to work at Roper St. Francis Hospital in Charleston, South Carolina in the Surgical ICU and COVID-19 ICU. During her time at the University of Pittsburgh, Moriah has received Clinical Honors, is currently serving as

class secretary, and is employed as a tutor for the School of Nursing.



Ms. Rachel Honodel is a nurse anesthesia student at the University of Pittsburgh School of Nursing, Nurse Anesthesia Program. Rachel received her Bachelor of Science in Psychology from Virginia Tech, and then went on to complete her BSN at The George Washington University. She worked at MedStar Washington Hospital Center in Washington, D.C. in the CVSICU, and then travel-nursed at different

Cardiovascular ICUs before starting Graduate School. Since being at the University of Pittsburgh, Rachel has served as a SRNA representative on the PANA Government Relations Committee.

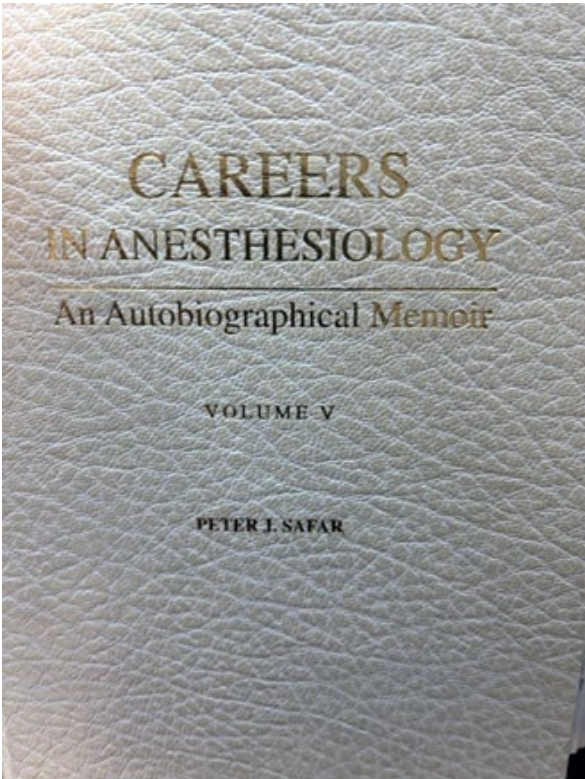


Dr. Joseph S. Goode has been involved in the healthcare simulation field since 2000 and in clinical and laboratory research since 1979. He is an Associate Professor and Vice-Chair for Research and Scholarship with the University of Pittsburgh School of Nursing, Department of Nurse Anesthesia and a staff CRNA at UPMC Presbyterian Hospital. He holds BSN, MSN and PhD degrees from the University of

Pittsburgh and a BA in Fine Arts and Biological Sciences from the University of Michigan. His current primary areas of expertise and research include healthcare simulation methodologies (the use of Hierarchical Task Analysis, the role of theoretical models and the quantitative and qualitative measurement of translation from the simulation setting to clinical practice and its impacts on patient safety). His clinical research is focused on applications of High Frequency Jet Ventilation, having trained and worked with Miroslav Klain. Dr. Goode has presented or been published nationally and internationally in areas as diverse as anesthesia, artificial organ development, emergency medicine, healthcare simulation and the history and philosophy of science and medicine.

We are pleased to announce that a digital copy of Peter Safar's Autobiography, Volume 5 of the Careers in Anesthesiology series published in 2000 by the Wood Library-Museum of Anesthesiology, is now available free of charge on the Wood Library website.

Scan QR Code for Dr. Safar's Autobiography



NOTES

The Safar Center for Resuscitation Research gratefully acknowledges the support of our sponsors:

Dr. Ake N. Grenvik Endowed Chair in Critical Care Medicine
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Department of Emergency Medicine
Department of Neurological Surgery
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Peter M. Winter Institute for Simulation, Education and Research
S. William Stezoski Family
Allan Braslow and Virginia Klunder
UPMC Children's Hospital of Pittsburgh
Safar Symposium Planning Committee

The 21st Annual Safar Symposium is hosted by Patrick M. Kochanek, MD, MCCM, Director of the Safar Center for Resuscitation Research, and Aman Mahajan, MD, PhD, MBA, Chair of the Department of Anesthesiology and Perioperative Medicine.

Committee members are:

Clifton W. Callaway, MD, PhD
Robert S.B. Clark, MD
C. Edward Dixon, PhD
Anthony E. Kline, PhD

John O'Donnell, DrPH, CRNA
Paul E. Phrampus, MD, CPE
Amy K. Wagner, MD
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